CHAPTER 3

Removing obstacles to entrepreneurship

- Fifty-eight economies have eliminated the need for paid-in minimum capital to start a business, whereas 48 others have reduced the amount of capital required.
- Fifty-six new credit bureaus and 32 new credit registries have launched worldwide.
- Sixty-three economies have introduced online systems for filing and paying taxes.
- Forty-five economies have adopted reforms implementing or strengthening reorganization procedures to resolve insolvency.

Doing Business has recorded more than 3,800 regulatory reforms since the first study was published in 2003. Many of those reforms were implemented in four areas measured by *Doing Business*—starting a business, getting credit, paying taxes, and resolving insolvency.

Uruguay provides an example of the challenges faced by entrepreneurs and firms as well as of the improvements resulting from reforms. In 2003, entrepreneurs in Uruguay were required to deposit capital blocked at the bank equivalent to 212% of income per capita, making it expensive to start a business. Paying taxes was cumbersome for firms, with an average of 55 payments taking 304 hours to complete each year. With limited access to credit—and a low asset recovery rate in cases of bankruptcy—operating a business was challenging. Today, entrepreneurs in Montevideo decide what capital they need when they start a business. Thanks to the introduction of online tax services, the number of tax payments has been cut by one-third and the time to pay by half. With 100% of the adult population covered by a credit bureau, access to credit has been strengthened. And, if things go wrong for the company, entrepreneurs can attempt a reorganization. As a result, the recovery rate for firms in Uruguay improved significantly, rising from 12 to 45 cents on the dollar.

Starting a business: Eliminating paid-in minimum capital requirements

In *Doing Business 2004*, 124 economies required fixed paid-in minimum capital to start a business. By 2019, this number has fallen by half, with many governments eliminating the requirement after it failed to serve its intended purpose of protecting creditors.

Origins of paid-in minimum capital requirements: Controlling who can start a company

Paid-in minimum capital is the amount that entrepreneurs must legally deposit in a bank or with a notary when incorporating a business. In 1855, members of the United Kingdom's House of Lords were among the first to mention a minimum capital requirement. It was initially proposed that companies should have capital of no less than 20,000 pounds sterling in the context of the railway mania.[1]

Paid-in minimum capital requirements appeared elsewhere in Europe in the second half of the 19th century. Entrepreneurs were required to obtain government permission to start a company until the mid-1800s, and the required concessions involved considerable government scrutiny. Following the removal of concession prerequisites, European economies experienced a boom in business creation and, in some cases, speculation in the railway industry and banking sector. In response, governments enacted new regulation with stricter rules to start a business.

In Germany, for example, the Corporations Act of 1870 created the concept of joint-stock companies, which required entrepreneurs to comply

with more onerous rules when setting up a company, including much larger share values.[2] The act specified a minimum value per share of 50 German thalers for named shares and 100 thalers for bearer shares. A fixed nominal paid-in minimum requirement to start a company was first introduced in the 1892 law on limited liability companies.[3] Such firms were required to have an issued capital of at least 20,000 marks, of which at least 25% had to be paid in before the firm could operate. This amount was substantial—with income per capita of 470 marks in Germany in 1892, the paid-in minimum capital requirement was the equivalent of 42 times income per capita.[4]

Other European economies also introduced nominal paid-in minimum capital requirements. Sweden, for example, passed a Companies Act in 1895 and introduced a nominal minimum share capital. Portugal passed similar legislation in 1911, Austria in 1916, and most other Western European countries by the mid-1930s—including France, Italy, and Spain. Such legislation later spread beyond Europe to economies like Brazil, Chile, and Colombia.

Toward helping business

Once viewed as a way to provide security to creditors, paid-in minimum capital requirements proved to be inefficient.[5] In some economies, entrepreneurs would borrow the amount required for deposit at the time of business registration only to withdraw it immediately after. Worse, paid-in minimum capital requirements create barriers that prevent entrepreneurs from formalizing.[6] These requirements especially affect female-owned businesses, which tend to have less start-up capital.[7]

Doing Business has tracked paid-in minimum capital requirements in 190 economies since 2003. During that period, 106 economies enacted 139 regulatory reforms reducing or eliminating paid-in minimum capital requirements. Of these, 79 economies implemented one regulatory change, and 27 economies enacted more than one. Angola, for example, made three successive reductions of the minimum capital requirement in 2003, 2006, and 2011 before eliminating it in 2016.

