Comment

Adriana Kugler: This paper examines the rise in informal sector employment in Colombia from 1996 to the early 2000s and the subsequent decrease in 2004. It is particularly interesting to study the case of Colombia because informality in Colombia is characterized by exclusion as opposed to voluntary participation in the sector.[1]

This paper focuses on the potential role of nonwage labor costs (or payroll taxes) and minimum wages in explaining informality in Colombia. The idea is that labor regulations make it costly for employers to hire in the formal sector and induces employers to hire in the informal sector, where they are not subject to these costs. For this story to be valid, however, both nonwage labor costs and minimum wages would have to be binding. Payroll taxes are binding only as long as the worker does not pay for these in the form of lower wages. Kugler and Kugler find evidence that only about a fifth of the cost of payroll taxes is passed on to workers and that this shift is greater for nonproduction or skilled workers than for production or unskilled workers.[2] Thus, while payroll taxes do seem to impose a substantial cost on employers, this cost is greater when hiring unskilled workers than when hiring skilled workers. As I explain below, this is at odds with some of the findings in the paper. In the case of minimum wages, Maloney and Núñez find that minimum wages are high enough in Colombia to be binding.[3]

Moreover, for these factors to explain the rise in informality in Colombia, payroll taxes and minimum wages would have to have been increasing during the rise in informality and decreasing starting in 2004. Nonwage labor costs did, in fact, increase sharply between 1994 and 1996, but they remained

1. Perry and others (2007). See, for example, Cunningham and Maloney (2001) for an analysis of voluntary participation in the informal sector in Mexico.
2. Kugler and Kugler (2009).
3. Maloney and Núñez (2004).

high thereafter. Minimum wages, in turn, increased sharply in 1998 and fell somewhat after 2004. Thus, while nonwage labor costs and minimum wages somewhat follow the pattern of informality, the business cycle could very well explain the rise in informality in the late 1990s and the subsequent fall in 2004. The empirical analysis does not do a satisfactory job of controlling for business cycle effects.

Before examining the impact of nonwage labor costs and minimum wages on informality, the paper assesses various definitions of informality, including the standard International Labor Organization (ILO) definition based on firm size and occupation and a definition based on coverage. The coverage definition used in the paper defines workers as formal if they make pension and health insurance contributions. The problem with this definition is that the focus would have to be on whether the employer and not the worker pays for pension and health insurance, as it is the added costs to the employer that induce firms to hire in the informal sector. Which definition is used for the analysis matters because the coverage definition appears to be countercyclical, while the firm size and occupation definition show a sustained increase in informality starting in 1996 (see figure 1).

The paper then reports regressions of these different definitions on individual demographic characteristics, household income, a ratio of the minimum wage to the median wage in the city, and nonwage costs as a fraction of the individual's salary. The analysis thus exploits variation in the minimum wage across cities and over time. In addition, the nonwage labor costs vary at the individual level. The problem is that whether or not the person is informal determines their wage, so the causality may run from informality to the ratio of nonwage costs to salary. This complicates the interpretation of the estimates on the nonwage cost variable. It would have been much better to exploit the legislated changes in pension and health contributions for different types of workers in this context.

The results show that higher minimum wages are positively associated with the firm size definition of informality and that nonwage labor costs are positively associated with both definitions of informality. The results further show that minimum wages are more strongly associated with informality for less-skilled workers than for skilled workers, as one would expect. However, the analysis indicates a stronger association of nonwage labor costs with informality for highly educated employees, which is at odds with the previous evidence on the impact of payroll taxes. If, as Kugler and Kugler report, a higher fraction of payroll taxes can be passed on as lower wages for skilled than for unskilled workers, then these costs should be more onerous for firms hiring unskilled workers, thereby inducing greater informality for this group.[4] This result may instead suggest reverse causality if formal activity is more strongly associated with salaries for highly skilled workers.

The most interesting part of the paper explores transitions from formality to informality and from informality to formality using a similar specification to the one used for the probability of being informal, but including an indicator of whether the person changed sectors and the unemployment spell. The paper does not clearly explain what data are used to follow these transitions, as panel data were only available for Colombia from 2000 to 2006. It seems instead that the paper is using information on the past job for those who changed jobs. In this case, there would be a selected sample, as only those who changed jobs during the past year would be included in the analysis. This could generate positive biases if, for example, those who change jobs are more likely to be discontent with their working conditions and to move toward jobs with better conditions.

The main results in terms of transitions show that the minimum wage increases transitions from formality to informality, but not the other way around, and that minimum wages have a greater impact on less-skilled workers. However, as with the probability of being informal, the analysis on transitions finds the odd result that nonwage labor costs increase transitions from formal to informal and that the effect is greater for skilled workers. This is at odds not only with previous analyses of payroll taxes in Colombia, but also with the description in the introduction and conclusion, which states that "all in all, our results suggest that labor market rigidities affect low-skilled workers the most."

As mentioned above, the patterns of informality are highly countercyclical, but so is the transition from the formal to the informal sector. It seems particularly important in this context to control for business cycle measures. The analysis claims to proxy for the business cycle with the household income variable, but per capita household income is not a good measure of the business cycle since there are many permanent and transitory factors that affect household income besides macroeconomic factors. In fact, the descriptive analysis at the beginning of the paper shows a strong positive correlation between unemployment and informality. It is not clear, therefore, whether what is being captured by the minimum wage measure is simply an effect of

4. Kugler and Kugler (2009).

the business cycle on informality. The regressions should have controlled for gross domestic product or gross state product, as well as other contemporaneous changes in regulations, given the other structural reforms occurring in Colombia during this period. These included a major labor market reform that reduced dismissal costs in Colombia in 1991, a major trade reform that took place in 1991, and capital market deregulation in 1992.[5] While some of these changes, such as the reduction in dismissal costs, may have contributed to reducing informality, others, such as trade opening, may induce firms to move toward informality.[6]

5. See Kugler (1999, 2004) on the labor market reform and Eslava and others (2004, 2010) on the capital market deregulation.

6. See, for example, Goldberg and Pavcnik (2003); Eslava and others (2009, 2010).

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