

An Open Door for Firms

The Impact of Business Entry Reforms

World Bank Group client governments as well as donors often ask about the effects of business entry reforms and the persistence of those effects. Four clear findings emerge from existing research. First, more firms enter the market when registration procedures and costs are cut. Second, a large percentage of new firms survive and grow. Third, new firms increase competition, forcing incumbents to become more efficient or to exit the market and boosting overall productivity and investment. Finally, entry reforms have greater impacts when coupled with other investment climate reforms.

Entrepreneurs first come into contact with regulation when incorporating a firm. Experiences vary greatly. An entrepreneur in New Zealand can incorporate a limited liability company in 1 day at a cost of US\$112 (0.4 percent of the country's gross national income [GNI] per capita). One in Equatorial Guinea would have to spend 136 days to open the same business and pay about US\$15,000 (100 percent of GNI per capita). That entrepreneur would also have to deposit US\$1,858 (12.4 percent of GNI per capita) in a bank as a minimum capital requirement before opening for business (World Bank 2009). In more than 40 economies, starting a business costs more than 50 percent of GNI per capita. In more than 20, it takes longer than two months (table 1).

This Note summarizes the findings of three types of studies that quantify the effects of reducing the time and cost of business entry on

economic activity: microeconomic analyses establishing direct links between entry reforms and changes in economic activity, cross-country econometric studies examining the average impact of entry barriers on economic activity, and firm-level studies relating firm demographics to economic activity.

More firms enter the market

Research shows that entry reforms lead more firms to enter the market (table 2). Country-specific studies in Mexico (Bruhn 2008) and Colombia (Cárdenas and Rozo 2007) assessed the impact of introducing one-stop shops on firm creation by comparing firm entry before and after the implementation of a one-stop shop. In India, Aghion and others (2008) tracked the effects on firm registration of dismantling the "license raj," a system of central controls on entry and production, by comparing industries where

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Table Economies with high costs or long delays to start a business

1	Cost of more than 50% of GNI per capita to start a business	Zimbabwe, Democratic Republic of Congo, Guinea-Bissau, Central African Republic, Haiti, The Gambia, Togo, Djibouti, Comoros, Chad, Benin, Burundi, Angola, Guinea, Cambodia, Federated States of Micronesia, Côte d'Ivoire, Cameroon, Sierra Leone, Niger, Suriname, Nicaragua, Malawi, Equatorial Guinea, Bolivia, Mali, Republic of Congo, Uganda, Republic of Yemen, São Tomé and Príncipe, Lebanon, Nigeria, Eritrea, Iraq, India, Senegal, Paraguay, West Bank and Gaza, Nepal, Liberia, Solomon Islands, Belize, Burkina Faso
	More than 2 months to register a business	Suriname, Guinea-Bissau, Haiti, Democratic Republic of Congo, São Tomé and Príncipe, República Bolivariana de Venezuela, Equatorial Guinea, Brazil, Brunei Darussalam, Lao PDR, Zimbabwe, Cambodia, Eritrea, Timor-Leste, Iraq, Chad, Togo, Angola, Namibia, Uruguay, Ecuador, Botswana, Swaziland
	More than 10 procedures to register a business	Equatorial Guinea, Chad, Brunei Darussalam, Uganda, Brazil, Guinea-Bissau, República Bolivariana de Venezuela, Argentina, Bolivia, Greece, Philippines, Algeria, China, Democratic Republic of Congo, Ecuador, Eritrea, Guinea, Haiti, Honduras, India, Kuwait, Suriname, Swaziland, Bosnia and Herzegovina, Cameroon, Costa Rica, Kenya, Tajikistan, Tanzania, Montenegro, Burundi, Comoros, Djibouti, Guatemala, Iraq, Uruguay, Vietnam, West Bank and Gaza

Source: World Bank 2009.

Note: In each category economies are listed in descending order by cost, time, or number of procedures.