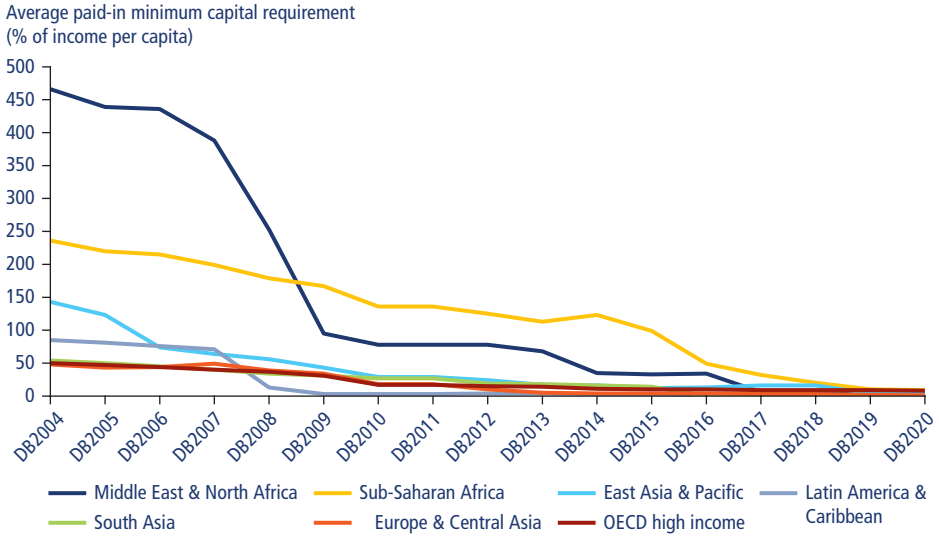
Fifty-eight economies eliminated paid-in minimum capital requirements. The most proactive regions were Europe and Central Asia (16 regulatory changes) and the Middle East and North Africa (12 regulatory changes). Some of the most recent examples are found among high-income economies of the Organisation for Economic Co-operation and Development (OECD). In May 2019, for example, Belgium amended its Commercial Code to abolish the paid-in minimum contribution requirement for limited liability companies. Following the reform, company founders were required only to prove sufficient equity to carry out operations in their financial plans.

Within the same period, *Doing Business* captured 81 regulatory changes reducing the amount of the paid-in minimum capital requirement. Sub-Saharan Africa was the region implementing the greatest number of reductions.

Many of these cuts were made by the 17 member states of the Organization for the Harmonization of Business Law in Africa (Organisation pour l'Harmonisation en Afrique du Droit des Affaires, or OHADA). Entering into force in May 2014, the revised Uniform Act regarding the Law of Commercial Companies and Interest Economics Associations simplified the rules for the creation of companies and allowed member states to set paid-in minimum requirements nationally, with a minimum of 5,000 CFA francs ($9) per share. The Central African Republic, for example, reduced its paid-in minimum capital requirement from 527% of income per capita in *Doing Business 2004* to 35% of income per capita in *Doing Business 2020*. Similarly, 20 OECD high-income economies introduced at least one reduction. In April 2019, Denmark lowered its paid-in minimum capital requirement from 50,000 kroner ($7,470) to 40,000 kroner ($5,975) for domestic limited liability companies. In the Europe and Central Asia region, paid-in minimum capital requirements were reduced 16 times during the last 17 years. For example, Croatia reduced its paid-in minimum capital requirement by half in April 2019, from 10,000 kunas ($1,505) to 5,000 kunas ($752).

The most significant changes, however, took place in the Middle East and North Africa (figure 3.1). The average paid-in minimum capital requirement in the Middle East and North Africa in *Doing Business 2004* was 466% of income per capita.[8] In *Doing Business 2020* it has fallen to just 5%. Jordan and Saudi Arabia made the biggest reductions over time—from over 1,000% of income per capita in *Doing Business 2004* to a zero paid-in minimum capital requirement.

FIGURE 3.1 Economies in the Middle East and North Africa cut paid-in minimum capital requirements the most over time



Source: Doing Business database.

Note: Myanmar and the Syrian Arab Republic were removed from regional averages as outliers.

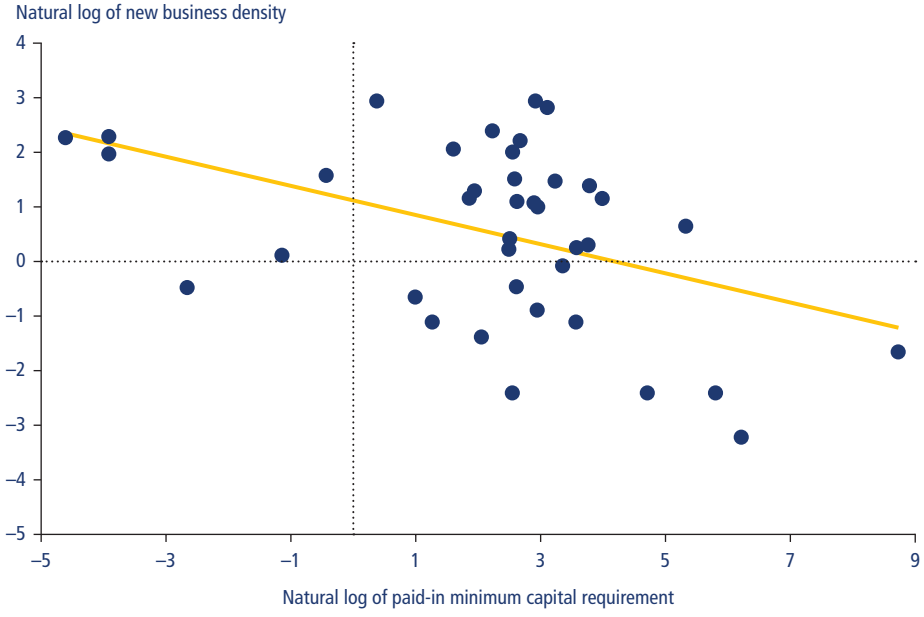
How do paid-in minimum capital requirements relate to business formalization and viability?

