

Firm Size Distributions in Developing Countries: The Role of Financial and Regulatory Constraints

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Small and medium-sized enterprises form the backbone of most advanced economies, contributing significantly towards employment and income growth. In many developing countries, however, the distribution of firms tends to be dominated by microenterprises and large-sized firms (Sleuwaegen and Goedhuys, 2002). This phenomenon, dubbed “the missing middle” in the literature, has initiated an unsettled debate as to what drives firm growth in developing countries. Several studies have emphasized that the harsh regulatory burden in developing countries keeps firms small and even pushes them into informality (Beck et al., 2007; Dinh et al., 2010; Beck and Demirguc-Kunt, 2006). Other studies suggest that credit constraints cause distortions that inhibit the growth of small firms (Sleuwaegen and Goedhuys, 2002).

The recent literature on factor allocation highlights the large economy-wide effect of distortions that affect firms’ ability to grow. Alfaro et al. (2007) show that part of cross-country income differences can be explained by differences in distortions that affect the ability of firms to grow. Hsieh and Klenow (2009) show that distortions that affect firm size have significant negative effect on aggregate TFP in China and India. Lashitew (2011) similarly finds that misallocation of inputs due to size-related distortions significantly reduce aggregate TFP in developing countries.

Two competing explanations can be offered as to why small firms fail to grow in developing countries. The most widely studied cause is the presence of financial constraints. Several studies find that small firms are more financially constrained than large ones (Beck et al., 2007; Dinh et al., 2010; Beck and Demirguc-Kunt, 2006). This is because of information asymmetries that force banks to direct their loans towards relatively larger firms that can provide more collateral. This starves small firms of financial capital required to invest and grow even when they have higher returns for capital.

The second reason why small firms fail to grow in developing countries is that regulatory constraints are severe. According to this explanation, regulatory constraints make business unprofitable for small firms thus lowering their returns to capital and their ability to grow. For example, Sleuwaegen and Goedhuys (2002) find that insufficient access to infrastructure reduces the growth of medium-sized firms. Ayyagari et al. (2007) report that entry and exit barriers increase informality and reduce the proportion of small firms. Similarly, Lashitew (2011) finds that higher hiring and firing costs are associated with size-related misallocation.

Cross-country evidence on the relative importance of the two explanations is, however, limited. This is partly because limitations in data: comparable firm-level data that covers many countries has been scarce until recently. The goal of this paper is to examine the relative importance of credit and regulatory constraints on the size distribution of developing country firms. The study is based on the World Bank’s enterprises survey data which covers around 20,000 firms in more than 65 countries. This dataset is a unique, comparable, firm-level dataset that spans dozens of countries.

Specifically, the paper seeks to answer the following research questions:

1. Are countries with less severe credit and regulatory constraints characterized by firm-size distributions that are relatively dominated by small- and medium-sized firms (relative large and microenterprises)?
2. Do less severe credit and regulatory constraints allow small firms to invest more?

The first question looks into the effect of cross country differences in financial and regulatory constraints on a static indicator of firm size distributions. This question exploits the most important advantage of our dataset, which is its large country coverage, to link cross-country differences in firm distribution with institutional variables. Regulatory constraints that will be considered include barriers to firm entry and exit, and firing and hiring costs. The outcome variable can be measured using the share of small and medium sized firms in the total population of firms, or the skewness of the size distribution. The second question, on the other hand, focusses on the dynamic investment response of firms of different size groups instead of focusing on the static size distribution itself. Our dataset includes a large number of firm-specific responses related to financial and regulatory constraints, and so allows us to examine the effect of these constraints on investment at firm level.

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