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Journal of Monetary Economics 55 (2008) 219-233

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# Nobody's business but my own: Self-employment and small enterprise in economic development $\stackrel{\leftrightarrow}{\sim}$

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Received 24 July 2006; received in revised form 8 November 2007; accepted 9 November 2007 Available online 21 November 2007

### Abstract

In most poor countries, small firms and self-employment are the dominant forms of business enterprise—even in the manufacturing sector. For rich countries, in contrast, self-employed people account for very small shares of manufacturing employment and output. This paper builds on Lucas [1978. On the size distribution of business firms. Bell Journal of Economics 9(2), 508–523] to ask whether structural changes of this kind are driven by productivity differences. A model, calibrated to Japanese time-series data, is shown to mimic key features of cross-country and time-series data. The results support the idea that changes in aggregate productivity account for much of the cross-country variation in establishment size and self-employment rates.

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JEL classifications: O1; L11; J23

Keywords: Self-employment; Small enterprise; Firm size distribution

#### 1. Introduction

Small businesses dominate the economic life of most developing countries. In Accra and Agra, Dhaka and Dakar, family firms and the self-employed account for the bulk of production and employment. This is true not only in agriculture and the service sector, but also in manufacturing. From cramped workshops and backyard foundries emerges an astonishing array of manufactured goods: clothing, footwear, pottery, metal products, processed foods, cement blocks, to name a few. In Ghana, as an illustration, more than 75 percent of

0304-3932/\$ - see front matter © 2007 Elsevier B.V. All rights reserved. doi:10.1016/j.jmoneco.2007.11.003

<sup>&</sup>lt;sup>\*</sup> Early portions of this research were supported by National Science Foundation Grant NSF/SBR 9515256 and by the MacArthur Interdisciplinary Program for Peace and International Cooperation at the University of Minnesota. Subsequent research was conducted while I was a visiting fellow at the Economic Growth Center, Yale University; I greatly appreciate the recurring hospitality of the Growth Center faculty and staff. I am indebted to Tim Kehoe, Ed Prescott, Boyan Jovanovic, Jeffrey Campbell, Vincenzo Quadrini, Robert King, and Cheryl Doss for their comments and suggestions on early drafts of this manuscript. A working paper version of this paper, including details of the calibration procedure and sensitivity analysis, is available at: http://lanfiles.williams.edu/~dgollin/.

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the manufacturing workforce reports being self-employed, and fewer than 15 percent of manufacturing workers are employed in establishments with more than 10 workers (Republic of Ghana, 1987, 1991).

In most rich countries, by contrast, small enterprises play a relatively minor role in economic activity particularly in manufacturing. For example, in the United States, manufacturing establishments with fewer than five employees accounted for less than 1 percent of the value added in 1997, while firms with more than 500 employees accounted for almost half the value added (US Census Bureau, 2002).<sup>1</sup> These data are consistent with a broad range of cross-section and time series evidence suggesting that as countries grow richer, small businesses and own-account work play a diminishing economic role.

What accounts for the differing importance of small firms and the self-employed in rich and poor countries? Can a neoclassical model adequately capture the relationship between economic development and the structure of production and employment? Is the small average firm size in poor countries necessarily the outcome of bad policy choices?

This paper attempts to shed light on such questions by analyzing a model that incorporates establishment size explicitly. The model, based on the Lucas (1978) span-of-control framework, is explored quantitatively, using parameters drawn from Japanese time-series data. The calibrated model suggests that the large differences observed across countries in establishment size and employment structure can be explained to a surprising extent by differences in productivity. Although distortionary policies—such as taxes that repress the growth of larger firms—undoubtedly play a role in exacerbating these effects, there would be substantial differences across countries even in the absence of distortions. Moreover, the model suggests that it is efficient in poor countries for many lower-skilled people to remain self-employed.

Section 2 briefly summarizes key facts concerning establishment size and economic growth, along with previous literature. Section 3 presents a dynamic general equilibrium model that is used to address the research questions. Section 4 describes the procedure by which the parameters of the model were chosen and the strategy for using the model to address research questions. Section 5 reports some results of interest, and Section 6 concludes.

#### 2. Background and literature

As early as the classical economists, observers have noted that economic growth is accompanied by a concentration of production in ever-larger units and by a corresponding decline in self-employment and family enterprises. In more recent times, empirical work by Kuznets (1966), among others, documented this tendency in cross-country data. Kuznets suggested that one of the principal "characteristics of modern economic growth" was a series of shifts in the structure of production: from small to large firms; from self-employment to wage work; and from unincorporated enterprises to large corporations. A number of types of data reinforce this view today.

The International Labor Organization reports national-level data on the employment status of manufacturing workers for more than 50 countries for the years 1988–1993 (ILO, 1993). Table 1 shows the ratio of employers and own-account workers (a single category in the data) to all workers, in all countries with available data. (For convenience, denote this as the "entrepreneur-workforce ratio.") The data indicate clearly that in poor countries, relatively large proportions of the workforce are employers or own-account workers. Few people in poor countries work for wages—even in the manufacturing sector.<sup>2</sup> Clearly this is not true in rich countries. In the United States, the entrepreneur-workforce ratio for manufacturing was less than 0.02. In Bangladesh and Nigeria, by contrast, the ratio was almost 0.80. Although some rich countries, such as Italy, are known for having vital small business sectors, these are relatively modest outliers: there is a surprisingly

<sup>&</sup>lt;sup>1</sup>There are a great many small manufacturing establishments; the 1997 Census of Manufacturing reported that firms with 1–4 employees represented about one-third of all establishments. But these establishments employed only 1.5 percent of the manufacturing workforce and produced only 0.8 percent of value added.

<sup>&</sup>lt;sup>2</sup>For the most part, this paper will focus on the data for manufacturing alone, as a way to control for differences across countries that arise due to differences in the sectoral composition of output. Furthermore, note that the ILO data combine "entrepreneurs" and "own-account workers" in a single category; it is not possible to distinguish between the two. Finally, note that the data implicitly treat two other categories of workers, "unpaid family laborers" and "those not classifiable by status" as employees, rather than employers. In the data, and in the model economy below, these individuals are treated as workers rather than as self-employed.

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