When deciding to incorporate a business, founders consider several factors: what legal form the company will take, what its main activities will be, where the premises will be located, how to advertise and promote the company, and so on. With a variety of start-up expenses—from incorporation costs to purchasing materials and equipment to paying salaries—the requirement to pay in a certain minimum capital necessitates additional cash that entrepreneurs must generate and be able to set aside. These costs may negatively affect an entrepreneur's decision to start a business. Data suggest that higher requirements for paid-in minimum capital are associated, on average, with lower new business entry (figure 3.2).

Furthermore, higher minimum capital that must be paid in upon incorporation is associated with a higher percentage of firms expected to pay bribes to get an operating license and with a higher share of firms identifying access to finance as a major constraint.[9]

Early advocates of paid-in minimum capital requirements believed that they served as a protection for investors. However, *Doing Business* data show

FIGURE 3.2 The higher the paid-in minimum capital requirement for business start-ups, the lower the business entry rate in the economy



Sources: Doing Business database; Entrepreneurship database (http://www.doingbusiness.org/data/exploretopics/entrepreneurship), World Bank.

Note: The analysis was conducted using cross-sectional data as well as panel data with economy and year fixed effects regression. The paid-in minimum capital requirement reflects the amount that an entrepreneur needs to deposit in a bank or with a third party, and it is recorded as a percentage of the economy's income per capita. New business density represents the number of newly registered corporations per 1,000 working-age people (age 15–64). The relationship is significant at the 5% level after controlling for income per capita. Annual data are available for 2006–16; the dataset comprises 93 economies where observations are available on both metrics. For visual simplification, the graph displays data only for 2014 with 39 observations.

that economies requiring businesses to pay in 100% or more of income per capita upon incorporation tend to have a recovery rate that is 17 cents lower, on average, than economies that require less capital.[10] Economies with lower paid-in minimum capital requirements also tend to have, on average, stronger regulation for the protection of minority investors.[11] In the end, investor protection is guaranteed with much more efficient ways than the requirement of a fixed paid-in minimum capital for all companies.

Getting credit–credit information: Developing credit reporting systems

Since the inception of *Doing Business*, 56 new credit bureaus and 32 new credit registries have launched worldwide. Credit information sharing has become a key element in the infrastructure of credit markets around the world as a prerequisite for sound risk management and financial stability. Credit bureaus and registries offer a way to minimize the problem of asymmetric information because they help lenders better predict borrowers' capacity to repay, therefore reducing the probability of default.[12]

The emergence of credit information sharing around the world

Before the establishment of credit reporting service providers, credit information sharing took place informally. During the 19th century, communities and merchants in the United Kingdom shared only negative information, maintaining lists of individuals with poor credit records in an effort to reduce their own risk and offer credit to more borrowers. The first formal arrangement for credit information sharing emerged in the United States in the 1840s with the creation of the first commercial credit reporting registries.[13]

In the 1950s and 1960s the first bureaus operated with limited information and focused on particular industries, such as banks and retailers. Credit reporting systems have evolved from distributing only negative information (for example, individuals with overdue payments) to including positive information that allows a debtor to create "reputational collateral," typically in the form of a credit score that signals a borrower's individual creditworthiness to a large pool of lenders. Since the 1980s, the credit reporting industry has expanded worldwide.

Expanding consumer credit has fueled the emergence of credit bureaus and registries in developing economies. In recent decades, major international bureaus have opened in low-income economies, bringing their expertise developed in high-income markets.

Improving credit reporting systems in developing economies

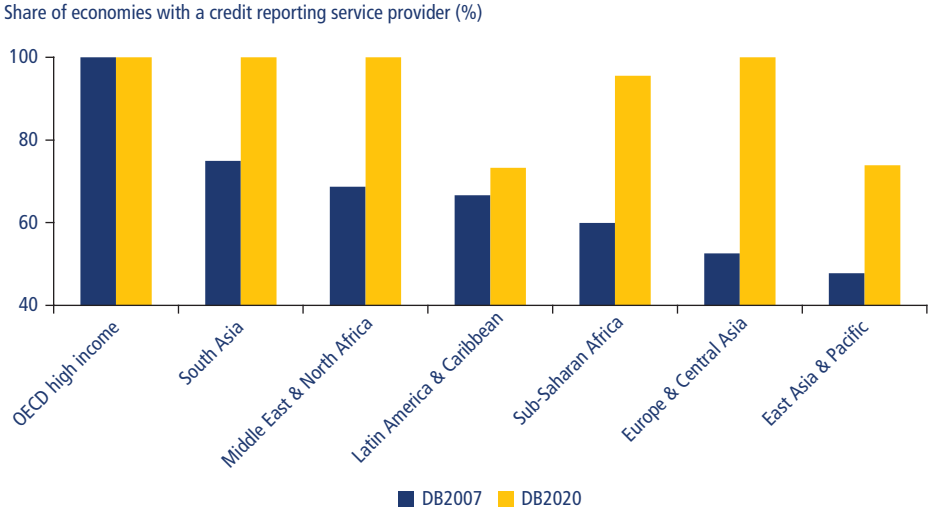
Credit bureaus and registries have become nearly universal. Whereas 67% of economies had a private credit bureau or a public credit registry in *Doing Business 2005*, in 2019 that figure is 88%.

