

A Response to *Is Doing Business Damaging Business*

Simeon Djankov¹
The World Bank

January 2008

Abstract Simplifying entry regulation has been a popular reform since the publication of de Soto (1989) and Djankov et al (2002). The inclusion of business entry indicators in the World Bank's *Doing Business* project has led to a further acceleration in reform. A contrarian view posits that such reforms reduce legal certainty without bringing positive economic or social benefits. This note suggests that this worry is unfounded. The resistance to reforms has come from the beneficiaries of complex entry regulation: notaries, corrupt judges, court clerks and other government officials. In every reform country, these have fought hard to maintain their rents, which come at the expense of new jobs, new businesses, more investment, less corruption and a smaller informal sector.

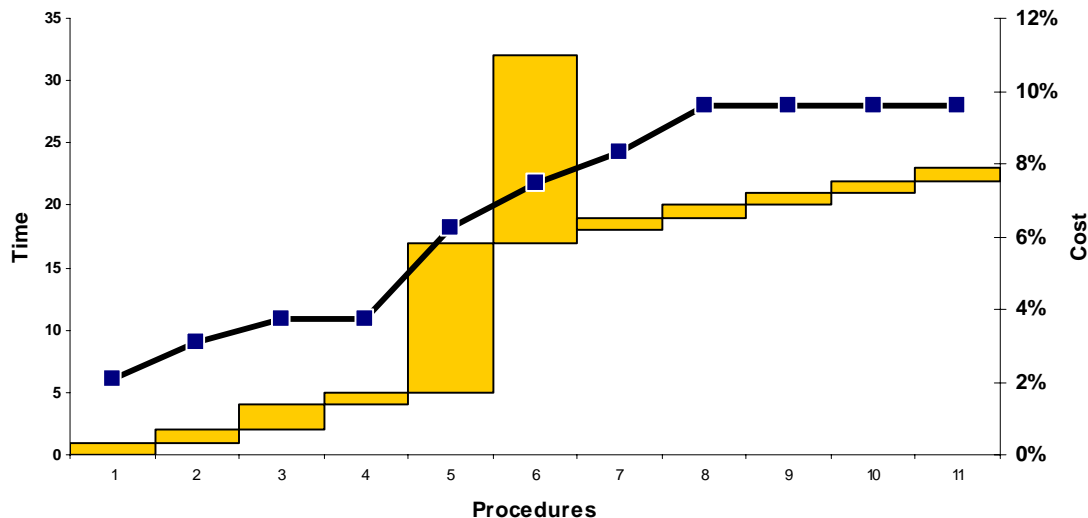
¹ Corresponding author: Sdjankov@worldbank.org. Andrei Shleifer and Sylvia Solf provided comments on an earlier draft.

Introduction

In the summer of 2005, I decided to finance a new business in Bulgaria. The business was simple: build and run a 25-rooms hotel.

Little I knew that a whole month would be needed to fulfill all the requirements to establish the business. It took 11 different procedures and 32 days (figure 1). In the process, I had to go to the district court and book a name for the new business, at a cost of 100 Bulgarian lev (\$55); visit the notary to certify my signature, the signature of the would-be manager and every page of the company's articles of incorporation, at a cost of 150 lev; register the documents with a judge, at a cost of 122 lev; publish a notice of establishment in the State Gazette, which cost 30 lev; make a company seal and present it to the court's clerk for approval, at a cost of 40 lev; register the business with the statistical office, at a cost of 60 lev; and register with the tax office, where I had to show a paid-in capital of 5,000 lev. Some of the procedures needed to be done in the town of the hotel's location (Aprilzi), others in the regional capital (Lovech), while the publication in the State Gazette and the registration with the statistical office had to be done in the capital city (Sofia).

Figure 1: Starting a business in Bulgaria, 2005



Source: World Bank's Doing Business database, available at www.doingbusiness.org.

Note: The horizontal axis lists the number of procedures necessary to start a business in Bulgaria. These are as follows: obtain a pre-approved name, notarize articles of incorporation, deposit minimum capital at a bank, pay court fee at the treasury, register at the district court, publish a notice in the State Gazette, issue a company seal, register with the statistical office, register with the national social security institute, register for corporate taxes, and register for VAT. The left vertical bar registers the time necessary to fulfill each procedure, in calendar days. The right vertical bar registers the cost, as a percentage of GNI per capita.

On January 2nd 2008, a new Business Register Law took effect in Bulgaria. It now takes two procedures to start a business: pay the minimum capital requirement (still at 5,000 lev) and get a receipt; then apply for a business identification number at the newly-opened Business Registry. The latter can be done online (at www.businessregister.bg)

and combines all the remaining procedures. Once the identification number is issued, the registrar sends it via the internet to the tax office, statistical office and the court; and also publishes a notice on the Registry's website.

The registration now costs 160 lev and is completed within a week. You could get the registration on the internet. A notice in the State Gazette is no longer needed. Nor is the entrepreneur required to have the company documents notarized or presented at the court.

Bozhidar Danev, head of the Bulgarian Business Chamber gave the reform a positive review: "The electronic Business Register is a big step forward, and will for sure make it easier for businesses and also reduce corruption."²

In contrast, Arrunada (2007) considers it a step backwards. The abstract of his paper states: "Both governments and international aid organizations have been devoting large amounts of resources to "simplifying" the procedures for setting up and formalizing firms. Many of these actions have focused on reducing the initial costs of setting up the firm, disregarding the more important role of business registers as a source of reliable information for judges, government departments, and, above all, other firms. ... The priorities of reform policies should therefore be thoroughly reviewed, stressing the value of the legal institutions rather than trivializing them as is often the case."

