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Labor Market Regulation and Informality

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Abstract

Developing countries are characterized by a high share of informal workers and several types of labor market regulation. We study the effects of the enforcement of this type of regulation on firm dynamics in Brazil, using different linked administrative data sets. Using a difference-in-differences design, we show that firms caught with informal workers experience a slowdown in their growth rates that last several years. Informal workers are present in firms of all sizes. Formal and informal workers exhibit almost identical observable characteristics.

Keywords: Informality, Labor market regulation, Firm dynamics, Developing countries

JEL codes: D21, E26, J46, O17

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1 The Project

Labor markets in developing countries are characterized by a high share of informal workers (La Porta and Shleifer, 2014; Ulyssea, 2018). Governments in these countries impose several forms of regulation in these markets: payroll taxes, firing costs, etc. From a firm's perspective, informality can act as a way out of these constraints. What, then, are the consequences of the enforcement of labor market regulations on firm productivity and firm dynamics? We study this question empirically and quantitatively in the context of Brazil.

Brazil is a suitable setting to study the effects of labor market regulation on informality and firm dynamics. First, labor informality is pervasive in the country, and informal workers account for a high share of the labor force. Second, there are public policies specifically designed to "formalize" informal workers. Lessons learned in this context can be useful in other developing countries, as similar policies exist elsewhere. Third, the richness of the Brazilian data allows us to leverage multiple individual- and firm-level administrative datasets to investigate the effects of labor market regulation on firm dynamics.

We use two linked administrative data sets for Brazil: the matched employer-employee data set and the universe of firm-level inspections conducted by the Ministry of Labor. One of the objectives of these inspections is to uncover informal workers employed by audited firms. With the linked data sets, there is information on what happened to the firm both before and after an inspection takes place.

Several results emerge from the data. First, a successful audit has a sharp and long-lasting effect on firm dynamics. When a firm is caught with informal workers, its growth rate stalls for several years. That is, being caught with informal workers is associated with sustained slower firm growth. This result appears both in descriptive analyses and via estimations using state-of-the-art staggered difference-in-difference techniques (Callaway and Sant'Anna, 2021; de Chaisemartin and D'Haultfœuille, 2020; Sun and Abraham, 2021). Second, informal workers are employed by firms of all sizes. This is not a phenomenon restricted to small firms. Though smaller firms (with less than 10 employees) caught by audits can have 40% or more of their workers off the books, large firms (with 500 employees or more) employ close to 10% of their work force as informal workers. Third, formal and informal workers exhibit almost identical

characteristics. Both groups have similar age, education and gender composition, though informal workers earn slightly less. Hence, this is not a story about different types of workers performing different types of jobs. Formal and informal workers within the same firm are very much alike.

Our paper relates to a literature that explores the effects of informality in labor markets in developing countries. Ulyssea (2018) studies informality in Brazil. Firms can themselves be formal or informal, and formal firms can hire both formal and informal workers. Firms face a cost of hiring informal workers, and this is supposed to act as a reduced-form way of capturing audits. We add to this by explicitly modeling audits and connecting this to the growth path of firms. Meghir et al. (2015) also study informality in Brazil using a Burdett-Mortensen style model. Formal firms cannot hire informal workers. They work with a one-worker firm setup and cannot speak to firm dynamics as we do here. De la Parra and Bujanda (2020) study informality in the Mexican labor market using a reduced-form strategy, but they do not focus on firm dynamics. Almeida et al. (2012) perform a reduced-form analysis of labor regulation in Brazil. Since most regulation is federal, they exploit regional variation in enforcement. They use similar data as we have, but they do not have firm-level data. Moreover, they do not focus on the impact of these audits on firm dynamics. Coşar et al. (2016) develop a search model applied to the labor market in a South American trade context where they study firm dynamics. However, they do not explicitly deal with informal workers, as we do here.

2 Conclusion

Developing countries are characterized by a high share of informal workers and several types of labor market regulation. We study the effects of the enforcement of this type of regulation on firm dynamics in Brazil, using different linked administrative datasets. Using a difference-in-differences design, we show that firms caught with informal workers experience a slowdown in their growth rates that last several years. Informal workers are present in firms of all sizes. Formal and informal workers exhibit almost identical observable characteristics.

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