In *Doing Business 2005*, all OECD high-income economies had an operating credit bureau or registry compared to 57% of economies in Sub-Saharan Africa.

Since then, most new credit bureaus and registries were established in developing regions. Before 2008, Sub-Saharan Africa had very few credit bureaus and lending markets were underdeveloped.[14] Governments began passing laws licensing credit bureaus and mandating credit information sharing by commercial banks. In *Doing Business 2020,* 92% of economies in Sub-Saharan Africa have an operational credit bureau or registry (figure 3.3). Seventeen of the 62 new credit bureaus and 15 of the 39 new credit registries launched since the first *Doing Business* study were established in Sub-Saharan Africa. The Europe and Central Asia region follows closely, with 16 credit bureaus and 7 credit registries founded since the inception of *Doing Business*. Eastern European economies had no private credit bureaus until the mid-1990s and, as they transitioned to market economies, required legislative changes to encourage commercial banks to share credit data.

Despite substantial reform, Sub-Saharan Africa remains the region with the least developed credit information systems. Until recently in the economies of the West African Economic and Monetary Union (Union Economique et Monétaire Ouest Africaine, or UEMOA) credit information was available only through the Central Bank of West African States (Banque Centrale des Etats de l'Afrique de l'Ouest, or BCEAO) credit registry, which operated with minimal features. The registry did not provide comprehensive credit reporting services to lenders; instead, its primary aim was to support the BCEAO's supervision functions. In 2015 the BCEAO selected Creditinfo VoLo as the accredited company to operate a credit bureau in its member economies; operations began in February 2016.

FIGURE 3.3 Europe and Central Asia and Sub-Saharan Africa saw the largest increases in credit reporting service providers since 2005/06



Source: Doing Business database.

Note: The sample includes 174 economies with data available back to *Doing Business 2007*.

In Nigeria, credit bureaus were formally recognized starting in 2008 when the Central Bank of Nigeria licensed three private credit bureaus. As in UEMOA economies, the low coverage rate presented an obstacle to credit bureau development in Nigeria. In 2010, the largest credit bureau, CRC Credit Bureau Limited, covered just 4.1% of the adult population and offered basic services including online distribution of positive and negative credit data on any loan amount to both individuals and firms. In 2011, two retailers started providing data to CRC, and by 2018 CRC had increased its coverage to 14% of the adult population and offered credit scoring services, thus achieving a score of 8 (the maximum score) on the depth of credit information index.

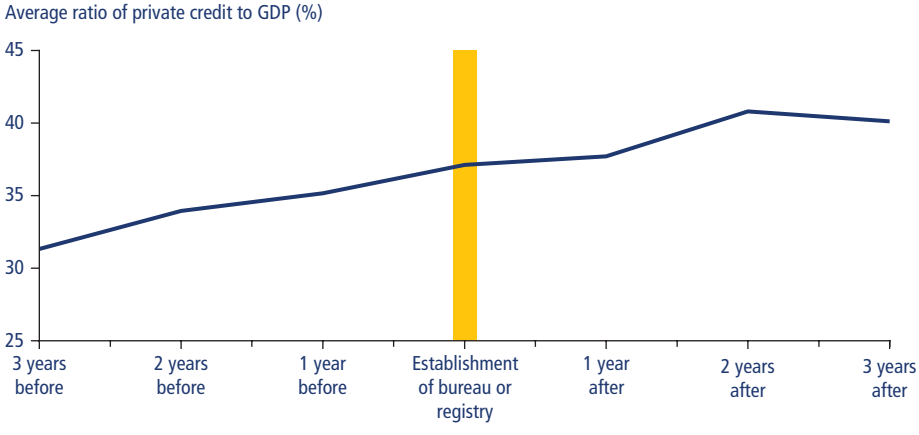
Impact of establishing new credit information systems

Doing Business data indicate that firms are 9% less likely to identify access to finance as a major constraint in economies where a bureau or registry exists. Economies with credit bureaus are also associated with higher credit-to-GDP ratios (figure 3.4).

Setting up new credit bureaus and registries has positive effects within economies. The launch of a credit bureau in Kenya, for example, has helped to reduce interest rates, collateral, and default rates for loans at commercial banks.[15] In India, lenders in the microfinance industry observed 50% lower default rates as well as higher operational efficiencies.[16]

Credit bureaus launched in 2019 are more likely to generate a higher score in the *Doing Business* depth of credit information index upon their establishment, with features including the distribution of credit scores,

FIGURE 3.4 The establishment of a credit reporting service provider is associated with more private credit in an economy



Source: Doing Business database.