Arrunada further suggests that such reform damages business. This is because it reduces legal certainty. Instead, "the opinion of judges and administrative users should receive special consideration when evaluating and supervising reforms." What about the opinion of business people? They may not understand their best interest: Arrunada concludes the paper by saying that "positive evaluations made by entrepreneurs regarding the speed or functioning of formalization systems should be treated with caution as they are often based on partial views."

In this note, I present evidence of the benefits of start-up reform. The main thesis is that what Arrunada (2007) argues as a case of legal certainty is simply resistance to reforms by lobbies that benefited from the previous burdensome regime: notaries, corrupt judges, court clerks and other government officials. In many reform countries, these have fought hard to maintain their rents. The biggest cost of high barriers to entry is informality: many businesses rationally decide not to register (Djankov et al, 2008). Being informal, these have no legal certainty whatsoever. Neither do their customers or suppliers.

The paper proceeds as follows. Section 1 reviews the origins of business entry reforms and uses the World Bank's *Doing Business project* to compile a 2004-2007 database of reforms that simplified the procedures for business entry. Section 2 reviews the evidence on the economic and social benefits of such reforms. Section 3 concludes.

² Cited in the newspaper *Dnevnik*, January 3, 2008 (p5).

1. The regulation of entry

In *The Other Path*, Hernando de Soto (1989) shows that the prohibitively high cost of establishing a business in Peru denies economic opportunity to the poor. In 1983, de Soto's research team followed all necessary bureaucratic procedures in setting up a one-employee garment factory in the outskirts of Lima. Two hundred and eighty-nine days and \$1,231 later, the factory could legally start operation. The cost amounted to three years of wages—not the kind of money the average Peruvian entrepreneur has at his disposal. “When legality is a privilege available only to those with political and economic power, those excluded—the poor—have no alternative but illegality,” writes Mario Vargas Llosa in the foreword to de Soto's book.

This sentiment is not new. Well into the 19th century, European companies required a state charter or a concession from the state to be registered, and only the rich could afford it. In France, free registration for private companies was proclaimed in 1791, in the aftermath of the revolution. In England, free incorporation was allowed in 1844, a consequence of expanding the franchise to the middle classes.

When European corporate law was transplanted to other parts of the world, whether through willing appropriation or through colonization, it affected the formation of business entities. The 1865 Commercial Code in Chile, following the 1848 Spanish Code, required two separate presidential decrees for company incorporation. In contrast, the first Commercial Code of Colombia, adopted in 1853, did not contain the requirement to obtain a concession from the state. This departure from the Spanish Code was made in the belief that free business incorporation is a right (Berkowitz, Pistor and Richard, 2003).

More recently, Djankov et al (2002) has attracted the attention of researchers and development experts to the field of measuring entry regulation. Following de Soto (1989), it records the number of procedures, time and cost to start a business in 85 countries. The main finding: “heavier regulation of entry is generally associated with greater corruption and a larger unofficial economy, but not with better quality of private or public goods. Entry is regulated more heavily by less democratic governments, and such regulation does not yield visible social benefits.”

Djankov et al (2002), together with Djankov et al (2003a, b) and Botero et al (2004), also resulted in another development: the World Bank's *Doing Business* project.³ Published annually, *Doing Business* tracks regulatory reforms in 178 economies and documents the fastest as well as the slowest reformers. The report also summarizes the recent research in the area of business regulation.

These research findings have been used to motivate simplification of business start up. Since the publication of “The regulation of entry”, 93 countries have done 141 reforms (annex table 1). Arrunada calls it “the most popular reform. And it is not only the World

³ Five other research papers constitute the basis of the Doing Business project: Djankov et al (2006), Djankov et al (forthcoming), Djankov, McLiesh and Shleifer (2007), Djankov, Freund and Cong (2007), Djankov et al (2008).

Bank itself that has been using the *Doing Business* data internally for imposing conditions on its debtors. The Millennium Challenge Corporation, a mechanism devised by the United States to channel aid to developing countries, also uses these and similar markers to identify the countries that most deserve development aid.” (p.731).

The seven most popular types of reforms cited in various *Doing Business* reports are: cutting antiquated formalities, standardizing incorporation documents, cutting the minimum capital requirement, moving registration out of the courts, making the use of notaries optional, introducing a one-stop shop for business start-up, and allowing online registration (World Bank 2003, p. 26; World Bank 2005, p.12; World Bank, 2007, p. 12).

Cut antiquated formalities

Some requirements are leftovers from a bygone era. One example is the requirement for a company seal or stamp—still on the books in 81 countries. In 7 of these, entrepreneurs have to get official approval to make a seal. In Laos the Ministry of Industry and Commerce designs the seal, while the Ministry of Public Security issues a permit to the entrepreneur to carve and register it.

In earlier centuries a seal symbolized the legal identity of a business and authenticated all its contracts. Now most documents are sent electronically. More than 100 countries have regulations allowing electronic signatures. These cost nothing and are more difficult to forge.

Standardize incorporation documents

In El Salvador 70% of new business applications are rejected for flawed or insufficient paperwork. In Kazakhstan, 65%. By contrast, the rejection rate is only 10% in Mauritius.

The difference is using standard incorporation documents. With these, entrepreneurs ensure legality without the need of notaries or lawyers. And the workload eases at the registry, preventing errors and speeding processing. In 2004 the Slovak business register issued such standardized forms on its website. If submitted incorporation documents are found to be incomplete, companies have 15 days to correct the errors and re-file their application without paying additional fees. Only about a quarter of applications are returned for correction, and those are approved within 2 weeks. Before, rejected applications took up to 6 months to resolve in a civil court procedure.

In Jamaica one document—the articles of incorporation—is now required to form a company, after a reform in 2005. It takes 22 fewer days to start a business. After Estonia introduced standard documents in 2006, processing time at the registry fell from 15 days to 1. Another 65 countries have standard forms—including China, Egypt, Malaysia, Oman and South Africa, and now Bulgaria.