Table Impact of entry reforms on the creation of new firms

2	Country	Study	Reform	Increase in new firms created (%)
	Colombia	Cárdenas and Rozo 2007	Introduction of one-stop shop (CAE program) ^a	5.2
	India	Aghion and others 2008	Elimination of license raj (reduction of procedures to start a business)	6
	Mexico	Bruhn 2008	Introduction of one-stop shop (SARE program) ^b	5
	Cross-country	Fisman and Sarria-Allende 2004	Reduction of registration cost from 75th to 25th percentile in Doing Business rankings	11 ^c
	Cross-country	Klapper, Laeven, and Rajan 2006	Reduction of registration cost from 75th to 25th percentile in Doing Business rankings	10 ^c

a. The CAE (Centros de Atención Empresarial) program introduced one-stop shops in Colombia.

b. The SARE (Sistema de Apertura Rápida de Empresas) program introduced one-stop shops in Mexico.

c. The increase in the number of firms refers to high-turnover industries relative to low-turnover industries.

the license was phased out with those where it was maintained (“high risk” industries).

Taken together, these studies show that a substantial reduction in the number of procedures required to start a business—often through the establishment of well-functioning one-stop shops—is associated with an increase in the creation of new firms estimated at 5–6 percent.¹

These results are confirmed by cross-country studies by Fisman and Sarria-Allende (2004) and Klapper, Laeven, and Rajan (2006), where the authors used a difference-in-difference methodology to compare the impact of entry reforms on industries with “naturally” high barriers to entry (for example, pharmaceuticals) with the impact on industries with low barriers (for example, retail). These studies find that a reduction of registration costs from the 75th to the 25th percentile in the World Bank’s Doing Business rankings

is associated with a 10–11 percent increase in the number of new firms in industries with low barriers relative to those with high barriers.²

New firms survive and grow

Firm demographics studies use census data to study patterns in firm entry, growth, and exit and the implications of those patterns for employment and productivity.³ These studies do not analyze the survival and growth patterns of firms following a reduction in the time and cost to register. Nevertheless, they shed important light on the fate of new entrants, including those created after a reform reducing the time and cost to register.

A study by Bartelsman, Haltiwanger, and Scarpetta (2004) finds that 61–87 percent of firms that enter the market in a given year still operate after two years and that 27–66 percent of the initial firms are still operating at age seven

(figure 1). Klapper and Richmond (2009) find similar two-year survival rates in Côte d'Ivoire.

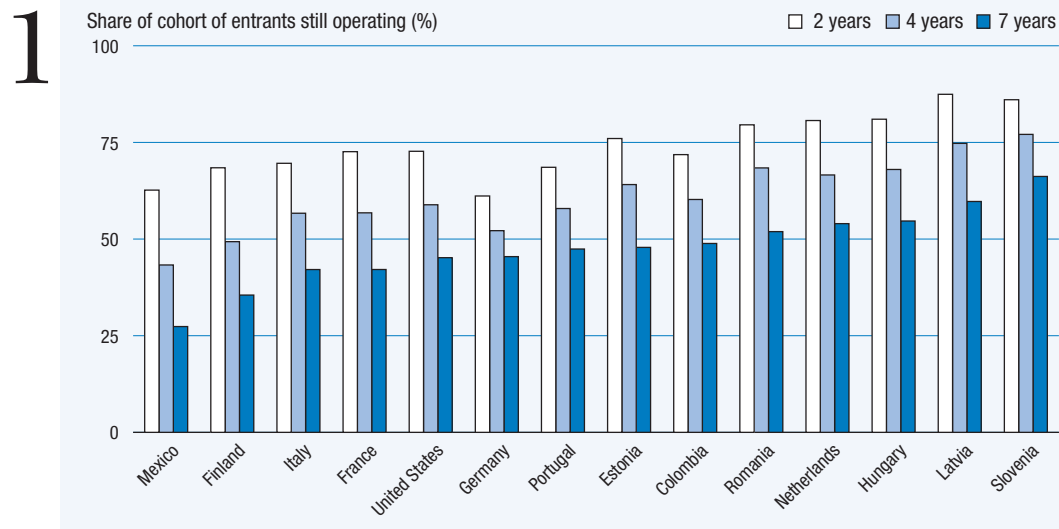
Surviving firms generate enough employment to partly offset the loss from young firms exiting the market. In Mexico, for example, about 27 percent of new firms survived seven years after entering the market, and these surviving firms employed more than 105 percent of the number of workers originally employed by all new entrants in their cohort. Four years after entering the market, approximately 68 percent of new Romanian entrants survived, employing

more than 77 percent of the number of workers originally employed by all new firms in their cohort (figure 2).

Entry reforms also have a direct positive effect on employment. In the Mexico study, Bruhn (2008) finds that the introduction of one-stop shops increased employment by 2.8 percent.