Note: The analysis was conducted using ordinary least squares regression with year dummies. The figure represents an average private credit-to-GDP ratio for all economies with a credit bureau or public registry launching between *Doing Business 2006* and *Doing Business 2017*. The relationship is significant at the 1% level after controlling for income per capita and exogenous changes over time.

positive data (like on-time payment status), and data from alternative sources (such as utilities or retailers) that help to increase their coverage. Although credit bureaus opening in 2004/05 scored 2.5 points on average (out of 6 points) on the depth of credit information index, private bureaus that opened in 2017/18 scored 5 points on average.[17] In *Doing Business 2006*, it was more common for credit bureaus to launch with only a few features, such as distributing data on both individuals and firms and distributing both positive and negative data. By 2019 new bureaus and registries typically launch with the capacity to provide credit scoring services, data on utility credit, and online platforms.

Paying taxes: Transitioning from manual to electronic filing and payment

In *Doing Business 2006*, only 43 economies had an online system for filing and paying taxes. Fifteen years later, this number has more than doubled (to 106) as economies shift from manual filing and in-person payment of taxes to filing tax returns electronically and paying taxes online.

Origins of online filing of tax returns: Making compliance with tax obligations easier

Electronic filing (e-filing) and electronic payment (e-payment) are the processes of submitting tax returns and payments over the Internet. E-filing and e-payment have various benefits that have made the tax preparation process easier for businesses, including the ability to file a tax return from one's office at a convenient time and the ability to prepopulate tax returns with data already held by the tax administration.

The United States was the first economy to introduce e-filing in 1986, followed by Australia in 1987.[18] E-filing in the United States began as a small test program consisting of just five tax preparers from the cities of Cincinnati, Raleigh-Durham, and Phoenix.

Although tax preparers used special computers and software to simplify tax preparation in the 1980s, they still had to print all the forms and mail them to the Internal Revenue Service (IRS). The early e-filing process consisted of tax preparers using a machine called Mitron—a tape reader with a modem. The tax preparer would insert the tape with the tax data and then transfer it to the IRS. At the IRS, an agent would transfer the tape into a supercomputer called Zilog, which would read the data and organize it into files that the IRS could use for processing. The program's success prompted the IRS to expand it to additional cities. By 1987, 66 tax preparers from seven U.S. cities had used the system to file roughly 78,000 tax returns. To improve the system, that year the IRS added an electronic direct deposit option, allowing tax refunds to be wired to the taxpayer's bank account.

In 1988 the IRS moved to an IBM processing system, which eliminated the need for an IRS employee to manually connect a phone to a modem.

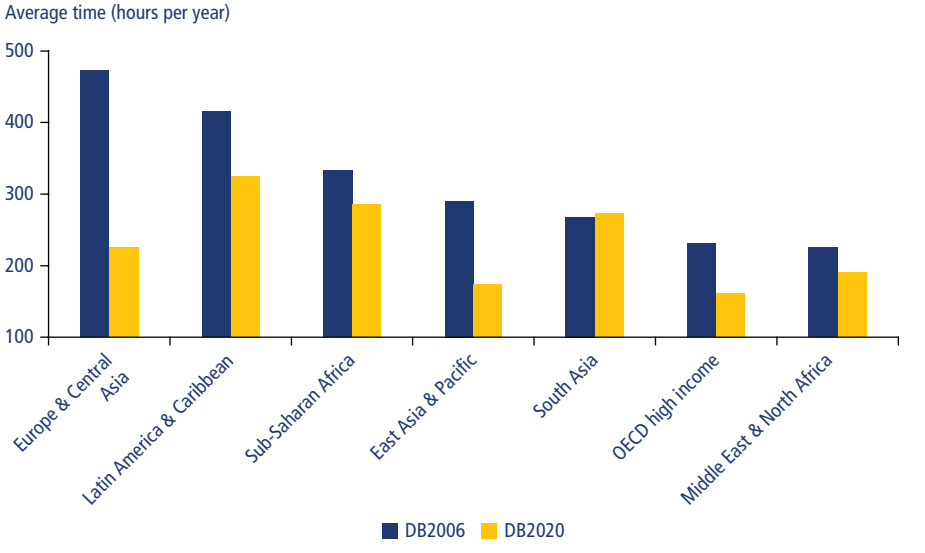
The IRS e-filing system became operational nationwide in 1990, and 4.2 million taxpayers filed their returns electronically that year. Today, in the United States e-filing and e-payment are the most common means used by taxpayers to file and pay their taxes.

From paper to electronic tax returns and tax compliance simplification

The introduction of electronic systems for filing and paying taxes has cut tax compliance times globally. The use of electronic tax filing and payment systems has risen sharply since 2004, with the most notable progress in the economies of Europe and Central Asia (figure 3.5). By 2018, the average compliance time in this region fell from 473 to 225 hours per year mainly because of the use of e-filing and e-payment in addition to simplifying and streamlining the tax systems of the individual economies. The most common feature of reform globally in the area of paying taxes was the implementation or enhancement of electronic filing and payment systems.

Since *Doing Business 2006*, 63 economies have introduced online platforms for filing tax returns including online payment modules. Europe and Central Asia and East Asia and the Pacific were the two most proactive regions introducing such systems. Among high-income economies, 97% use electronic filing or payments, whereas Sub-Saharan Africa has the lowest share of economies (17%) using such features. Factors inhibiting

FIGURE 3.5 The Europe and Central Asia region has made the most notable progress in reducing tax compliance time



Source: Doing Business database.