Cut the minimum capital requirement

An effective reform of business entry is to cut the capital requirement. Some countries justify the capital requirement as protecting creditors, as protecting the company against insolvency and as protecting consumers against bad products. But this makes little sense.

Lenders base their decisions on commercial risk, not whether a business meets a government-imposed capital requirement.

And in many countries, for example in Bulgaria, minimum capital can be paid with in-kind contributions or withdrawn immediately after registration—hardly of value in insolvency. Recovery rates in bankruptcy are no higher in countries with capital requirements than in those without (Djankov et al, 2006).

In 20 economies the capital requirement is still a major obstacle to starting a business: Syria, Yemen, Guinea-Bissau, Ethiopia, Jordan, Niger, Timor-Leste, Togo, Oman, the Central African Republic, Djibouti, Mauritania, Eritrea, Guinea, Mali, Burkina Faso, Chad, Benin, Madagascar and the United Arab Emirates. In these, an entrepreneur needs to put up at least 3 times the average annual income to register—and often much more. Aside from Timor-Leste, all are in Africa and the Middle East. Syria has the highest requirement, with minimum capital equivalent to 37 times the annual income per capita (table 1). Yemen comes next, requiring 20 times the average annual income. However, in December 2007 the Yemeni government issued a draft law that will reduce the requirement to a nominal value.

Table 1: An antiquated requirement: minimum capital

| Paid-in minimum capital | | |
|--------------------------|------------------------|--------|
| Most | % of income per capita | US\$ |
| Central African Republic | 531 | 1,912 |
| Oman | 542 | 51,947 |
| Togo | 546 | 1,912 |
| Timor-Leste | 595 | 5,000 |
| Niger | 736 | 1,912 |
| Jordan | 795 | 21,157 |
| Ethiopia | 960 | 1,728 |
| Guinea-Bissau | 1,007 | 1,912 |
| Yemen | 2,003 | 15,225 |
| Syria | 3,673 | 57,670 |

Note: Sixty-five countries have no paid-in minimum capital requirement.
Source: Doing Business database.

Move registration out of the courts

Company registration is an administrative process. Moving it out of the courts allows judges to focus on commercial disputes. A recent example is Italy, which until 1998 had the most cumbersome regulation of any European economy, with the process taking 4 months. Registration was taken out of the courts in 2004, cutting off 3 months. Further reforms in 2005 reduced the time to only 13 days.

Several Latin American countries, including Chile, Honduras and Nicaragua, have taken registration out of the hands of judges. The benefits are large: entrepreneurs in countries

where registration is a judicial process spend 14 more days to start a business (World Bank 2004).

Make the use of notaries optional

A second group of reformers, including Bosnia and Herzegovina, Hungary and Romania, eliminated the need for mandatory use of notaries. Romania made optional the use of notaries in business registration. Notaries perform a simple verification service—such as certifying that minimum capital has been deposited in the Republic of Congo or verifying the founder’s signatures in Hungary—which could easily be handled by the business registry official already involved in registration.

Where notaries are needed to authorize documents, this is frequently the most expensive part of the business registration. In Mexico, notary costs are \$875, almost 80 percent of the total costs. In Turkey, notarization costs \$780, 84 percent of the registration cost. In Guatemala it costs \$850, 73 percent; in Slovenia, \$920, 67 percent; and in Angola, 2,800, 51 percent.⁴

Introduce a one-stop shop

One-stop shops have been the most common reform in business start-up—24 countries have created one since 2003. On average this has combined 5 procedures from the start-up process into a single procedure and more than halved delays. One-stop shops can show results quickly. Azerbaijan created one in 8 months; Cairo and Alexandria, in Egypt, did so in less than a year.

Reformers have chosen different ways to merge procedures. Most European countries—including Belarus, Bulgaria, Georgia, Hungary, Kazakhstan, Lithuania, Macedonia, Portugal, Russia and Slovakia—have delegated formalities such as tax and statistical registrations to the business registrar. In Latin America one-stop shops bring officials from different agencies together in one location—such as in El Salvador, Guatemala, Nicaragua and Paraguay.

Allow online start-up

In Denmark, an entrepreneur can start a business without leaving the house. Using the internet, the entrepreneur can obtain a digital signature, register with the business registry and tax authority and submit the incorporation documents. All data are automatically validated—no public officials are involved. The entrepreneur receives a business identification number online, and the company notice is published on the web.

Since 2003, 17 countries have introduced electronic registration, including Belgium, Ireland, Mauritius and Norway, and, since this January, Bulgaria. This cut the average time to start a business in those countries from 40 days to 14. And with no contact between the entrepreneur and the public official, no bribes can change hands. Online start-up works best in countries with high Internet penetration and laws allowing electronic signatures.

⁴ These statistics are available at www.doingbusiness.org.

As a start, countries can introduce online name search and publication or computerize registration records. Since 2005 Germany, Macedonia, Mozambique and Serbia have made the company establishment notice electronic, saving up to 3 months in waiting time. Online name checking is now available in Croatia, Moldova, Nigeria and Vietnam. Such reforms are cheap. When Guatemala made registry records electronic, it took 5 months to scan nearly 2 million files, all at a cost of \$100,000. The Serbian government spent \$1.5 million to establish the business registry, hire and train its staff, purchase the necessary software, build the website and digitize all previous records.

2. The benefits of start-up reform

The use of new technology—the internet—allows business start-up to become more efficient while increasing legal certainty. The substance of the law remains unchanged: the way that the law is implemented improves. For example, instead of posting an incorporation notice in the State Gazette, a new business can do so on the business registry’s website. This is not only more efficient, it allows a prospective customer or business partner to search the website and verify the information. Previously, the customer had to either go to the National Archive and search all hard copies of the State Gazette or employ a lawyer to do this search.

