Financial Frictions, Misallocation and Plant-Size Distribution*

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Abstract

We quantify the effect of financial frictions on the loss of aggregate productivity through resource misallocation. To this aim, we first measure the distortions (or wedges) on capital and output by applying the static monopolistic competition model to a rich plant-level data set of manufacturers in Japan. Next, we develop a dynamic model of monopolistic competition in which entrepreneurs are subject to productivity shocks and borrowing constraints, but can accumulate savings. Calibrating the dynamic model to match the plant-size distribution of manufacturers in Japan, we find that aggregate TFP would be higher by 15% if there were no borrowing constraint, which amounts to about 60% of TFP losses caused by capital distortions, or about 30% of total TFP losses caused by both capital and output distortions. We also find that borrowing constraint reduces the share of largest plants and increases the share of smallest plants.

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