Note: In South Asia, time in DB2020 is higher than time in DB2006 because of Maldives, which in *Doing Business 2013* introduced three major taxes: business profit taxes, value added tax, and pension contributions. Therefore, compliance time in Maldives went up from 0 to 391 hours.

the adoption of technology by tax administrations and taxpayers include low literacy levels, unreliable information technology (IT) infrastructure, and poor availability of suitable accounting and tax preparation software. *Doing Business* data show, however, that the use of online systems for tax filing and payment resulted in efficiency gains in several economies in Sub-Saharan Africa in 2018 including Côte d'Ivoire, Kenya, Mauritius, and Togo.

As of *Doing Business 2013*, the Czech Republic had implemented several reforms that reduced the time to file and pay taxes to just 230 hours (from 866 hours in *Doing Business 2006*). The reform process began in early 2000 with changes to regional and central tax administration organizational structures, the introduction of a mandatory tax certification test for employees, the adoption of strict tax audit guidelines, and the development of the tax administration information system. At the same time, the tax authority built a centralized tax administration register and began upgrading its systems to prepare for the transition to online tax return filing. Electronic submission of tax documentation began in 2004. Finally, in 2011, the Czech Republic expanded the list of taxpayer services provided online and established a Specialized Tax Office that launched a taxpayer–tax agency feedback mechanism to improve client services. All of these efforts resulted in a substantial reduction in the time to file and pay taxes.

China has implemented business tax reforms consistently over the years, with notable results. In *Doing Business 2006*, for example, businesses in Shanghai spent 832 hours per year on average to prepare, file, and pay taxes, and they had to make 37 payments. By *Doing Business 2020*, these metrics have been reduced to just 138 hours per year and 7 payments.

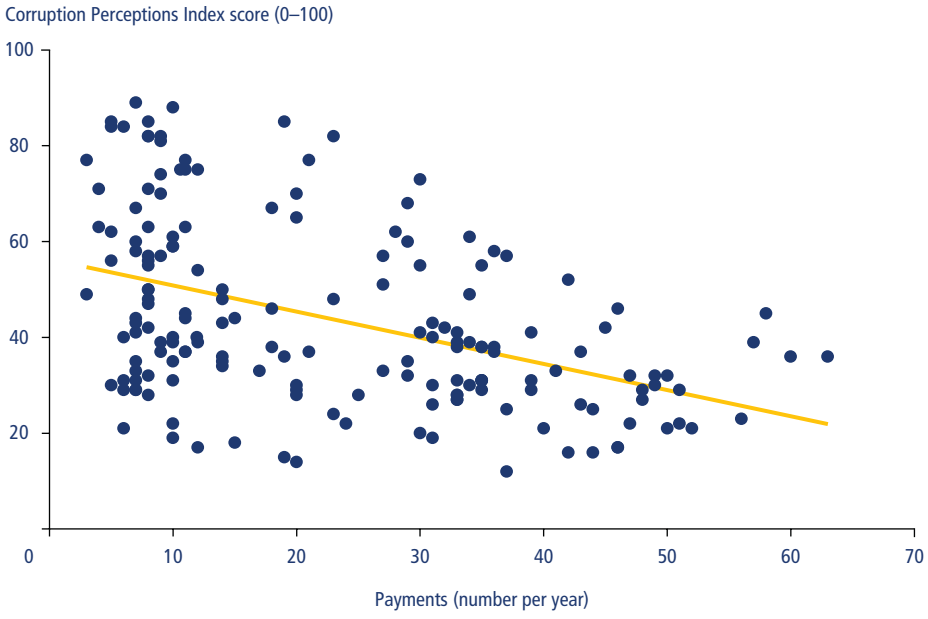
In 2014 China integrated taxpayer services functions through a mobile tax application and launched official accounts on the two main Chinese social media platforms (WeChat and Weibo). In 2015, the Internet+Taxation Initiative unlocked the potential of big data for taxpayer services, such as data sharing among government bodies, online training, and e-invoices. The State Taxation Administration launched the Golden Tax III system in 2017, which facilitated e-filing of different stamp duty taxes. Additionally, China implemented a series of measures in the past two years, which simplified corporate income tax, labor taxes, value added tax declarations, and e-delivery of invoices.

How do e-filing and e-payment of taxes relate to less corruption?

Studies show that high tax compliance costs are associated with larger informal sectors, more corruption,[19] and less investment.[20] The modernization of IT infrastructure increases efficiency, reduces physical interactions between tax officials and taxpayers, and eliminates the physical exchange of cash, which can reduce rent-seeking. Moreover, data show economies with fewer tax payments[21] have a lower perceived level of public sector corruption (figure 3.6).

Businesses care about what they get in return for their taxes. Good quality physical infrastructure is critical for the sound functioning of an economy—it

FIGURE 3.6 Fewer tax payments are associated with a lower perception of corruption



Sources: Doing Business database; Transparency International data (https://www.transparency.org/cpi2017).

