

Starting a business



In 1850 Isaac Merritt Singer invested \$40 and 11 days of work to come up with a revolutionary approach to sewing—a needle that moved up and down, interlacing thread as it punctured the cloth.¹ A year later he formed I.M. Singer & Company, a general partnership with New York lawyer Edward C. Clark.

Singer and Clark quickly became wealthy from the business. Singer also became wealthy in another way: he is thought to have had more than 20 children. Wishing to protect the business and its assets from protracted court battles between Singer's heirs, Clark persuaded Singer to dissolve the partnership and form a limited liability corporation, Singer Manufacturing Company, in 1863. The company continues to produce sewing machines today that are widely used around the world.

Rich or poor, men and women around the world seek to run and profit from their own businesses. But these entrepreneurs will not all have the same experience in establishing a new company. Regulations governing business start-up vary greatly across economies, in some cases making the cost of formal business registration nearly prohibitive.

Doing Business measures the procedures, time and cost for a small to medium-size limited liability company to start up and operate formally (figure 1). To make the data comparable across 183 economies, *Doing Business* uses a standardized business that is 100% domestically owned, has start-up capital equivalent to 10 times income per capita, engages in general industrial or commercial activities and employs between 10 and 50 people.

WHY DOES FORMAL BUSINESS REGISTRATION MATTER?

The legal registration of businesses is beneficial for various reasons. Legal entities can outlive their founders. Resources are pulled together as shareholders join forces to establish a company's capital. Formally registered companies have access to services and institutions from courts to banks as well as to new markets—benefits that are not available to unregistered firms. And where firms are formally registered, their employees can also benefit from protections provided by the law.

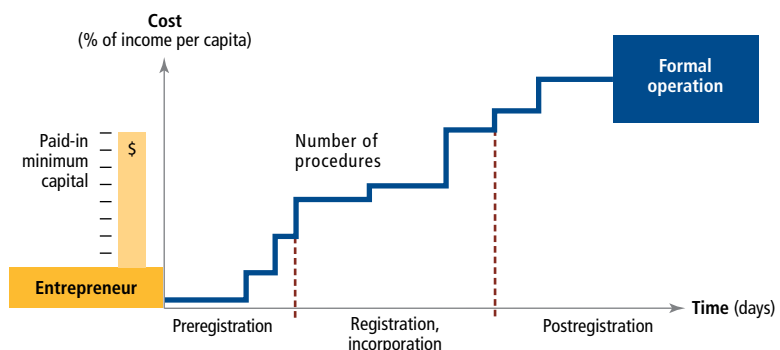
The legal form under which a company is registered also matters. Limited liability companies—the type of company that *Doing Business* focuses on—limit the financial liability of company owners to their investments, giving entrepreneurs more freedom to innovate because their personal assets are not put at risk. Sole proprietorships do not provide this kind of protection but can usually be set up with fewer procedures and at lower cost.²

Evidence from Rwanda suggests that the costs for incorporating a limited liability

company may matter when entrepreneurs choose the legal form for their new company. In 2009 Rwanda revamped its business start-up process, making it easier and cheaper to set up a limited liability company by establishing a one-stop shop and cutting the cost from about \$350 to only \$45. The impact of these reforms showed in the share of limited liability companies among new start-ups. In 2008 the number of newly registered limited liability companies was about the same as the number of newly registered sole proprietorships. By 2010 almost 4 of every 5 newly registered enterprises were limited liability companies.

Making the process of business incorporation easy also has broader benefits for the economy. A growing body of empirical research has explored the links between business entry regulation and social and economic outcomes. Using data collected from company registries in 100 economies over 8 years, analysis found that simple business start-up is critical for fostering formal entrepreneurship.³ Cumbersome regulations and administrative procedures for starting a business are found to be associated with a

FIGURE 1 What are the time, cost, paid-in minimum capital and number of procedures to get a local limited liability company up and running?



smaller number of legally registered firms, greater informality (a finding particularly relevant for many developing economies), a smaller tax base and more opportunities for corruption.⁴

A recent study finds that barriers to starting a business are significantly and negatively correlated with business density, calculated as the total number of businesses registered as a percentage of the economically active population (ages 15–64) that year. For example, the fewer the procedures required to start a business, the greater the number of registered firms. There is also a significant relationship between the cost of starting a business (as a percentage of gross national income, or GNI) and business density. For every 10 percentage point decrease in entry costs, density increased by about 1 percentage point.⁵

