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Entrepreneurship Database 2012

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More information on the Entrepreneurship Database, as well as complete data, can be found at http://www.doingbusiness.org/entrepreneurship.

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Entrepreneurship in the Wake of the Crisis

New data from the 2012 World Bank Entrepreneurship Database show that the pace of new firm creation in most economies has begun to recover after the sharp drops experienced during the 2008–09 financial crisis. The database provides a unique indicator of new business registration around the world that can be used to study trends within economies and regions, the effect of reforms, and the factors that foster dynamic private sector growth.

Entrepreneurial activity is a pillar of economic growth. In the wake of the 2008–09 financial crisis, policy makers, private sector leaders, and researchers are renewing their focus on job growth and new firm creation. Often missing from their efforts, however, are internationally comparable, time-series data on formal entrepreneurship. The newly updated World Bank Entrepreneurship Database is a critical source of data supporting the measurement of entrepreneurial activity across economies and over time. The data allow a deeper understanding of the relationship between new firm creation, the regulatory environment, and economic growth.

The 2012 Entrepreneurship Database builds on earlier editions of the data. It incorporates improvements in methodology as well as data from additional low-income economies. The 2012 edition includes data from 130 economies in all, with 23 economies—including Bangladesh, Honduras, Iraq, and Sierra Leone—participating for the first time. In almost all economies data are collected directly from business registrars.

The main variable of interest is entry density, defined as the number of newly registered companies per 1,000 working-age adults (ages 15–64) per year. As in the World Bank's annual *Doing Business* report, the units of measurement are private, formal sector companies with limited liability. Because of the exclusion of informal firms and firms without limited liability, the database does not provide comprehensive coverage of firms in the 130 economies surveyed.

This Note offers the first analysis of the 2012 Entrepreneurship Database. It focuses on several questions:

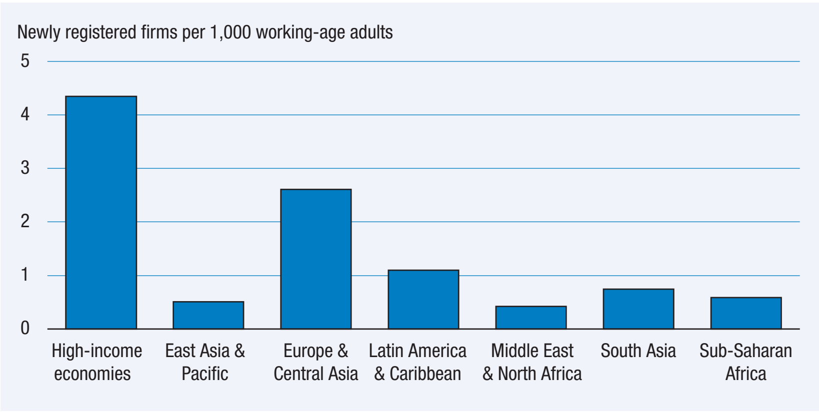
- What are the trends in new firm creation across regions?
- How have the financial crisis and ensuing recovery affected entrepreneurial activity in the formal sector?
- What is the effect of business registration reforms on new firm creation?

Entry density around the world

Entry density varies enormously across economies and regions. This variation stems from differences in macroeconomic conditions, the ease of formal business registration, the range of legal enterprise forms, and other regulatory factors that affect the entrepreneurial environment.

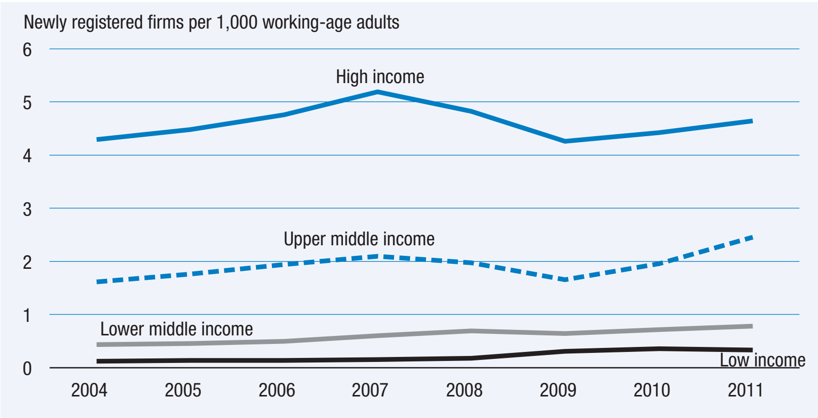
On average, 4.34 new formal companies with limited liability (referred to as "firms" hereafter) are registered each year per 1,000 working-age adults in high-income economies (figure 1).[1] In the developing world the average is 1.27. Among developing regions, Europe and Central Asia has the highest average entry density (2.61) and the Middle East and North Africa the lowest (0.42). Put another way, about 20,000 new firms register each year in Belgium—which has an average entry density for high-income economies in the 2012 sample. By contrast, only about 4,000–5,000 new firms register each year in Belarus, Guatemala, and Tunisia—each of which falls in the middle of the distribution of entry density for developing economies and has a working-age population similar in size to that in Belgium.