Note: The figure compares the Corruption Perceptions Index with the absolute number of tax payments that a medium-size company pays in a year (for each year between 2012 and 2018). The analysis was conducted using cross-sectional data as well as panel data with economy and year fixed effects regression. The relationship is significant at the 5% level after controlling for income per capita. A higher score on the Corruption Perceptions Index indicates a lower level of perceived corruption. Data for the Corruption Perceptions Index are for 2017. The sample comprises 169 economies. In the paying taxes methodology, the number of tax payments is recorded as one when a tax is filed and paid online regardless of the statutory number of filings and payments.

plays a central role in determining the location of economic activity. The efficiency with which tax revenue is converted into public goods and services has an impact on the tax morale of businesses and individuals. Data show that, in economies where fewer tax payments result from the use of e-filing and e-payment of taxes, the public's perception of the quality of public services—and their independence from political pressure—is higher.[22] Electronic services facilitate a transparent platform for collaboration among government agencies as well as interactions with taxpayers, reducing the vulnerability of public services to political interference.

Technology is changing how taxes are administered. More and more companies are using tax software, and more and more tax authorities are creating easier-to-use online portals to simplify tax compliance. Electronic systems for filing and paying taxes benefit taxpayers by reducing preparation time and errors by enabling automated verification of transactions. These systems also benefit the tax authorities by making tax systems more robust and reducing operational costs—such as those associated with processing and handling paper tax returns—allowing human and financial resources to be reallocated to efforts that improve services to taxpayers. In the past

15 years, tax administrations worldwide have sought to introduce and continuously enhance their online systems to improve their efficiency and facilitate more comprehensive and faster risk assessment and compliance checks on returns.[23] This efficiency in turn has benefitted taxpayers by easing the compliance burden.

Resolving insolvency: Introducing or strengthening reorganization procedures

Since *Doing Business 2006*, more than 40 economies have adopted reforms implementing or strengthening reorganization procedures to resolve insolvency. Having reorganization procedures reduces failure rates of small and medium-size enterprises and prevents the liquidation of insolvent but viable businesses.

The emergence of reorganization procedures

Reorganization is a process by which the financial well-being and viability of a debtor's business may be restored through a reorganization plan, so that the business continues to operate as a going concern. In accordance with good international practices, a reorganization procedure enshrines clear rules on its commencement, including an insolvency test; provides a mechanism to manage the debtor's property; sets minimum requirements for the content and adoption of the reorganization plan; contains an element of debt restructuring; and provides a stay period for enforcement actions. Before the introduction of reorganization, corporate overindebtedness was solved primarily by applying mechanisms like in-court liquidation and schemes of arrangement with creditors.

The concept of liquidation has been present in both civil and common law economies since as early as the 16th century. Liquidation is the process of assembling and selling the assets of an insolvent debtor, emptying it and distributing the proceeds to its creditors. Liquidation rests under the assumption that exit from the market encourages entrepreneurs to reestablish themselves with a better reallocation of resources, generating firm creation and economic growth.[24] The risk, however, arises when a viable business is forced to liquidate but could otherwise become profitable with the appropriate restructuring of its obligations, management, or business industry or by undertaking other structural changes. Research also shows that after completion of liquidation, creditors often recoup only a portion of their investment.[25]

Apart from liquidation, many common law economies also still rely on other instruments like the "scheme of arrangement" for debt restructuring. Initially introduced into English law in 1870[26]—and later to the economies of the Commonwealth[27]—the scheme of arrangement is a court-approved agreement between a company and its shareholders or creditors aimed at enabling both solvent and insolvent companies to rearrange their assets and liabilities.

The scheme of arrangement is not a tool designed specifically to restore the financial viability of an insolvent business.[28] Therefore, the need for better mechanisms emerged. Modern insolvency regimes shifted the focus toward offering restructuring tools to businesses that are economically viable but face temporary financial distress, while also allowing a speedy liquidation of nonviable businesses. Inspired by commercial debt restructuring performed by merchants with their trade networks through negotiation, and supplemented with the stay of enforcement proceedings, the idea of a reorganization procedure emerged as an efficient alternative. Originally introduced into law in the United States in 1978, the first wave of reforms establishing reorganization procedures followed the financial crisis at the end of the 20th century.[29] It was at this time that legislators realized the necessity of separating unviable businesses from viable ones, and to preserve the latter. Most reforms that introduced reorganization procedures were, however, implemented during and after the 2008 financial crisis.

Introducing effective reorganization procedures is a recent phenomenon, and, in many economies, businesses facing financial distress still do not have an option to reorganize. Around the world, one-third of economies have no reorganization procedures.

Reforms introducing reorganization procedures

The case of India provides an example of successful implementation of reorganization procedures. India established an insolvency regime in 2016.[30] Before the implementation of the reform, it was very burdensome for secured creditors to seize companies in default of their loans. The most common way for secured creditors to recover the debt was through very lengthy and burdensome foreclosure proceedings that lasted almost five years, making efficient recovery almost impossible. The new law introduced the option of reorganization (corporate resolution insolvency process) for commercial entities as an alternative to liquidation or other mechanisms of debt enforcement, reshaping the way insolvent firms could restore their financial well-being or close down. With the reorganization procedure available, companies have effective tools to restore financial viability, and creditors have access to better tools to successfully negotiate and have greater chances to revert the money loaned at the end of insolvency proceedings.