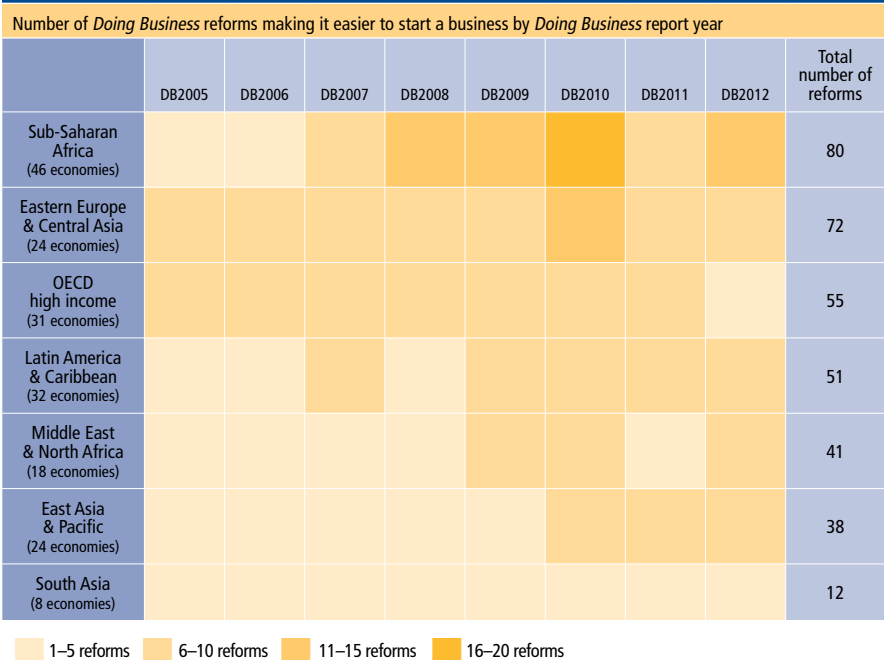
Regulatory reforms can have an impressive impact when they tackle the right bottleneck. After a reform simplifying business registration in different municipalities at different points in time across Mexico, a study found that the number of registered businesses increased by 5% and employment by 2.8%.⁶

WHO REFORMED BUSINESS REGISTRATION—AND WHAT HAS WORKED?

Doing Business has been tracking reforms in business registration since 2003. At that time European and other OECD high-income economies were the most active in making business entry easier. Much action was inspired by competition across the European Union. Denmark, Estonia, Hungary and Ireland are among the economies that reformed business entry between 2003 and 2005. Many continue to move forward, particularly in response to EU directives relating to electronic company registration or a unified EU company registry.

Since 2008 regulatory reforms making entry easier have picked up among low- and lower-middle-income economies, particularly in Sub-Saharan Africa and Eastern Europe and Central Asia (figure 2). Several have been supported by international and bilateral donors—including the introduction of one-stop shops in Belarus and Rwanda.

FIGURE 2 Sub-Saharan Africa, Eastern Europe & Central Asia still lead in start-up reforms



Note: An economy can be considered to have only 1 *Doing Business* reform per topic and year. The data sample for DB2005 (2004) includes 155 economies. Twenty-eight more were added in subsequent years.

Source: *Doing Business* database.

Sub-Saharan Africa has seen accelerating change. In 2004/05 only 2 economies in the region made it easier to start a business. In 2010/11, 15 did so. Today 2 low- or lower-middle-income economies rank among the top 10 on the ease of starting a business (table 1). How did they do it? By adopting practices developed and proven in other economies around the world.

Over the past 8 years *Doing Business* recorded 349 business registration reforms in 146 economies. Many opted for low-cost administrative reforms requiring little or no change in regulation. Others went further, introducing or amending legislation. Globally, the average time to start a business fell from 50 days to 31, and the average cost from 89% of income per capita to 36% (figure 3). In 2010/11, 53 economies made it easier to start a business, with streamlining registration formalities the most common feature of business registration reforms (table 2).

Many good practices have emerged over time. Some are common among the 10 economies making it easiest to start a business, such as offering one-stop shops. Most of the top 10 charge only a fixed registration fee—regardless of company size—that is

limited to the administrative cost of providing the registration services. Those making it easiest to start a business also use standard registration forms. And they require a nominal paid-in minimum capital or none at all. Other good practices include assigning unique company identification (ID) numbers and adopting technology to facilitate the delivery of a range of business start-up services. Another good practice is simply to