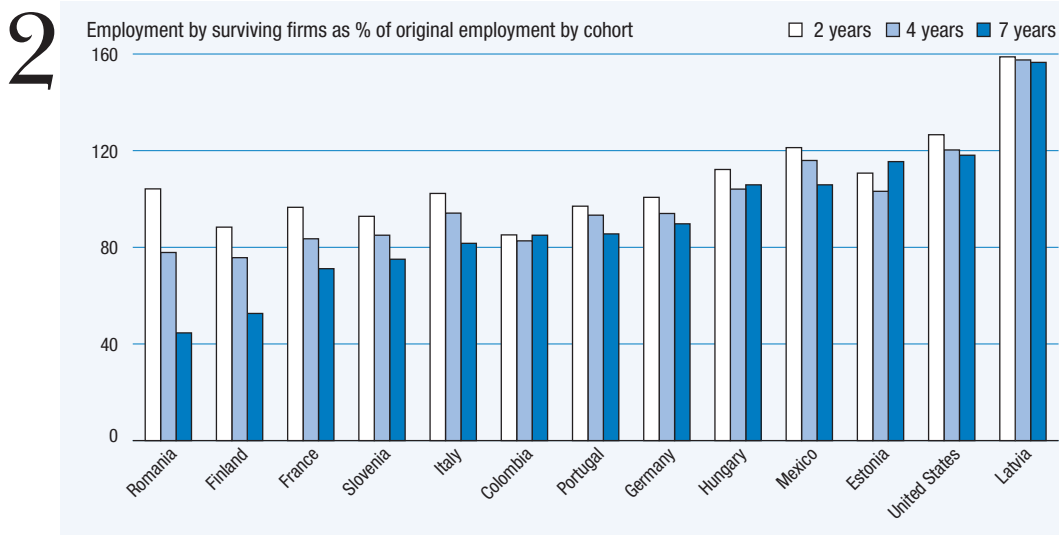
A simulation shows that in Guadalajara, Mexico, the introduction of a one-stop shop is associated with the creation of 5,520 new firms and 18,768 new jobs one year after the reform

Figure 1 Firm survival rates at different ages, 1990s



Sources: Bartelsman, Haltiwanger, and Scarpetta 2004; authors' recalculation in 2009 based on original data set.

Figure 2 Employment-based survival rates at different firm ages, 1990s



Source: Bartelsman, Haltiwanger, and Scarpetta 2004.

Table Simulated impact of one-stop shops on firms and employment in Guadalajara and Bogotá

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	Prereform baseline, 2003	Increase due to creation of one-stop shop		Estimated survivals after 7 years	
		Number	As % of prereform baseline	Number	As % of increase
Guadalajara (1.6 million inhabitants)					
Firms	110,405	5,520	5.0	1,510	27
Employment ^a	661,460	18,768	2.8	19,707	105
Bogotá (6.3 million inhabitants)					
Firms	187,683	9,760	5.5	4,768	49
Employment ^b	2,707,516	75,810	2.8	64,439	85

Sources: For Guadalajara, authors' calculations based on data from the municipality of Guadalajara and Bruhn (2008). For Bogotá, authors' calculations based on data from the Departamento Administrativo Nacional de Estadística of Colombia and the Chamber of Commerce of Bogotá and on estimates from Bruhn (2008) and Cárdenas and Rozo (2007). For estimated survivals after 7 years, authors' calculations based on data from Bartelsman, Haltiwanger, and Scarpetta (2004).

a. Employment data for Guadalajara refer to firm owners as well as workers.

b. Employment data for Bogotá do not include the public sector. (The estimate of the public sector share of employment was obtained from the International Labour Organization's Labour Statistics Database.)

Table Impact of entry reforms on total factor productivity, GDP, investment, and real output

4

Country	Study	Reform	Impact
Mexico	Bruhn 2008	Introduction of one-stop shop (SARE program) ^a	Decrease of 3.2% in <i>revenue</i> of incumbent business owners due to increased competition from new entrants
United Kingdom	Aghion and others 2009	Increase in foreign firm entry rate of 11.3%	Increase in <i>total factor productivity</i> of 1.4–3.1% depending on firms' level of technological development, with the higher estimate applying to firms close to the technological frontier
Cross-country	Barseghyan 2008	Increase in entry costs of 80% of GNI per capita	Decrease in <i>total factor productivity</i> of 22% Decrease in <i>GDP per worker</i> of 29%
Cross-country	Eifert 2009	Decrease of 10 days to start a business	Increase in <i>GDP growth rate</i> of 0.36% Increase in <i>investment rate</i> of 0.3 percentage points
Cross-country	Klapper, Laeven, and Rajan 2006	Reduction of registration cost from 75th to 25th percentile in Doing Business rankings	Increase in <i>value added per worker</i> of 14%

a. The SARE (Sistema de Apertura Rápida de Empresas) program introduced one-stop shops in Mexico.