Since its implementation, more than 2,000 companies have used the new law. Of these, about 470 have commenced liquidation and more than 120 have approved reorganization plans, with the remaining cases still pending. In the past, foreclosure was the most common procedure reported by legal practitioners in both Delhi and Mumbai under the case study assumptions measured by the resolving insolvency indicator set, with an approximate duration of 4.3 years. Despite some challenges in the implementation of the reform—particularly regarding court operations and the application of the law by multiple stakeholders—the number of

reorganizations in India has been gradually increasing. As a result, reorganization has become the most likely procedure for viable companies as measured by *Doing Business*, increasing the overall recovery rate from 27 to 72 cents on the dollar. This increase in the recovery rate is based on the standardized methodology and underlying assumptions of the resolving insolvency indicator set, which measures domestic limited liability companies only.

Impact of reforms related to reorganization proceedings

The highest recovery rates as measured by *Doing Business* are recorded in economies where reorganization is the most common proceeding.[31] The accessibility to reorganization procedures in an economy is associated with higher lending to the private sector. Investment growth rises as a percentage of GDP as economies make reorganization procedures available, most likely because economies with faster GDP growth rates may also be able to enhance investment and vice versa. In economies without reorganization procedures, domestic investment as a percentage of GDP declined by 1% on average between 2004 and 2019; it rose by roughly 3% on average in economies where reorganization procedures are available.[32]

In those economies with reorganization procedures, domestic investment has been rising over the same period in every region except Latin America and the Caribbean. Low-income and lower-middle-income economies in South Asia and the Middle East and North Africa have been driving this trend with domestic investment growth exceeding 10%. In contrast, for economies with no reorganization procedures, domestic investment has been falling or has remained flat in every region except East Asia and the Pacific.

Notes

1. For more information, see the Limited Liability Bill of August 7, 1855, available at https://api.parliament.uk/historic-hansard/lords/1855/aug/07/limited-liability-bill#S3V0139P0_18550807_HOL_4. The Final Act, approved on August 14, 1855, omitted any requirement for minimum capital. See https://www.legislation.gov.uk/ukpga/1855/133/pdfs/ukpga_18550133_en.pdf.
2. Germany's Corporations Act of 1870 is available at http://dlib-pr.mpier.mpg.de/m/kleioc/0010/exec/books/%22158456%22.
3. Germany's 1892 law on limited liability companies (*Das Reichsgesetz betreffend die Gesellschaften mit Beschränkter Haftung, GmBH*) is available at https://www.rechtsportal.de/Rechtsprechung/Gesetze/Gesetze/Wirtschaftsrecht/Gesetz-betreffend-die-Gesellschaften-mit-beschraenkter-Haftung/GmbHG-Gesetz-betreffend-die-Gesellschaften-mit-beschraenkter-Haftung2.
4. Hoffmann, Grumbach, and Hesse 1965.
5. Dreher and Gassebner 2013.
6. Djankov and others 2002.
7. Fairlie and Robb 2009.
8. The sample excludes the Syrian Arab Republic.

9. In both cases, natural log transformation was applied to the minimum paid-in capital requirement. The analysis was conducted using panel data with economy and year fixed effects regression. For the percentage of firms identifying corruption as a major constraint, the relationship is significant at the 10% level after controlling for income per capita. For the percentage of firms identifying access to finance as a major constraint, the relationship is significant at the 5% level after controlling for income per capita.
10. The relationship is significant at the 1% level after controlling for income per capita.
11. The relationship is significant at the 1% level after controlling for income per capita.
12. Ibrahim and Alagidede 2017.
13. Lauer 2017.
14. Tchamyou and Asongu 2017.
15. Gaitho 2013.
16. Based on research carried out by High Mark Credit Information Services Private Limited in 2013–14 in partnership with the World Bank Group.
17. This calculation is based on the original methodology of the depth of credit information index on a six-point scale.
18. Che Azmi and Kamarulzaman 2009.
19. Awasthi and Bayraktar 2015.
20. Braunerhjelm and Eklund 2014; Djankov and others 2010.
21. In the paying taxes methodology, the number of tax payments is recorded as one when a tax is filed and paid online regardless of the statutory number of filings.
22. See previous note.
23. EY global survey, VAT/GST electronic filing and data extraction, 2014, available at: https://www.ey.com/Publication/vwLUAssets/EY_-_VAT-GST_electronic_filing_and_data_extraction/$FILE/EY-vat-gst-electronic-filing-and-data-extraction.pdf.
24. Asturias and others 2017.
25. Madaus 2017.
26. The scheme of arrangement was initially introduced to English law in the Joint Stock Companies Arrangement Act of 1870.
27. Payne 2014.
28. Payne 2013.
29. Reorganization procedures were first introduced in the United States Bankruptcy Code of 1978.
30. The government of India adopted the Insolvency and Bankruptcy Code 2016, which was published in the official gazette on May 28, 2016.
31. Recovery rates are calculated by *Doing Business* as cents on the dollar recovered by secured creditors in resolving insolvency.
32. The sample includes the 155 economies covered by the World Bank's World Development Indicators database.