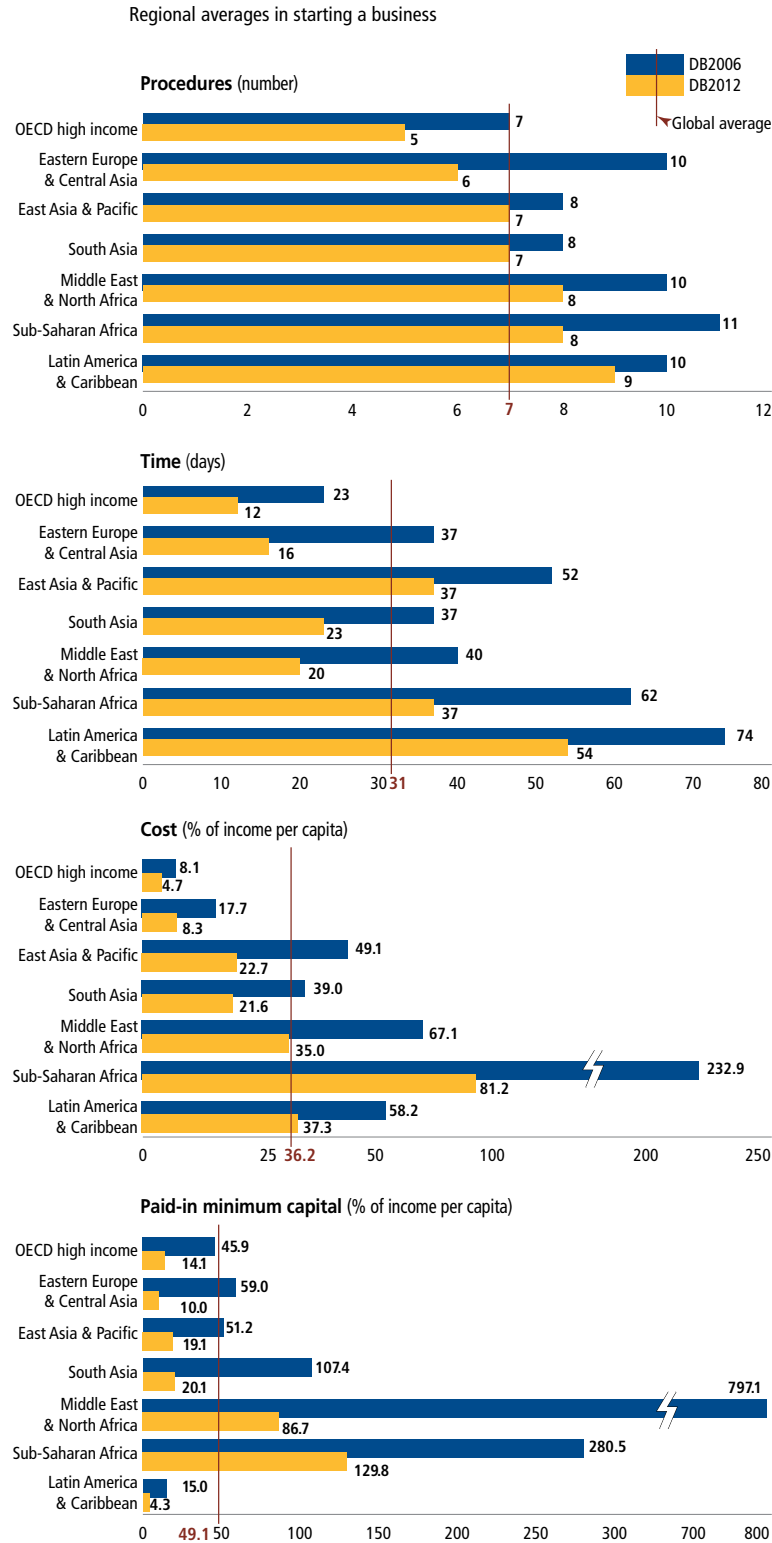
TABLE 1 Where is starting a business easy—and where not?

Easiest	RANK	Most difficult	RANK
New Zealand	1	Togo	174
Australia	2	Congo, Rep.	175
Canada	3	Iraq	176
Singapore	4	West Bank and Gaza	177
Hong Kong SAR, China	5	Equatorial Guinea	178
Macedonia, FYR	6	Djibouti	179
Georgia	7	Haiti	180
Rwanda	8	Guinea	181
Belarus	9	Eritrea	182
Puerto Rico (U.S.)	10	Chad	183

Note: Rankings are the average of the economy's rankings on the procedures, time, cost and paid-in minimum capital for starting a business. See the data notes for details.

Source: *Doing Business* database.

FIGURE 3 Worldwide, big cuts in the cost of starting a business



Note: The data sample for DB2006 (2005) includes 174 economies. The sample for DB2012 (2011) also includes The Bahamas, Bahrain, Brunei Darussalam, Cyprus, Kosovo, Liberia, Luxembourg, Montenegro and Qatar, for a total of 183 economies. DB2006 data are adjusted for any data revisions and changes in methodology and regional classifications of economies.

Source: Doing Business database.

review formalities to ensure that they still fulfill their intended purpose (box 1).