Figure 1 Entry density by region, average, 2004–11



Note: Entry densities are based on economy-level averages over the period 2004–11.
Source: Entrepreneurship Database, 2012 edition.

Figure 2 Entry density in 52 economies, 2004–11



Note: Entry densities are based on 52 economies with data available over the entire period.
Source: Entrepreneurship Database, 2012 edition.

Crisis, recovery, and entrepreneurship

With tight lending practices, depressed aggregate demand, and widespread uncertainty, an economic recession is a difficult time to start a business—and the data bear this out. Beginning in 2008, new firm creation dropped sharply, though by varying degrees across economies (figure 2). In general, the speed and intensity with which the crisis affected new firm creation varied by income level and crisis intensity. Economies with higher levels of income (GDP per capita), those with highly developed financial systems (as measured by the ratio of domestic credit to GDP), and those hit the hardest by the crisis experienced earlier and sharper contractions in new firm creation (Klapper and Love 2011b). In Ireland, for example, new firm registrations fell by 29 percent between 2007 and 2009. Indeed, in high-income economies the rate of new firm creation in 2009 was lower than it had been in 2004.

Another way to analyze the effect of the crisis is in terms of growth in entry density. Figure 3 shows the annual share of economies in the sample experiencing positive year-on-year growth in entry density. This method demonstrates that the impact of the crisis on entry density evident in figure 2 is not merely a case of a few large economies skewing aggregate trends—but instead an adverse effect on new firm creation in the majority of economies.

In each year from 2005 to 2007, more than 70 percent of economies achieved positive year-on-year growth in entry density. But this trend changed dramatically with the onset of the financial crisis. In 2008 just 60 percent of economies had a higher rate of new firm creation than in 2007. By 2009 the share with positive annual growth had dropped to 34 percent among the entire sample of economies—and to just 6 percent among high-income economies. Indeed, among high-income economies the *level* of entry density dropped by an average of 10 percent between 2007 and 2009. In some economies—such as Denmark and Spain—the drop over the same period exceeded 40 percent.

The impact of the financial crisis on new firm creation in the developing world followed a different path. Growth in entry density in developing economies stalled in 2008, but about 70 percent of developing economies still had a higher entry density that year than in 2007. By 2009, however, less than 50 percent of developing economies achieved positive annual growth in entry density. It appears that the crisis hit later and adversely affected new firm creation rates in fewer economies in the developing world than among high-income economies.

Moreover, the effect of the crisis in developing economies may have been mitigated by simultaneous reforms that simplified business registration. According to the *Doing Business 2011* report, Peru, Croatia, and Kazakhstan were the top three reformers in "Starting a Business" during the crisis period, and each of these economies experienced steady growth in new firm registrations from 2007 to 2010.

While it's still too early for a comprehensive analysis of the rebound in new firm creation following the crisis, data from 2010 and 2011 begin to shed light on the recovery patterns. There was an undeniable turnaround in 2010, with 66 percent of economies in the sample seeing an increase in entry density over 2009. But for the majority of economies, entry density in 2010 remained significantly lower than in 2007. In 2011 only about 60 percent of economies saw an improvement in the rate of new firm creation, considerably below the precrisis average of 75 percent.

