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Impact of Crime on Firm Entry: Evidence from South Africa

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High crime rates in South Africa are an important aspect of the business environment and hence they affect the costs of doing business. In this study we employ the regional variation in the incidence of crime and business registrations across local municipalities in South Africa to investigate the effect of crime on the entry of firms. We utilize a unique dataset of business registrations and the incidence of crime from the South African Police Service for 330 municipalities in South Africa. South Africa provides us a valuable case study for this analysis. The relationship between crime and business activity is well-established in the South African literature. The World Bank Enterprise Surveys of South African firms reveal that South African firms are far more likely to rank crime as a major constraint compared to similar upper-middle income countries. Consequently, the costs of crime as a percentage of revenue are higher in South Africa than in comparator upper-middle income countries (World Bank 2010). A survey of firms about constraints to private sector investment in the Johannesburg area highlighted crime and safety as one of the key constraints to doing business (Rogerson and Rogerson, 2010).

We argue that crime imposes a cost on firms and that this in turn might inhibit entry of less productive small firms by negatively affecting their expected profits. Crime may increase firm costs in myriad ways. Firms may have to spend on security systems such as alarms, trackers on vehicles, electric fences or armed guards to keep their property and staff secure. Available evidence at the firm level shows that crime may induce substantial costs in South Africa. Security costs accounted for about two-thirds and a third of the total costs of crime in 2003 and 2008 respectively for the average firm (World Bank, 2005; 2010). World Bank (2005), reported the costs of crime for the median firm of about 5 percent of labour costs. In addition, firms may incur higher costs of recruiting or relocating skilled labour. Finally, they may be reluctant to invest in expensive equipment and machinery for fear of losses due to theft or vandalism, which might negatively affect productivity. Our empirical strategy relies on relating changes in firm entry, measured by business registrations, in a municipality over time, and changes in the incidence of crime, after controlling for municipality specific trends and other factors such as income, infrastructure quality and service provision. Thus we identify the effect of crime on firm entry after accounting for any economic shocks associated with municipality trends and average crime rates in a municipality.

We find that an increase in crime rates, in particular, the property crime rate reduces business entry. A one percent increase in total crimes reduces business entry by 0.53 percent. Focussing on crime types, we find that a one percent increase in property crime is associated with a decrease in firm entry of 1.04 percent. We also show that the effect of property crimes is different across sectors. Results are also robust to using rainfall shocks as an instrument for crime, to control for the potential endogeneity bias that arises from the fact that crime might be a consequence rather than a cause of greater business activity. Intuitively, our results suggest that if we have two municipalities, for example, with the same characteristics in terms of income, access to infrastructure, and other unobserved characteristics but only differ in terms of crime, firms will register in a municipality with low crime rates.

Our study has several policy implications. First, it highlights the importance of strong institutions such as policing and private security, particularly at the regional level, for economic growth and business dynamism. This is particularly relevant for emerging economies like South Africa that grapple with concerns of regional inequality. Given the historical context of Apartheid, most economic activity in the country is concentrated in the three provinces of Gauteng, Western Cape and KwaZulu-Natal, which have contributed about two-thirds to overall economic activity since 1996 (StatsSA, 2012). However, 60 percent of the South African population resides in other marginalized areas (World Bank, 2014), suggesting that it is crucial to identify constraints to private sector development in such regions. Second, it suggests that the high costs that crime imposes is most likely to deter smaller firms from entering the market. This might have implications for the labour market, since smaller firms typically employ more unskilled labour relative to larger, more productive firms. Finally, by deterring entry, crime might be associated with reduced competition in the industry, and this can have welfare implications.