Using online services and standard registration and company documents goes a long way in facilitating swift and legally sound incorporation. Canada and New Zealand reduced the number of interactions that an entrepreneur starting a business must have with outside agencies to 1. They did so not by cutting out necessary regulation but by linking all agencies involved through a single online interface. Germany, Japan and Puerto Rico (territory of the United States) created new company types with simpler entry requirements to encourage entrepreneurship.

Reducing or eliminating the minimum capital requirement

Today 101 economies still require entrepreneurs to put up a set amount of capital before even starting registration formalities. The minimum capital requirement has its origins in the 18th century, initially intended to protect investors and creditors. In economies around the world, the deposited capital is often withdrawn immediately after registration—hardly of any value in insolvency. It is also not clear that minimum capital requirements have much value in other ways. Fixed amounts of capital do not take into account differences in commercial risks. Recovery rates in bankruptcy are no higher in economies with minimum capital requirements than in those without.⁷ And the requirements can have counterproductive effects on entrepreneurship.⁸

Not surprisingly, the economies that originally introduced the minimum capital requirement have long since removed it. And since 2005, 57 economies have reduced or eliminated their requirement, lowering the average paid-in minimum capital requirement globally from 184% of income per capita to 49%.

Madagascar is among them. After the country reduced its minimum capital requirement by more than 80% in 2006, the number of newly registered companies as a share of existing ones grew from 13% to 26%. In 2010/11 Madagascar abolished the minimum capital requirement altogether.

TABLE 2 Who made starting a business easier in 2010/11—and what did they do?		
Feature	Economies	Some highlights
Simplified registration formalities (seal, publication, notarization, inspection, other requirements)	Benin; Bhutan; Burkina Faso; Cameroon; Central African Republic; Chad; Chile; Colombia; Democratic Republic of Congo; Côte d'Ivoire; Dominican Republic; Georgia; Greece; Guyana; Indonesia; Panama; Peru; Puerto Rico (U.S.); Rwanda; Senegal; Solomon Islands; South Africa; Spain; Tajikistan; Timor-Leste; Tonga; Turkey; United Arab Emirates; Uzbekistan; Vanuatu	Chile allowed free online publication for new companies, ended the requirement for an inspection of premises by the tax authority before new companies can start operations and started granting an immediate temporary operating license to new companies. This cut procedures by 1, time by 15 days and cost by 23%.
Created or improved one-stop shop	Armenia; Guinea-Bissau; Liberia; Malaysia; Mali; Moldova; Montenegro; Oman; Saudi Arabia; Taiwan, China; Thailand; Uruguay	Liberia introduced a one-stop shop bringing together the agencies involved in registration under a single roof. This eliminated 1 procedure and reduced start-up time by 14 days. Uruguay launched a one-stop shop for registering with the commercial registry, tax authorities and social security. This cut procedures by 6, time by 58 days and cost by 33%.
Abolished or reduced minimum capital requirement	Jordan; Latvia; Madagascar; Portugal; Syrian Arab Republic	Portugal eliminated its paid-in minimum capital requirement. Jordan reduced its requirement from 1,000 Jordanian dinars to 1.
Cut or simplified postregistration procedures (tax registration, social security registration, licensing)	Bosnia and Herzegovina; Qatar; São Tomé and Príncipe; Ukraine	São Tomé and Príncipe eliminated the requirement for an operating license for general commercial companies, reducing start-up time by 134 days.
Introduced or improved online procedures	Hong Kong SAR, China; Republic of Korea; Solomon Islands	The Solomon Islands introduced a paperless registration system allowing users to register a company, update company details and make a company name search online. This reduced start-up time by 14 days. Korea introduced a new online system for business registration and postregistration, cutting 3 procedures and 7 days from the start-up process.

Source: *Doing Business* database.

Another example is Germany. When Germany pioneered a form of private limited liability company in 1892, it required minimum capital equivalent to €25,000. The amount was based on the price of a luxury home or the cost of employing 10 teachers for a year. In 2008 Germany introduced a new type of limited liability company, the *Unternehmergeellschaft*, or UG, with a minimum capital requirement of €1, similar to that in France. The aim was to foster the economic activity of small entrepreneurs. While many still opt for the traditional form, 12,000 new UGs were created between November 2008 and January 2010.⁹

Creating a single interface

Single interfaces for business start-up not only save time and money. They also can make procedural requirements more transparent and easier to access. While some one-stop shops are solely for business registration, others carry out many integrated functions, including postregistration formalities with tax authorities or municipalities. Some one-stop shops are virtual; others are physical, with one or more windows. Models vary. Some one-stop shops automatically forward information from the company registry to the license authority, as in Ethiopia. Others include separate desks with representatives from different agencies, as in Zambia. And still others provide a single

BOX 1 OHADA TAKES FIRST STEP TOWARD EASING BUSINESS ENTRY

Economies often have outdated formalities that fail to achieve their intended purpose—such as requiring a company seal or extracts of criminal records and medical certificates before registration. Even at the regional level economies are reviewing whether requirements are up to date. Among these are the 16 members of the Organization for the Harmonization of Business Law in Africa (OHADA), which share laws regulating company incorporation.¹ Under the Uniform Act on General Commercial Law that was adopted in April 1997, the founders of a company had to provide a copy of their criminal records before they could incorporate. Obtaining criminal records was no easy task. It required traveling to the city of birth of each founder and took several weeks in some economies.