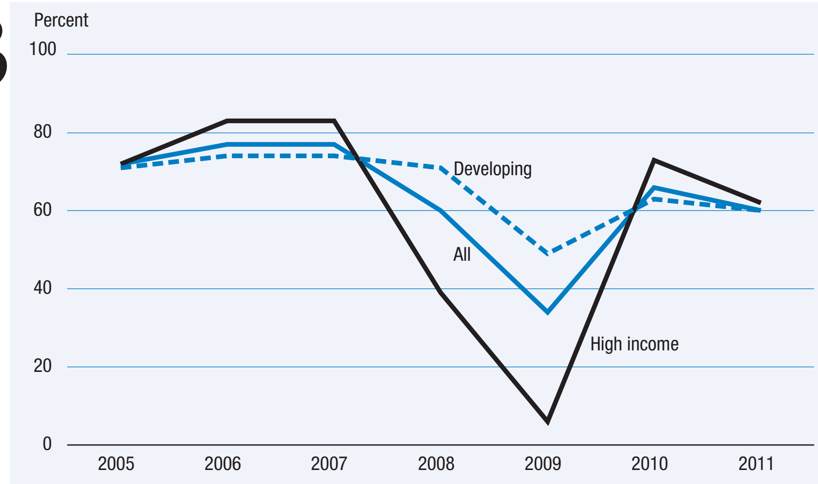
Measuring the effect of reforms

Previous research using earlier editions of the Entrepreneurship Database has shown a significant relationship across economies between the cost, time, and procedures required to start a business and new firm registrations (Klapper and Love 2011a). These relationships persist even after controlling for GDP per capita and financial development (figure 4).

More interesting perhaps is that within-economy reductions in the cost, time, and procedures required to register a firm can have large positive effects on new firm creation—though generally the reductions must exceed 50 percent to significantly change the trajectory of new firm registrations. The research also confirms that there are important complementarities in multiple reforms affecting two or more of these business registration indicators.

Six country examples illustrate the effect that business registration reforms can have on new firm registrations (figure 5). Morocco's reduction

Figure 3 **Share of economies with year-on-year growth in entry density, 2005–11**



Note: Entry densities are based on 52 economies with data available over the entire period.
Source: Entrepreneurship Database, 2012 edition.

Figure 4 **Entry density and procedures to start a business**

Note: Data refer to 93 economies.
Source: Klapper and Love 2011a.

Figure 5 **Entry density before and after business registration reforms in selected economies**

Note: Reforms reflected in the figure were recorded by the *Doing Business* report as having affected its Starting a Business indicators. The year of reform (indicated by 0) is 2009 for Bangladesh and Rwanda, 2011 for Chile, 2007 for Kenya, 2006 for Morocco, and 2010 for Sweden.
Source: Entrepreneurship Database, 2012 edition; Doing Business database.

of the minimum capital requirement for incorporation in 2006—from 700 percent of gross national income (GNI) per capita to 67 percent—helped to dramatically increase entry density. So did Rwanda's multiple changes in 2009—which cut the procedures needed to register a business from 8 to 2, the time from 14 days to 3, and the minimum capital requirement from 109 percent of GNI per capita to 10 percent. Numbers tell the story: in 2008, 1,136 new firms registered in Rwanda, in 2009 the number was 3,028, and in 2010 and 2011 it exceeded 4,500.

Conclusion

The 2012 Entrepreneurship Database provides a novel first look at the pace of recovery in new firm creation following the global financial crisis. Future rounds of data will provide a more comprehensive view of this process and support a deeper analysis of the factors that support a robust rebound in formal entrepreneurship. The data set can also help guide effective policy making and deliver new capabilities for identifying the effect of reforms.

Note

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1. Economies categorized by the International Monetary Fund (IMF) as offshore financial centers are excluded from the analysis. For the current list of these economies, see "Offshore Financial Centers (OFCs): IMF Staff Assessments," IMF, June 16, 2011, http://www.imf.org/external/NP/ofca/OFCA.aspx.

References

Klapper, Leora, and Inessa Love. 2011a. "The Impact of Business Environment Reforms on New Firm Registration." Policy Research Working Paper 5493, World Bank, Washington, DC.

———. 2011b. "The Impact of the Financial Crisis on New Firm Registration." *Economics Letters* 113 (1): 1–4.

World Bank. 2010. *Doing Business 2011: Making a Difference for Entrepreneurs*. Washington, DC: World Bank Group.

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