(table 3). Seven years after the reform, we can expect 1,510 of the new entrants to still operate and employ 19,707 workers. Similarly, the introduction of a one-stop shop in Bogotá, Colombia, is associated with the creation of 9,760 new firms and 75,810 new jobs. Seven years after the reform, we can expect 4,768 of the new entrants to still operate and employ 64,439 workers.

New firms increase productivity, output, and investment

Firm entry increases labor productivity, output, and investment. The more productive new firms are, the more pressure they put on incumbents to increase productivity. Bruhn (2008) finds

that after the introduction of one-stop shops in Mexico, the revenue of incumbent business owners decreased by roughly 3 percent as a result of increased competition from new entrants. In the United Kingdom, Aghion and others (2009) find that entry of foreign firms increases the productivity of incumbent firms close to the technological frontier more than that of less advanced firms. And in India, Aghion and others (2008) find that after the elimination of the license raj, highly productive firms (those in the top third when ranked by productivity) experience larger increases in real output than less productive firms (those in the bottom third). Cross-country studies show that

a 10-day reduction in the time to start a business is associated with a 0.3 percentage point increase in the investment rate and a 0.36 percent increase in the GDP growth rate, and that a cut in registration costs (from the 75th to the 25th percentile) is associated with a 14 percent increase in value added per worker (table 4).

Entry reforms have greater impact when combined with other regulatory reforms

Because many regulations interact, deregulating several areas has synergistic effects. Productivity gains after entry reforms are larger in areas with more flexible labor regulations. For example, Aghion and others (2008) find that, following entry reforms, Indian states with more flexible labor regulations had real output gains 17.8 percent larger than those in states with less flexible labor regulations. Similarly, Kaplan, Piedra, and Seira (2007) find that the effects of the SARE (Sistema de Apertura Rápida de Empresas) program in Mexico were significantly larger in areas with better overall investment climates.

Conclusion

Evidence from both microeconomic and cross-country studies as well as from firm demographics studies shows that reforms to ease business entry are associated with increases in the number of new firms and sustained gains in economic performance, including improvements in employment and productivity. Countries around the world are aware of the importance of reforms to reduce the time and cost to register a business. Indeed, simplifying business registration has been among the most common reforms introduced by governments in the past six years.⁴ But even as reformers reap the benefits of simplification, there is no room for complacency. Starting a business is still expensive or time-consuming in more than 50 economies. Entry reforms are relatively easy to implement and have a proven impact. More should be done to encourage them across the globe.

Notes

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Klapper, Dorsati Madani, Andrei Mikhnev, and Rita Ramalho for their valuable inputs and comments. A longer version of this Note is available from the authors upon request. Neither version attempts to provide an exhaustive review of the literature on entry or looks at the specific effects of entry reforms on informality. Instead, both include the findings of studies that help address the questions whether entry reforms have a positive impact on firm creation; whether firms that enter the market survive and grow; what effects entry reforms have on productivity, investment, and employment; and how persistent those effects are. For a comprehensive literature review on entry, see Djankov (2009).

1. While the overall findings are clear, it is important to keep in mind two caveats. First, the magnitude of the impact may not be the same in all countries. Second, it cannot be assumed that the results are linear: a reduction from 16 procedures to 8 may not have the same impact as one from 8 procedures to 4.
2. Moving from the 75th to the 25th percentile in the *Doing Business 2010* rankings would mean reducing the cost to start a business from 24.5 percent of income per capita (as in Peru) to 0.7 percent of income per capita (as in Singapore) (World Bank 2009).
3. See Nicoletti and Scarpetta (2005); Bartelsman, Haliwanger, and Scarpetta (2004, 2009); and Alam and others (2008). The data come from business registers, social security databases, and corporate tax registers. The sample therefore comprises the universe of all formally registered firms and allows the study of entering as well as exiting firms.
4. World Bank Group, *Doing Business* database.

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