This changed in December 2010, when the OHADA Council of Ministers adopted a new Uniform Act on General Commercial Law. Now founders have 75 days after incorporating their company to submit copies of their criminal records. They can start operations after simply providing a sworn declaration that they have committed no crime and are subject to no restrictions on commercial activity. Several countries, including Benin and Guinea-Bissau, have already started implementing the revised OHADA law.

1. The members of OHADA are Benin, Burkina Faso, Cameroon, the Central African Republic, Chad, the Comoros, the Republic of Congo, Côte d'Ivoire, Equatorial Guinea, Gabon, Guinea, Guinea-Bissau, Mali, Niger, Senegal and Togo.

electronic interface for entrepreneurs, as in Denmark, New Zealand and Norway.

Today 83 economies around the world have some kind of one-stop shop for business registration, including the 53 that established or improved one in the past 8 years (table 3). Not all reforms creating one-stop shops have been successful. Some resulted in “one more stop” shops that added to procedures rather than simplifying them. Others saw benefits delayed because of lack of publicity. Nonetheless, in the 83 economies that have one-stop shops offering at least one service besides business registration, start-up is

more than twice as fast as in those without such services.

A recent study in Portugal shows that introducing a one-stop shop for business registration led to a 17% increase in new firm registrations and 7 new jobs per 100,000 inhabitants.¹⁰ Research in Colombia shows that establishing a one-stop shop led to a 5.2% increase in new firm registrations.¹¹

Introducing a unique company ID

Single-access points function best when a centralized database is in place linking all agencies. To make interagency coordination

Practice	Economies ^a	Examples
Putting procedures online	110	Hong Kong SAR, China; Kuwait; FYR Macedonia; New Zealand; Peru; Puerto Rico (U.S.); Singapore
Having a one-stop shop	83	Bahrain; Burkina Faso; Georgia; Republic of Korea; Uruguay; Vietnam
Having no minimum capital requirement	82	Kenya; Madagascar; Portugal; Rwanda; United Arab Emirates; United Kingdom

a. Among 183 economies surveyed.
Source: *Doing Business* database.

even more effective, many economies assign unique company ID numbers. This allows all government services to easily identify new and existing companies and to cross-check information.

Malaysia introduced its first smart ID card for companies, Mykad, in 2001, and its latest one, an automated version called MyCoID, in 2010. India uses a unique company ID number for multiple tax registrations. Singapore introduced a single ID number for all company interactions with government in January 2009, replacing multiple ID

numbers. The aim was mainly to save time and reduce errors caused by companies' use of different ID numbers.

Using information and communication technology

Electronic registration is possible in more than 80% of high-income economies but only about 30% of low-income ones. Several economies with the fastest business start-up offer electronic registration—New Zealand, Australia, Singapore, Canada, Portugal, Denmark and Estonia (table 4). New

Zealand launched the first online registration system in 1996. Its use has been mandatory since 2008. Canada's registration process has been entirely paperless since 2006. And online services are increasingly being offered in developing economies.

What drives the automation of registries? The motivation to reduce the time and cost for business registration as well as to improve access for smaller firms operating at a distance from the registrar's offices (in many economies entrepreneurs still must travel to the capital city to register a business). Growing demands for company information within government for regulatory oversight and audit purposes—and the consequent need for government databases to share information. And revenue opportunities arising as businesses and financial institutions seek company information to inform their risk analysis of potential trading partners and borrowers.

Procedures (number)				Cost (% of income per capita)			
Fewest		Most		Least		Most	
Canada	1	Suriname	13	Denmark	0.0	Zimbabwe	148.9
New Zealand	1	Algeria	14	Slovenia	0.0	Benin	149.9
Australia	2	Argentina	14	South Africa	0.3	Djibouti	169.8
Georgia	2	China	14	Ireland	0.4	Central African Republic	175.5
Kyrgyz Republic	2	Bolivia	15	New Zealand	0.4	Comoros	176.2
Rwanda	2	Brunei Darussalam	15	Canada	0.4	Togo	177.2
Slovenia	2	Philippines	15	Sweden	0.6	Gambia, The	206.1
Armenia	3	Uganda	16	Puerto Rico (U.S.)	0.6	Chad	208.5
Belgium	3	Venezuela, RB	17	Australia	0.7	Haiti	314.2
Finland	3	Equatorial Guinea	21	Singapore	0.7	Congo, Dem. Rep.	551.4