Another example of increased legal certainty is the use of electronic signatures to verify incorporation documents’ authenticity, instead of relying on notaries. Electronic signatures are difficult to temper with. Once a copy of such a signature resides in the registry, it can be compared with any future document the business issues without a need to look through court files.

A third example is the use of standard incorporation forms, which eliminate the need for judge’s supervision. This is because the use of standard forms prevents legal mistakes in the documents. Particularly small and medium-sized entrepreneurs with simple company structures benefit. Judges can dedicate their time instead to resolving disputes.

But the biggest benefit of lower barriers to start-up is reducing the size of the informal sector. Djankov et al (2002), Masatlioglu and Rigolini (2006), Kaplan et al (2007) and Djankov et al (2008), among others, show that lowering entry costs encourages businesses to become formal. This results in a boost in legal certainty: the newly-formal businesses, their customers and suppliers all can now use the legal system.

The reduced costs of entry also encourage entrepreneurship, generate new jobs, and alleviate corruption. Djankov et al (2002) started a large literature on these effects of start-up reform.⁵ Some examples include Alesina et al (2005), Perotti and Volpin (2005), Klapper, Laeven and Rajan (2006), Fisman and Sarria-Allende (2006), Antunes and Cavalcanti (2007), Barseghyan (forthcoming), Helpman and others (forthcoming) and Djankov et al (2008).

⁵ A January 5, 2008 reference to the Social Science Citation index identifies 163 papers published in refereed academic journals. Another 122 working papers, identified in Google Scholar, use the regulation of entry data.

Using industry-level data for OECD countries, Alesina et al (2005) find that business start-up reforms have a significant positive impact on investment in the transport, communication, and utilities industries. Klapper, Laeven and Rajan (2006) use a large database of European firms to study how business entry regulation drives the creation of new firms. They find that entry regulations hamper entrepreneurship, especially in industries that would naturally have high entry, for example retail. Value-added per employee in these industries grows more slowly in countries with onerous regulations on entry. The authors conclude: “Taken together, the evidence suggests bureaucratic entry regulations are neither benign nor welfare improving.” Fisman and Sarria-Allende (2004) corroborate these findings using the 85-country sample from Djankov et al (2002).

Barseghyan (forthcoming) looks at output per worker in 157 countries and total factor productivity in 97 countries. He finds that “an increase in entry costs by 80% of income per capita, which is one half of their standard deviation in my sample, is estimated to decrease total factor productivity and output per worker by 22% and 29%, respectively.” The magnitudes are large: one reason may be that an increase in entry costs decreases entry pressure, allowing existing firms with lower productivity to survive. This is consistent with Banerjee and Duflo (2005), who show that productivity differences arise because in countries with large start-up costs the share of relatively unproductive or technologically backward firms is large. Indeed, Bruhn (2007) finds that competition from new entrants lowered prices by 1 percent and decreased the income of incumbent businesses by 3.5 percent.

Other researchers have done country-specific studies that use more detailed data on entry regulations and their effect: for example, Kaplan et al (2007) on Mexico, Chari (2007) on India, Monteiro and Assuncao (2006) on Brazil, and Yakovlev and Zhuravskaya (2007) on Russia. These studies uniformly conclude that simplified entry regulations lead to more new firms being established. For example, Kaplan et al (2007) study the effect of simplifying municipal licenses (one of 11 necessary procedures to start a business in Mexico) and find that “new start-ups increased by about 4 percent in eligible industries, and we present evidence that this is a causal effect.”

These results are also obtained in cross-country studies. Using the initial 85-country sample and new data on business start-ups, Djankov and others (2008) find that “an extra procedure for business entry reduces the entry rate by 0.32 percentage points, so going from barely regulated to most regulated countries would reduce the entry rate by as much as 5 percentage points per year.”

Another line of research investigates the link between entry regulation and job creation, for example Dulleck et al (2006), Calderon, Chong and Leon (2007), Micco and Pages (2006). Dulleck’s findings are summarized in the abstract: “we show that reducing the start-up costs for new firms results in higher take-up rates of education. It also gives rise to higher rates of job creation for high-skilled labor as well as average productivity.”

Freund and Bolaky (forthcoming), Chang et al (2005), Lopez de Cordova (2007), Cunat and Melitz (2007) and Helpman and Itskhoki (2007) study the effect of entry regulation

when economies open up their product markets to international competition. The general finding is that with simplified business start-up, economies benefit significantly from such openness and create large employment opportunities. Helpman et al (forthcoming) provides an explanation: with high fixed costs of entry, firms do not move easily towards the industries that most benefit from trade openness. This friction dulls the value of increased openness.

Finally, Svensson (2005) uses the regulation of entry data to find a correlation between the number of days to start a business and corruption in the courts. Kaufmann, Kraay and Mastruzzi (2007) corroborate this finding in a larger sample.

3 Conclusions

This note presents evidence to suggest that the concerns voiced in Arrunada (2007) are misplaced. Business entry reforms make it easier to enforce the law, and in doing so increase the social value of regulation. Most importantly, they reduce informality: the biggest constraint to legal certainty in developing countries.

The success of entry reforms worries the groups that benefited from a complex registration system. Djankov et al (2002) ends with the sentence “The principal beneficiaries [of a complex system] appear to be the politicians and bureaucrats themselves.” The work on the *Doing Business* project has identified other aggrieved groups as well: corrupt judges and court clerks, who take bribes in exchange for speeding up registration; and notaries, who collect large rents from an inefficient system. Indeed, in June 2007 the European Commission brought to court the notary associations of 6 member countries (Belgium, Germany, Greece, France, Luxembourg and Austria) for anti-competitive practices. The verdict is expected soon: judges in the European Court of Justice do not deal with business registrations.

