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Tracing the impact of large minimum wage changes on household welfare in Indonesia

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ABSTRACT

Minimum wage legislation has been introduced and expanded in many developed and developing countries, in the hope that it would improve the living standards of the poor and reduce inequality. This study examines the impact of large minimum wage changes in Indonesia. The results indicate serious limitations of the minimum wage for improving living standards and reducing inequality.

1. Introduction

Minimum wage legislation has been introduced and expanded in many developed and developing countries in recent years, in the hope that it would improve the living standards of the poor and reduce inequality. Numerous studies have examined the effects of the minimum wage on wages and employment to understand the workings of labor markets, and some studies have examined the effect on the distribution of household income to assess the achievement of policy goals (Card and Krueger, 1995; Brown, 1999; Neumark and Wascher, 2008). Nonetheless, to the best of my knowledge, no study has examined the effect on the distribution of household consumption, even though a broad consensus exists that consumption is a better measure of welfare reflecting expected lifetime resources (Cutler and Katz, 1991; Slesnick, 1993; Blundell et al., 2008; Meyer and Sullivan, 2008; Heathcote et al., 2010).

The impact of the minimum wage on the distribution of household consumption is not only empirically undocumented but also theoretically ambiguous, as compared to the impact on the distributions of individual wages and household earnings. For simplicity of exposition, suppose, for the moment, that the minimum wage covers all workers in the labor market. Then, raising the minimum wage would push up the wages of workers at the bottom end of the wage distribution and can reduce wage inequality (see Lee, 1999 for the United States; Bosch and Manacorda, 2010 for Mexico; and Kambayashi et al., 2013 for Japan). At the same time, however, raising the

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minimum wage may result in a reduction in employment of low-wage workers as the costs of hiring low-wage workers increase with a rise in the minimum wage (Neumark and Wascher, 2007). In addition, minimum wage workers are not necessarily at the bottom end of the distribution of household earnings, as their spouses may earn a lot more. For these reasons, raising the minimum wage may not have a beneficial distributional effect on household earnings to the extent that it has on individual wages (Card and Krueger, 1995; Neumark and Wascher, 2008). The impact on the consumption distribution is even more ambiguous, since households choose their consumption according to not only their current income but also their expectations about future income (Deaton, 1992).

The adverse effect on employment tends to be more significant in the long term (defined as a few years after the minimum wage increase) because of adjustment costs (Baker et al., 1999). This means that low-wage workers may suffer an increased, if not immediate, risk of losing their jobs. Even if they are able to switch their jobs in the long run, they may suffer an increase in income uncertainty. Thus, the beneficial effect of the minimum wage may be attenuated more for future earnings, and hence consumption, than for current earnings. If one observes the impact on household consumption, the role that the minimum wage can play in improving the living standards of the poor may be limited or perhaps negative. Nonetheless, little is known about the impact on household consumption (Aaronson et al., 2012), and nothing is known about the impact on consumption inequality.

This study examines the impact of large minimum wage changes on the distribution of living standards, as well as on labor market outcomes; further, it quantitatively assesses their impact on household welfare. Since household welfare depends on consumption and leisure, the welfare consequences of the minimum wage are less obvious. Even when minimum wage hikes cause a reduction in demand for low-wage workers, some low-wage workers may enjoy more leisure time without reducing consumption. Thus, raising the minimum wage may result in a welfare gain even in the absence of a rise in consumption due to adverse effects on labor demand. In light of history, the minimum wage has been expanded to protect low-wage workers against sweatshop practices. It is essential to evaluate the welfare gain from raising the minimum wage in terms of leisure as well as consumption. To the best of my knowledge, this study is the first attempt to quantitatively assess the welfare consequences of the minimum wage in terms of changes in consumption and leisure.

There has been growing attention in recent years towards the role of the minimum wage in developing countries (Neumark et al., 2006; Alaniz et al., 2011). There are two important reasons for this. First, since the level of inequality is higher in developing countries, there is a greater need for policies to improve the living standards of the poor and reduce inequality. Second, there is greater variation in minimum wages across regions and over time in developing countries, which is very useful for identifying the impact of the minimum wage.

This study uses panel data from the Indonesian Family Life Survey (IFLS), covering the period from 1993 to 2000, to trace the impact of the minimum wage on household welfare. In Indonesia, the real value of the minimum wage rose sharply in the early 1990s in large part due to international pressure against sweatshop practices, and it fell substantially in the late 1990s due to high inflation caused by the Asian financial crisis. The extent to which the minimum wage was binding differed greatly across provinces as well as over time, because of differences in the statutory minimum wage, wage structure, and industry composition. By exploiting the large variation in the minimum wage, this study estimates the long-term effects of the minimum wage on the distribution of living standards, as well as labor market outcomes. As is common in developing countries, informal employment is widespread in Indonesia. Throughout the analysis, I distinguish between employment in the formal sector and employment in the informal sector. Furthermore, I simulate the welfare effect if there were strict compliance with the minimum wage to understand the influence of non-compliance.

The results obtained point to limitations of the minimum wage as a policy to improve the living standards of the poor and reduce inequality. At the individual level, raising the minimum wage resulted in an increase in wages; however, it also resulted in a reduction in hours of work and formal employment, and these effects varied across time and gender. At the household level, raising the minimum wage resulted in an increase in earnings in the middle and the lower tail of the distribution; however, an increase in earnings led to little increase in consumption in the middle and the lower tail of the distribution. Consequently, the welfare gain resulting from raising the minimum wage was small and attributable mostly to an increase in the leisure of low-wage workers. These findings are complementary to those in MaCurdy (2015), who demonstrate unintended and unattractive distributional effects of the minimum wage caused by an increase in consumer prices under the assumption that raising the minimum wage has no effect on employment or consumption.

The remainder of the paper proceeds as follows. The next section describes changes in the minimum wage and the macroeconomic environment in Indonesia. Section 3 presents econometric models used to estimate the effects of the minimum wage on labor market outcomes and living standards. Section 4 describes the data and samples used in the analysis. Section 5 presents estimation and simulation results. The final section provides a summary and conclusions.

2. Changes in the minimum wage

The minimum wage was first introduced in Indonesia in the early 1970s but was virtually ineffective until the late 1980s. The government introduced new legislation in 1989 and drastically revised the minimum wage, as part of a response to international pressure against sweatshop practices and domestic pressure on the redistribution of gains from economic growth (Rama, 2001). Since then, statutory minimum wages have been set with reference to the cost of a consumption bundle with a minimum daily caloric intake as well as to national and local economic conditions.[1] Until 2000, these

[1] The exact formula is not publicly available during the sample period.