Time (days)				Paid-in minimum capital		
Fastest		Slowest		Most	% of income per capita	US\$
New Zealand	1	Zimbabwe	90	São Tomé and Príncipe	336	4,032
Australia	2	Lao PDR	93	Chad	345	2,070
Georgia	2	Brunei Darussalam	101	Mali	348	2,090
Hong Kong SAR, China	3	Timor-Leste	103	Burkina Faso	373	2,053
Macedonia, FYR	3	Haiti	105	Guinea-Bissau	399	2,153
Rwanda	3	Brazil	119	Guinea	407	1,548
Singapore	3	Equatorial Guinea	137	Djibouti	434	6,002
Belgium	4	Venezuela, RB	141	Central African Republic	453	2,083
Hungary	4	Congo, Rep.	160	Togo	484	2,132
Canada	5	Suriname	694	Niger	584	2,103

Note: Eighty-two economies have no paid-in minimum capital requirement.

Source: *Doing Business* database.

Software applications for company registries range from simple databases and back-office workflow applications using generic software tools, to sophisticated web-based systems that enable customers and intermediaries to conduct business with the registrar entirely online. Many registrars begin their automation efforts by focusing on the back office, to build internal capacity before exposing their staff to the greater demands of delivering services online.

According to a 2010/11 survey of 34 company registries that implemented technology solutions, nearly all the systems allowed online name search and back-office processing of registration applications.¹² About half supported online company registration and filing of annual accounts. More than two-thirds allowed electronic data sharing with other government agencies as well as the dissemination of company information to the private sector. Within the government, information was typically shared with the tax authority (59% of systems) and to a lesser extent with the collateral registry (26%) and the social security agency (18%). Experience shows that establishing a virtual one-stop shop that collects all required information through a single online interface and shares it within government can reduce registration

time and eliminate redundant requirements for information.

Today 110 economies use information and communication technology for services ranging from name search to full online business registration. More than 40 offer electronic registration services.

Fifty-eight economies introduced information and communication technology in their business start-up processes in the past 8 years, saving time and effort for businesses and governments alike. A first step is always to make registration records electronic. This not only improves security and prevents potential losses of data; it also aids transparency and information sharing. And it makes it easier to introduce new online services later on.

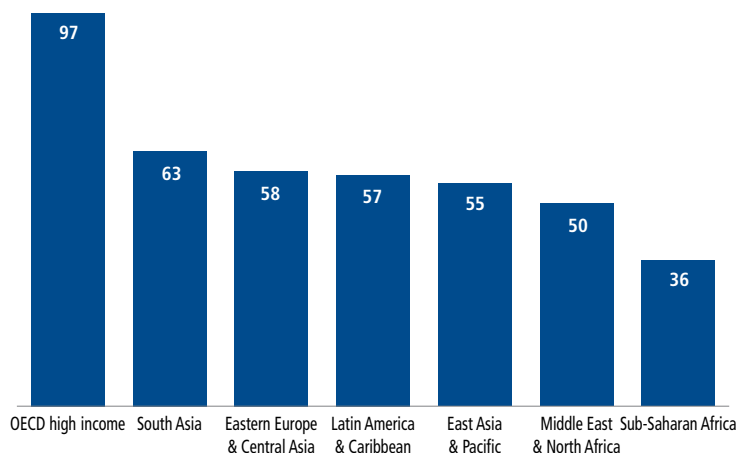
Mauritius has registered all new businesses through an integrated, computerized system since October 2006. The new system reduced total registration time from 46 days in 2006 to less than a week in 2008, as measured by *Doing Business*.

After Slovenia introduced its e-Vem automated system, administrative costs were reduced by 71.3%. The savings amount to €10.2 million a year, according to Slovenia's Ministry of Public Administration.

Making access to forms and fee schedules easy

Regardless of the level of automation, the easier it is for businesses to access fee schedules and documentation requirements for a regulatory process, the easier it is to comply with the regulations. Easy access not only saves businesses time; it also increases predictability in the application of regulations and fee schedules. This year *Doing Business* collected additional information in a sample of 174 economies on the different ways in which governments and agencies make such regulatory information accessible. It found that obtaining information on incorporation fees required scheduling an appointment with an official in the majority of economies in Sub-Saharan Africa and in the Middle East and North Africa. In contrast, in more than 90% of OECD high-income economies fee schedules for company incorporation could be obtained directly through the relevant agency's website

FIGURE 4 Information on start-up fees is easy to find in most OECD high-income economies
Share of economies where fee schedules are easily accessible (%)



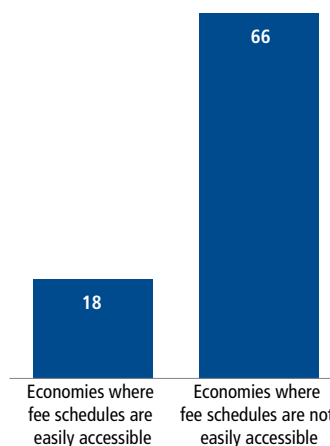
Note: Fee schedules are considered easily accessible if they can be obtained through the website of a government agency or through public notices, without a need for an appointment with an official. The data sample includes 174 economies.