References

Alesina, Alberto, Silvia Ardagna, Giuseppe Nicoletti, and Fabio Schiantarelli, 2005, "Regulation and Investment," *Journal of the European Economic Association*, 7, 3: 791-825.

Antunes, Antonio, and Tiago Cavalcanti, 2007, "Start Up Costs, Limited Enforcement, and the Hidden Economy," *European Economic Review*, 51, 1: 203-224.

Arrunada, Benito, 2007. Pitfalls to avoid when measuring institutions: Is *Doing Business* damaging business?, *Journal of Comparative Economics*, 35(4), 729-747.

Banerjee, A. V., and Esther Duflo (2005): "Growth Theory Through the Lens of Development," in *Handbook of Economic Growth*, ed. by P. Aghion, and S. Durlauf, pp. 473—552. Elsevier Science, North-Holland, New York.

Berkowitz, Daniel, Katharina Pistor and Jean-Francois Richard, 2003. "The Transplant Effect," *American Journal of Comparative Law*, 51(1): 163-204.

Barseghyan, Levon, forthcoming, "Entry costs and cross-country differences in productivity and output," *Journal of Economic Growth*.

Botero, Juan, Simeon Djankov, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, 2004, "The regulation of labor," *Quarterly Journal of Economics*, 119, 4: 1339-82.

Bruhn, Miriam, 2007, "License to sell: Business start-up reform in Mexico," Department of Economics, MIT, mimeo.

Calderon, Cesar, Alberto Chong and Gianmarco Leon, 2007, "Institutional Enforcement, Labor-Market Rigidities, and Economic Performance," *Emerging Markets Review*, 8, 1: 38-49.

Chang, Roberto, Linda Kaltani, and Norman Loayza, 2005, "Openness can be good for growth: the role of policy complementarities," Policy research working paper 3763, The World Bank, Washington DC.

Chari, A, 2007, "License reform in India: theory and evidence," Department of Economics, Yale University, New Haven, Connecticut.

Cunat, Alejandro, and Marc Melitz, 2006, "Volatility, labor market flexibility, and the patterns of comparative advantage," Department of Economics, Princeton University, mimeo.

De Soto, Hernando, 1989, *The Other Path* (New York, NY: Harper and Row).

Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes and Andrei Shleifer, 2002, "The Regulation of Entry," *Quarterly Journal of Economics*, 117, 1: 1-37.

Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, 2003a, "Courts," *Quarterly Journal of Economics*, 118, 2: 453-517.

Djankov, Simeon, Edward Glaeser, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer. 2003b. "The new comparative economics." *Journal of Comparative Economics*, 31(1): 595-619.

Djankov, Simeon, Oliver Hart, Caralee McLiesh, and Andrei Shleifer, 2006, "Debt enforcement around the world," NBER Working Paper No 12807, Cambridge, Massachusetts.

Djankov, Simeon, Caroline Freund and Cong Pham, 2007, "Trading on Time," mimeo, World Bank, Washington DC.

Djankov, Simeon, Caralee McLiesh, and Andrei Shleifer, 2007, "Private credit in 129 Countries," *Journal of Financial Economics*, 84, 2: 299-329.

Djankov, Simeon, Timothy Ganser, Carael McLiesh, Rita Ramalho, and Andrei Shleifer, 2008, "The effects of corporate taxation on investment and entrepreneurship." Department of Economics, Harvard University, mimeo.

Djankov, Simeon, Rafael La Porta, Florencio Lopez-de-Silanes, and Andrei Shleifer, forthcoming, "The law and economics of self-dealing," *Journal of Financial Economics*.

Dulleck, Uwe, Paul Frijters and Rudolf Winter-Ebmer, 2006, "Reducing Start-Up Costs for New Firms: The Double Dividend on the Labor Market," *Scandinavian Journal of Economics*, 108, 2: 317-337.

Fisman, Raymond, and Virginia Sarria-Allende, 2004, "Regulation of entry and the distortion of industrial organization," NBER Working Paper No 10929, Cambridge, Massachusetts.

Freund, Caroline, and Bineswaree Bolaky, forthcoming. "Trade, regulation and income," *Journal of Development Economics*.

Helpman, Elhanan, Marc Melitz, and Yona Rubinstein, forthcoming. "Estimating trade flows: trading partners and trading volumes," *Quarterly Journal of Economics*.

Helpman, Elhanan, and Oleg Itskhoki, 2007, "Labor market rigidities, trade and unemployment," Department of Economics, Harvard University, Cambridge, Massachusetts.

Kaplan, David, Eduardo Piedra, and Enrique Seira, 2007, "Entry regulation and business start-ups: evidence from Mexico," Policy Research working paper 4322, World Bank, Washington DC.

Kaufmann, Daniel, Aart Kraay, and Massimo Mastruzzi, 2007, "Governance Matters VI: Governance Indicators for 1996-2006," Policy Research working paper 4280, The World Bank, Washington DC.

Klapper, Leora, Luc Laeven, and Raghuram Rajan, 2006, "Entry regulation as a barrier to Entrepreneurship," *Journal of Financial Economics*, 82, 3: 591-629.

Lopez-de-Cordova, Ernesto, 2007, "Labor regulation and the allocative efficiency of international trade," mimeo, World Bank, Washington DC.

Masatlioglu, Yusufcan, and Jamele Rigolini, 2006, "Informality traps," Department of Economics, University of Michigan, Ann Arbor, Michigan.

Micco, Alejandro, and Carmen Pagés, 2006, "The Economic Effects of Employment Protection: Evidence from International Industry-Level Data," Discussion Paper 2433, Institute for the Study of Labor, Bonn, Germany.

Monteiro, Joana, and Juliano Assuncao, 2006, "Outgoing the shadows: estimating the impact of bureaucratic simplification and tax cuts on informality and investment," Pontifical Universidade Catolica, Department of Economics, Rio de Janeiro, Brazil.

