

*The seventh in our impact series summarizes research which arose from research staff working together with operational staff on a World Bank ESW on policies to increase the formality and productivity of firms in Bolivia. It is also illustrative of how an instrumental variables approach can be informative in impact evaluations.*

## Do Marginal Firms in Bolivia Benefit from Formalizing?

David McKenzie (with Yaye Seynabou Sakho)

The majority of firms in many developing countries are informal. The influential view of Hernando de Soto, that these informal firms are potential entrepreneurs hampered by red tape has motivated the Doing Business project of measuring and reforming barriers to business registration around the world. And multiple Bank projects and Government efforts are designed to try and encourage firms to become formal.

Underlying these policies is, in part, the notion that formalizing benefits firms, giving them more access to credit and government services, and making them more productive. Simple comparisons of formal and informal firms, such as those conducted by the McKinsey Global Institute in a number of countries, indeed show formal firms to be more productive.

But these simple comparisons ignore the fact that formality is a choice of firms – if it is really so beneficial, why don't firms register of their own accord?

### The Bolivian Context

Bolivia has the highest levels of informality in Latin America. While there are several levels of registration with the Government, firms understand formality to mean registering for taxes. Clearly paying taxes involves an easily detected cost to firms. The main question of interest is whether it also has benefits.

A series of focus group surveys and a detailed firm survey were carried out in urban Bolivia to try and understand the costs and benefits for formality as part of a World

Bank ESW. This survey revealed that 39 percent of firms without a tax registration number didn't even know what one was, while the majority of unregistered firms did not know where they had to register.

### Identifying the Impact of Registering

If all firms are fully informed and face the same costs of registering, then any comparison of formal and informal firms is not going to be informative about the effects of formalizing – all the firms that it would benefit to register would have done so, and all those that it would not benefit would remain informal.

However, in the Bolivian context the lack of information that many firms have about registering provides a reason why some firms might register, and other similar firms might not. We use this idea to identify the impact of registering.

We measured the GPS coordinates of each firm in our survey, and also obtained the coordinates of the city center, municipal government offices, and tax registration office. We use this to measure the distance of a firm to the tax registration office, and to control for the distance to the city center and to the municipal registration office. This distance to the tax office is then used as an instrument for formalizing. Intuitively, this allows us to measure the impact of formalizing on firms who would register for taxes if they were close enough to the tax office to have the information and lower cost of registering, but who otherwise don't register.

**Do you have a project you want evaluated?** DECRG-FP researchers are always looking for opportunities to work with colleagues in the Bank and IFC. If you would like to ask our experts for advice or to collaborate on an evaluation, contact us care of the Impact editor, David McKenzie ([dmckenzie@worldbank.org](mailto:dmckenzie@worldbank.org))

## **Formalizing Pays – but only for some**

We find that:

**1. The marginal firm who is only informal because of lack of information stands to almost double profits by registering.** This estimate is robust to a number of controls for possible threats to our identification strategy, and suggests big gains to formalizing.

**2. However, this gain is only for firms with 2 to 5 workers. Smaller firms would see profits fall while formalizing – and large informal firms also lose out by formalizing.** Firms which are too small see no benefit from formalizing, they just pay more costs in terms of taxes. Larger firms who have managed to stay informal are likely to have made a conscious choice to do so, and formalizing would also just mean more taxes.

**3. The benefits of formalizing seem to mainly be through attracting more customers, not through access to credit.** In the focus group interviews firms identified the ability to give tax receipts to consumers and thereby gain new customers who want these receipts as the main benefit. This is verified in our quantitative work. However, while many firms say access to credit is a constraint, few participate in the formal financial system, and banks do not appear to be concerned with tax registration status while granting credit.

## **Policy Implications and Future Directions**

Our findings suggest that registering for taxes would seem to benefit only the unregistered firms who don't know how to register, and only the small, but not too

small, firms among them. This suggests several directions for policy.

**1. Better information provision by Governments on how to register and more places to do so will likely lead to less informality.** The IFC and municipal governments had devoted some effort to registration of municipal simplification in Bolivia, and we found firms had more information about this process, with distance to the municipal office not mattering for registration. In contrast there had been much less effort to simplify and explain tax registration.

**2. Yet most informal firms are unlikely to want to become formal.** Our results show big gains to firms whose lack of knowledge and travel costs prevent them from formalizing. The rest of the firms don't stand to gain from formalizing. This accords with the finding that after business registration reform in Mexico, most of the new businesses came from new business start-up, rather than registration of informal businesses (see Impact Note 2).

**3. More experimentation is needed over what it takes to get larger informal firms to formalize.** Owners of larger firms who are informal tended to be of higher entrepreneurial ability than formal firm owners- so they may have figured out ways to avoid inspections and grow their businesses without formalizing. More enforcement on these larger businesses along with business development programs which are tied to formalization might get these firms to formalize – evaluating whether this works in practice is a priority.

For further reading see:

McKenzie, David and Yaye Seynabou Sakho. "Does it pay firms to register for taxes? The impact of formality on firm productivity?", forthcoming, *Journal of Development Economics* (and also available as World Bank Policy Research Working Paper No. 4449)

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