Source: *Doing Business* database.

or through public notices such as notice boards and brochures (figure 4).

Easy access to fee schedules and low fees often go hand in hand. Globally, the cost to start a business averages a substantial 36% of income per capita. Entrepreneurs in lower-income economies face even higher costs—an average of 81% of income per capita in Sub-Saharan Africa, for example. Regardless of income levels, incorporation fees tend to be lower in economies where fee schedules are easily accessible (figure 5). The cost to start a business averages 18% of income per capita in economies where fee schedules are easily accessible, 66% in economies where they are not.

FIGURE 5 The cost to start a business is lower where information on the fees is easily accessible
Average cost to start a business (% of income per capita)



Note: Relationships are significant at the 5% level after controlling for income per capita. Fee schedules are considered easily accessible if they can be obtained through the website of a government agency or through public notices, without a need for an appointment with an official. The data sample includes 174 economies.

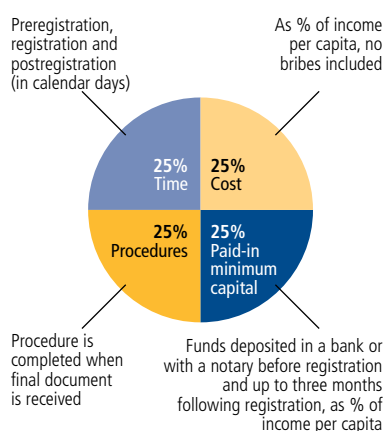
Source: *Doing Business* database.

DATA NOTES ON STARTING A BUSINESS

Doing Business records all procedures that are officially required for an entrepreneur to start up and formally operate an industrial or commercial business. These include obtaining all necessary licenses and permits and completing any required notifications, verifications or inscriptions for the company and employees with relevant authorities. The ranking on the ease of starting a business is the simple average of the percentile rankings on its component indicators (figure A.1).

FIGURE A.1 Starting a business: getting a local limited liability company up and running

Rankings are based on 4 indicators



After a study of laws, regulations and publicly available information on business entry, a detailed list of procedures is developed, along with the time and cost of complying with each procedure under normal circumstances and the paid-in minimum capital requirements. Subsequently, local incorporation lawyers, notaries and government officials complete and verify the data.

Information is also collected on the sequence in which procedures are to be completed and whether procedures may be carried out simultaneously. It is assumed that any required information is readily available and that all agencies involved in the start-up process function without corruption. If answers by local experts differ, inquiries continue until the data are reconciled.

To make the data comparable across economies, several assumptions about the business and the procedures are used.

Assumptions about the business

The business:

- Is a limited liability company (or its legal equivalent). If there is more than one type of limited liability company in the economy, the limited liability form most popular among domestic firms is chosen. Information on the most popular form is obtained from incorporation lawyers or the statistical office.
- Operates in the economy's largest business city.
- Is 100% domestically owned and has 5 owners, none of whom is a legal entity.
- Has start-up capital of 10 times income per capita at the end of 2010, paid in cash.
- Performs general industrial or commercial activities, such as the production or sale to the public of products or services. The business does not perform foreign trade activities and does not handle products subject to a special tax regime, for example, liquor or tobacco. It is not using heavily polluting production processes.
- Leases the commercial plant and offices and is not a proprietor of real estate.
- Does not qualify for investment incentives or any special benefits.
- Has at least 10 and up to 50 employees 1 month after the commencement of operations, all of them nationals.
- Has a turnover of at least 100 times income per capita.
- Has a company deed 10 pages long.

Procedures

A procedure is defined as any interaction of the company founders with external parties (for example, government agencies, lawyers, auditors or notaries). Interactions between company founders or company officers and employees are not counted as procedures. Procedures that must be completed in the same building but in different offices are counted as separate procedures. If founders have to visit the same office several times for different sequential procedures, each is counted separately. The founders are assumed to complete all procedures themselves, without middlemen, facilitators,

TABLE A.1 What do the starting a business indicators measure?