Perotti, Enrico, and Paolo Volpin, 2004, "Lobbying on entry," CEPR Discussion Paper No. 4519, London, UK.

Svensson, Jakob, 2005, "Eight Questions about Corruption," *Journal of Economic Perspectives*, 19, 3: 19-42.

World Bank, 2003, *Doing Business in 2004: Understanding Regulation*, Washington DC.

World Bank, 2005, *Doing Business in 2006: Creating Jobs*, Washington DC.

World Bank, 2006, *Doing Business 2007: How to Reform*, Washington DC.

World Bank, 2007, *Doing Business 2008*, Washington DC.

Yakovlev, Evgeny, and Ekaterina Zhuravskaya, 2007, "Deregulation of business," New Economic School, Moscow, Russia, available at SSRN: <http://ssrn.com/abstract=965838>.

Annex Table 1: Simplifying business start-up, 2004-2007

| Economy | Reforms 2004 | Reforms 2005 | Reforms 2006 | Reforms 2007 | # of procedures 2003 | # of days 2003 | Cost as a % of GNI pc 2003 | Min. Paid-up Capital % of GNI pc 2003 | # of procedures 2007 | # of days 2007 | Cost as a % of GNI pc 2007 | Min. Paid-up Capital % of GNI pc 2007 |
|------------------------|---------------------|---------------------|---------------------|---------------------|-----------------------------|-----------------------|-----------------------------------|--|-----------------------------|-----------------------|-----------------------------------|--|
| Afghanistan | 0 | 1 | 0 | 0 | n.a. | n.a. | n.a. | n.a. | 4 | 9 | 84.62 | - |
| Albania | 1 | 0 | 0 | 0 | 11 | 41 | 56.9 | 45.3 | 10 | 36 | 25.56 | 34.31 |
| Antigua and Barbuda | 0 | 0 | 1 | 0 | n.a. | n.a. | n.a. | n.a. | 7 | 21 | 11.81 | - |
| Argentina | 1 | 0 | 0 | 0 | 15 | 68 | 12.4 | 9.3 | 14 | 31 | 9.75 | 4.76 |
| Armenia | 0 | 0 | 1 | 0 | 10 | 25 | 8.4 | 5.4 | 9 | 18 | 4.79 | 3.11 |
| Australia | 0 | 0 | 0 | 1 | 2 | 2 | 2.0 | 0.0 | 2 | 2 | 0.84 | - |
| Azerbaijan | -1 | 1 | 1 | 1 | 15 | 106 | 16.8 | 0.0 | 13 | 30 | 6.93 | - |
| Belarus | 0 | 0 | 1 | 1 | 16 | 79 | 18.6 | 62.8 | 10 | 48 | 8.81 | 29.69 |
| Belgium | 1 | 0 | 1 | 1 | 7 | 56 | 11.1 | 24.1 | 3 | 4 | 5.33 | 20.14 |
| Benin | 0 | 0 | 1 | 0 | 7 | 32 | 177.8 | 352.1 | 7 | 31 | 194.96 | 354.16 |
| Bhutan | 0 | 0 | 0 | 1 | n.a. | n.a. | n.a. | n.a. | 8 | 48 | 10.43 | - |
| Bolivia | 0 | 1 | 0 | 0 | 15 | 60 | 175.6 | 4.8 | 15 | 50 | 134.15 | 3.40 |
| Bosnia and Herzegovina | 1 | 0 | 0 | 0 | 12 | 59 | 46.3 | 339.4 | 12 | 54 | 30.07 | 43.05 |
| Bulgaria | 0 | 0 | 1 | 0 | 11 | 32 | 10.4 | 123.8 | 9 | 32 | 8.37 | 56.26 |
| Burkina Faso | 0 | 0 | 1 | 1 | 12 | 45 | 147.0 | 531.1 | 6 | 18 | 82.11 | 415.75 |
| Cambodia | 0 | 1 | 0 | 0 | 11 | 94 | 534.8 | 438.9 | 10 | 86 | 190.31 | 50.77 |
| China | 0 | 0 | 1 | 0 | 13 | 48 | 17.8 | 1236.5 | 13 | 35 | 8.39 | 190.17 |
| Colombia | 1 | 0 | 0 | 0 | 19 | 60 | 28.7 | 0.0 | 11 | 42 | 19.32 | - |
| Congo, Dem. Rep. | 1 | 0 | 0 | 0 | 13 | 188 | 763.0 | 270.6 | 13 | 155 | 487.20 | - |
| Côte d'Ivoire | 1 | 1 | 0 | 0 | 11 | 62 | 139.5 | 212.5 | 10 | 40 | 135.76 | 219.82 |
| Croatia | 0 | 0 | 1 | 1 | 12 | 49 | 16.9 | 25.5 | 8 | 40 | 11.66 | 18.36 |
| Czech Republic | 0 | 0 | 1 | 1 | 10 | 40 | 10.0 | 47.4 | 10 | 17 | 10.56 | 34.90 |
| Denmark | 0 | 1 | 0 | 0 | 4 | 6 | 0.0 | 49.8 | 4 | 6 | - | 40.66 |
| Dominican Republic | 0 | 0 | 0 | 1 | 10 | 78 | 28.3 | 2.3 | 9 | 22 | 31.09 | 0.00 |
| Ecuador | 0 | 1 | 0 | 0 | 14 | 92 | 51.6 | 11.3 | 14 | 65 | 29.23 | 7.04 |
| Egypt | 0 | 1 | 1 | 1 | 13 | 37 | 65.6 | 855.4 | 7 | 9 | 28.60 | 12.89 |
| El Salvador | 0 | 1 | 1 | 0 | 12 | 115 | 127.4 | 133.2 | 9 | 26 | 73.12 | 112.49 |
| Estonia | 0 | 1 | 0 | 1 | 6 | 72 | 8.0 | 53.0 | 5 | 7 | 2.04 | 28.12 |
| Ethiopia | 1 | 0 | 1 | 0 | 8 | 44 | 483.9 | 1964.2 | 7 | 16 | 41.28 | 959.96 |
| Finland | 1 | 0 | 0 | 1 | 3 | 31 | 1.1 | 29.8 | 3 | 14 | 1.02 | 7.72 |
| France | 1 | 0 | 0 | 0 | 9 | 42 | 1.3 | 29.2 | 5 | 7 | 1.06 | 0.00 |

| Economy | Reforms 2004 | Reforms 2005 | Reforms 2006 | Reforms 2007 | # of procedures 2003 | # of days 2003 | Cost as a % of GNI pc 2003 | Min. Paid- up Capital % of GNI pc 2003 | # of procedures 2007 | # of days 2007 | Cost as a % of GNI pc 2007 | Min. Paid- up Capital % of GNI pc 2007 |
|----------------|-------------------------|-------------------------|-------------------------|-------------------------|-------------------------------------|---------------------------|---|---|-------------------------------------|---------------------------|---|---|
| Georgia | 0 | 1 | 1 | 1 | 9 | 25 | 22.9 | 62.6 | 5 | 11 | 9.54 | - |
| Germany | 0 | 1 | 0 | 1 | 9 | 45 | 5.9 | 49.1 | 9 | 18 | 5.66 | 42.82 |
| Ghana | 0 | 0 | 0 | 1 | 12 | 85 | 84.7 | 41.6 | 11 | 42 | 41.39 | 20.90 |
| Guatemala | 0 | 0 | 1 | 1 | 15 | 39 | 65.6 | 33.4 | 11 | 26 | 47.26 | 24.91 |
| Honduras | 0 | 1 | 1 | 1 | 13 | 62 | 77.0 | 39.9 | 13 | 21 | 59.92 | 27.37 |
| Hungary | 0 | 1 | 0 | 1 | 6 | 52 | 40.4 | 96.4 | 6 | 16 | 17.69 | 65.11 |
| India | 0 | 0 | 1 | 0 | 11 | 89 | 53.4 | 0.0 | 13 | 33 | 74.59 | - |
| Indonesia | 0 | 0 | 1 | -1 | 12 | 168 | 136.7 | 138.2 | 12 | 105 | 79.96 | 38.44 |
| Ireland | 0 | 1 | 1 | 0 | 4 | 24 | 10.4 | 0.0 | 4 | 13 | 0.29 | - |
| Italy | 1 | 0 | 0 | 0 | 9 | 23 | 16.8 | 11.6 | 9 | 13 | 18.73 | 9.80 |
| Jamaica | 0 | 1 | 0 | 0 | 7 | 31 | 16.3 | 0.0 | 6 | 8 | 8.74 | - |
| Japan | 0 | 0 | 1 | 0 | 11 | 31 | 10.7 | 74.9 | 8 | 23 | 7.46 | 0.00 |
| Jordan | 1 | 1 | 0 | 1 | 14 | 81 | 104.1 | 1175.9 | 10 | 14 | 66.23 | 795.36 |
| Kazakhstan | 0 | 1 | 0 | 0 | 9 | 25 | 11.1 | 35.8 | 8 | 21 | 7.63 | 22.85 |
| Kenya | 1 | 0 | 0 | 1 | 12 | 60 | 51.7 | 0.0 | 12 | 44 | 46.14 | - |
| Lao PDR | 0 | 0 | 1 | 1 | 9 | 198 | 20.7 | 32.1 | 8 | 103 | 16.54 | - |
| Latvia | 0 | 1 | 0 | 0 | 5 | 16 | 10.1 | 45.0 | 5 | 16 | 3.02 | 22.05 |
| Lesotho | 0 | 0 | 1 | 0 | 9 | 92 | 64.1 | 19.3 | 8 | 73 | 37.40 | 14.34 |
| Lithuania | 0 | 1 | 1 | 0 | 8 | 26 | 4.0 | 68.0 | 7 | 26 | 3.04 | 46.18 |
| Macedonia, FYR | 0 | 0 | 1 | 1 | 13 | 48 | 12.1 | 78.3 | 9 | 15 | 6.63 | - |
| Madagascar | 1 | -1 | 1 | 1 | 15 | 67 | 59.0 | 27.8 | 5 | 7 | 22.69 | 333.42 |
| Malaysia | 0 | 0 | 0 | 1 | 9 | 30 | 25.9 | 0.0 | 9 | 24 | 18.12 | 0.01 |
| Mali | 0 | 0 | 0 | 1 | 13 | 42 | 204.3 | 526.0 | 11 | 26 | 132.14 | 434.65 |
| Mauritania | 0 | 0 | 0 | 1 | 11 | 82 | 141.4 | 858.7 | 11 | 65 | 56.21 | 503.11 |
| Mauritius | 0 | 0 | 0 | 1 | n.a. | n.a. | n.a. | n.a. | 6 | 7 | 5.34 | - |
| Mexico | 0 | 0 | 1 | 0 | 9 | 58 | 17.6 | 16.4 | 8 | 27 | 13.31 | 11.65 |
| Micronesia | 0 | 0 | 1 | 0 | 7 | 16 | 138.5 | 54.0 | 7 | 16 | 136.97 | - |
| Moldova | 1 | 0 | 0 | 1 | 11 | 42 | 24.5 | 31.8 | 9 | 23 | 11.46 | 14.55 |
| Mongolia | 1 | 0 | 0 | 0 | 9 | 31 | 11.9 | 197.0 | 8 | 20 | 4.29 | 96.33 |
| Morocco | 1 | 0 | 1 | 0 | 11 | 36 | 26.6 | 760.7 | 6 | 12 | 11.55 | 59.84 |
| Mozambique | 0 | 0 | 1 | 1 | 14 | 153 | 112.1 | 17.1 | 10 | 29 | 21.63 | 115.79 |
| Netherlands | 0 | 0 | 1 | 0 | 7 | 11 | 13.3 | 67.2 | 6 | 10 | 6.02 | 52.92 |
| Nicaragua | 1 | 0 | 0 | 0 | 10 | 48 | 161.4 | 0.0 | 6 | 39 | 119.11 | - |
| Niger | 0 | 0 | 1 | 1 | 13 | 35 | 450.9 | 759.9 | 11 | 23 | 174.83 | 735.56 |