Procedures to legally start and operate a company (number)
Preregistration (for example, name verification or reservation, notarization)
Registration in the economy's largest business city
Postregistration (for example, social security registration, company seal)
Time required to complete each procedure (calendar days)
Does not include time spent gathering information
Each procedure starts on a separate day
Procedure completed once final document is received
No prior contact with officials
Cost required to complete each procedure (% of income per capita)
Official costs only, no bribes
No professional fees unless services required by law
Paid-in minimum capital (% of income per capita)
Funds deposited in a bank or with a notary before registration (or within 3 months), as a % of income per capita

accountants or lawyers, unless the use of such a third party is mandated by law. If the services of professionals are required, procedures conducted by such professionals on behalf of the company are counted separately. Each electronic procedure is counted separately. If 2 procedures can be completed through the same website but require separate filings, they are counted as 2 procedures.

Both pre- and postincorporation procedures that are officially required for an entrepreneur to formally operate a business are recorded (table A.1).

Procedures required for official correspondence or transactions with public agencies are also included. For example, if a company seal or stamp is required on official documents, such as tax declarations, obtaining the seal or stamp is counted. Similarly, if a company must open a bank account before registering for sales tax or value added tax, this transaction is included as a procedure. Shortcuts are counted only if they fulfill 4 criteria: they are legal, they are available to the general public, they are used by the majority of companies, and avoiding them causes substantial delays.

Only procedures required of all businesses are covered. Industry-specific procedures are excluded. For example, procedures to comply with environmental regulations are

included only when they apply to all businesses conducting general commercial or industrial activities. Procedures that the company undergoes to connect to electricity, water, gas and waste disposal services are not included.

Time

Time is recorded in calendar days. The measure captures the median duration that incorporation lawyers indicate is necessary in practice to complete a procedure with minimum follow-up with government agencies and no extra payments. It is assumed that the minimum time required for each procedure is 1 day. Although procedures may take place simultaneously, they cannot start on the same day (that is, simultaneous procedures start on consecutive days). A procedure is considered completed once the company has received the final document, such as the company registration certificate or tax number. If a procedure can be accelerated for an additional cost, the fastest procedure is chosen. It is assumed that the entrepreneur does not waste time and commits to completing each remaining procedure without delay. The time that the entrepreneur

spends on gathering information is ignored. It is assumed that the entrepreneur is aware of all entry requirements and their sequence from the beginning but has had no prior contact with any of the officials.

Cost

Cost is recorded as a percentage of the economy's income per capita. It includes all official fees and fees for legal or professional services if such services are required by law. Fees for purchasing and legalizing company books are included if these transactions are required by law. The company law, the commercial code and specific regulations and fee schedules are used as sources for calculating costs. In the absence of fee schedules, a government officer's estimate is taken as an official source. In the absence of a government officer's estimate, estimates of incorporation lawyers are used. If several incorporation lawyers provide different estimates, the median reported value is applied. In all cases the cost excludes bribes.

Paid-in minimum capital

The paid-in minimum capital requirement reflects the amount that the entrepreneur

needs to deposit in a bank or with a notary before registration and up to 3 months following incorporation and is recorded as a percentage of the economy's income per capita. The amount is typically specified in the commercial code or the company law. Many economies require minimum capital but allow businesses to pay only a part of it before registration, with the rest to be paid after the first year of operation. In Italy in June 2011 the minimum capital requirement for limited liability companies was €10,000, of which at least €2,500 was payable before registration. The paid-in minimum capital recorded for Italy is therefore €2,500, or 9.9% of income per capita. In Mexico the minimum capital requirement was 50,000 pesos, of which one-fifth needed to be paid before registration. The paid-in minimum capital recorded for Mexico is therefore 10,000 pesos, or 8.4% of income per capita.

The data details on starting a business can be found for each economy at <http://www.doingbusiness.org> by selecting the economy in the drop-down list. This methodology was developed in Djankov and others (2002) and is adopted here with minor changes.

NOTES

1. Brandon 1977.
2. According to a survey conducted by *Doing Business* in 2011 covering 183 economies, the process of establishing a sole proprietorship requires fewer procedures and is cheaper than establishing a limited liability company in over 90% of economies.
3. Klapper, Lewin and Quesada Delgado 2009.
4. Audretsch, Keilbach and Lehmann 2006.
5. Klapper, Amit and Guillen 2010.
6. Bruhn 2008.
7. Djankov and others 2008.
8. Van Stel, Storey and Thurik 2007.
9. Common Register Portal of the German Federal States, <https://www.handelsregister.de/>.
10. Branstetter and others 2010.
11. Cardenas and Rozo 2009.
12. Wille and others 2011. The survey, conducted by *Doing Business* and the World Bank Group's Investment Climate Advisory Services, received responses on experience in implementing new or upgraded technology solutions from 26 company registrars (or their advisers or information and communication technology vendors) in low- or middle-income economies and 8 in high-income economies.

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