| Economy | Reforms 2004 | Reforms 2005 | Reforms 2006 | Reforms 2007 | # of procedures 2003 | # of days 2003 | Cost as a % of GNI pc 2003 | Min. Paid- up Capital % of GNI pc 2003 | # of procedures 2007 | # of days 2007 | Cost as a % of GNI pc 2007 | Min. Paid- up Capital % of GNI pc 2007 |
|--------------|-----------------|-----------------|-----------------|-----------------|----------------------------|-------------------|----------------------------------|---|----------------------------|-------------------|----------------------------------|---|
| Nigeria | 0 | 1 | 0 | 1 | 10 | 44 | 89.6 | 74.6 | 9 | 34 | 56.58 | - |
| Norway | 0 | 1 | 0 | 0 | 4 | 23 | 3.5 | 29.8 | 6 | 10 | 2.34 | 23.44 |
| Paraguay | 0 | 0 | 0 | 1 | 17 | 74 | 209.9 | 0.0 | 7 | 35 | 77.60 | - |
| Peru | 0 | 0 | 1 | 0 | 10 | 98 | 39.4 | 0.0 | 10 | 72 | 29.86 | - |
| Philippines | 0 | 1 | 0 | 0 | 11 | 50 | 23.5 | 2.3 | 15 | 58 | 26.83 | 6.86 |
| Portugal | 0 | 0 | 1 | 1 | 11 | 78 | 12.0 | 40.4 | 7 | 7 | 3.43 | 34.66 |
| Romania | 1 | 1 | 0 | -1 | 6 | 29 | 10.9 | 0.0 | 6 | 14 | 4.67 | 1.47 |
| Russia | 1 | 1 | 1 | 0 | 12 | 42 | 8.5 | 6.8 | 8 | 29 | 3.70 | 3.19 |
| Rwanda | 0 | 0 | 1 | 0 | 9 | 18 | 235.3 | 0.0 | 9 | 16 | 171.54 | - |
| Saudi Arabia | 0 | 0 | 1 | 1 | 13 | 71 | 67.2 | 1549.5 | 7 | 15 | 32.30 | - |
| Serbia | 0 | 1 | 0 | 0 | 11 | 51 | 15.9 | 113.4 | 11 | 23 | 8.86 | 8.02 |
| Singapore | 0 | 1 | 0 | 0 | 7 | 8 | 1.0 | 0.0 | 5 | 5 | 0.79 | 0.0 |
| Slovakia | 1 | 1 | 0 | 0 | 10 | 103 | 9.4 | 50.3 | 9 | 25 | 4.21 | 34.09 |
| Spain | 1 | 1 | 0 | 0 | 10 | 114 | 16.8 | 17.9 | 10 | 47 | 15.05 | 13.67 |
| Sri Lanka | 1 | 0 | 0 | 1 | 8 | 58 | 12.3 | 0.0 | 5 | 39 | 8.53 | - |
| Switzerland | 0 | 0 | 1 | 0 | 6 | 20 | 8.6 | 16.5 | 6 | 20 | 2.12 | 13.94 |
| Syria | 0 | 0 | 1 | -1 | 12 | 43 | 34.5 | 5109.4 | 13 | 43 | 55.72 | 3,673.26 |
| Tajikistan | 0 | 0 | 0 | 1 | n.a. | n.a. | n.a. | n.a. | 13 | 49 | 39.62 | 310.99 |
| Tanzania | 0 | 0 | 1 | 1 | 13 | 31 | 200.3 | 7.5 | 12 | 29 | 47.06 | - |
| Timor-Leste | 0 | 0 | 0 | 1 | n.a. | n.a. | n.a. | n.a. | 9 | 82 | 11.90 | 595.24 |
| Tunisia | 0 | 1 | 0 | 0 | 10 | 11 | 11.9 | 343.8 | 10 | 11 | 8.35 | 25.30 |
| Turkey | 1 | 0 | 0 | 0 | 13 | 38 | 36.8 | 31.6 | 6 | 6 | 20.74 | 16.17 |
| Uganda | 0 | 0 | 1 | 0 | 17 | 36 | 146.5 | 0.0 | 18 | 28 | 92.03 | - |
| Ukraine | 1 | 1 | 1 | 0 | 15 | 40 | 25.6 | 121.5 | 10 | 27 | 7.77 | 203.10 |
| Uruguay | 0 | 0 | 1 | 0 | 11 | 45 | 51.3 | 212.4 | 11 | 44 | 45.98 | 180.59 |
| Uzbekistan | 0 | 0 | 0 | 1 | 8 | 29 | 17.2 | 23.0 | 7 | 15 | 14.24 | 25.27 |
| Vietnam | 1 | 1 | 0 | 0 | 12 | 63 | 61.9 | 0.0 | 11 | 50 | 20.00 | - |
| Yemen | 1 | 0 | 0 | 0 | 12 | 72 | 257.0 | 1723.4 | 12 | 63 | 126.04 | 2,003.23 |

Source: World Bank (2007). A “-1” on reforms means that the reform made it more difficult to start a business.