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When workers do not know – The behavioral effects of minimum wage laws revisited

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ABSTRACT

Previous experimental results have shown that the introduction of a minimum wage increases wages in a monopsonistic labor market. The results rely on the assumption that the minimum wage laws are common knowledge among employers and workers, which is often violated in less developed labor markets. This paper examines the effect of asymmetric knowledge about the minimum wage, and its interaction with the level of the minimum wage standard. We find that, whether the workers have knowledge about the minimum wage significantly changes the behavioral impacts of the minimum wage policy. With common knowledge, most firms offer wages beyond the minimum wage level. When workers do not know about the minimum wage policy, many firms, including those who used to pay higher wages before the introduction of the policy, choose to pay wages at the minimum level or lower their offers toward the minimum level. This causes the introduction of the minimum wage not effective in increasing average wages when the minimum wage standard is low. Therefore, a low minimum wage under asymmetric knowledge may potentially have a negative spillover effect on wages. The asymmetric knowledge also affects the employment level negatively. These findings help explain why the impacts of minimum wage are different in labor markets where workers have different degree of information access. This has strong implications for the implementation and welfare impacts of minimum wage laws.

1. Introduction

Minimum wage legislations are widely used in many countries as a way to raise the living standard of low income workers. In emerging market economies like China, new policies are being developed in this area. It is important to understand the implications of these changes for the labor market. This paper focuses particularly on the behavioral effects of the minimum wage policy when workers and firms have asymmetric knowledge about it.

In addition to how the minimum wage affects employment and wages, economists have been particularly puzzled by the spillover effects of minimum wage, that is, when minimum wage increases in a labor market, the wage increase in the market may exceed the minimum level required by the legislature (Card & Krueger, 1994; Falk, Fehr, & Zehnder, 2006; Owens & Kagel, 2010). The experimental study conducted by Falk et al. (2006) provides some insights into these issues. The authors found that workers' reservation wages and fairness concerns are the driving force behind these phenomena. In their experiment, they have workers and employers seek employment contracts between each other first without a minimum wage,

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and then with a minimum wage policy imposed. In their context, fairness means, given a firm's profit function, what is the appropriate offer a firm should give to a worker or the appropriate amount the worker is entitled to receive. When a minimum wage is introduced into the market, the workers' reservation wages increase due to fairness concerns or the entitlement effect induced by the minimum wage reference, even to levels higher than the minimum wage. The firms are thus forced to pay wages higher than the minimum wage.

Much more research is worthwhile to extend the study of Falk et al. (2006) beyond the scope of their design. We examine two issues that, to our knowledge, have not caught the attention of the researchers, the effect of asymmetric knowledge about the minimum wage policy between the workers and firms, and the effects of different levels of minimum wages. The motivations of this study are two folds: one is to test whether the firms' behavior in Falk et al. is due to self-interest or to their own fairness preferences; two is to apply the experiment to conditions that are more likely to be observed in a developing country. Will firms still offer wages higher than the minimum wage (MW) level if workers have no knowledge about the minimum wage policy? If a policy introduces a minimum wage lower than what many firms have already paid, will the firm reduce its wages? While the earlier experiment by Falk et al. suggests that firms increase wages due to expected fairness concern on the part of the workers, their experiment does not rule out the possibility that firms are behaving according to self-interest, or their own fairness preference, or even altruism. If the positive spillover effect found in previous experiments are attributed mostly to the employers' expectation of the increase in workers' reservation wages (RWs), then employers' beneficial offers to workers will be less or nonexistent when workers are not aware of the minimum wage (MW).

While lacking of the knowledge about the minimum wage policy on the part of workers and weak enforcement of the policy may exist in any country (see Ashenfelter & Smith, 1979; Strol & Frank, 2003, for examples), it is more likely to exist in the developing countries. In China, for example, since the scope of its minimum wage policy was broadened in 2004, some studies have shown that many low-income workers, especially migrant workers in China are not well informed about the minimum wage policy and are often not paid to the minimum wage level. Du and Pan (2009) compared the minimum wage coverage of the migrant workers and the local workers using urban labor data in 2001 and 2005. While all workers are legally covered by the minimum wage policy, not being covered by the minimum wage here means that the paid wage is lower than the minimum level due to non-compliance behavior. The percentage of workers whose hourly wage is above that year's minimum wage is 47.8% vs. 78.5% respectively for the two groups in 2001 and 21.1% vs. 44.6% in 2005. This indicates a drop of minimum wage coverage over time for both groups with the rise of the minimum wage standards, with a bigger drop for the migrant workers. They also showed that the ratio of the minimum wage to the average had dropped, from 0.44 in 1995 to 0.28 by 2006. The survey of Han and Kong (2006) in Guangdong province showed that 52.7% (out of a sample of 1760) migrant workers reported that they had never heard of the minimum wage policy, and 69.1% workers said they did not know what their minimum wage actually was. Xie's (2010) survey in Jiangsu province reported that only 24.7% migrant workers knew their minimum wage standard.

The lack of workers' knowledge about the minimum wage policy may help explain the low coverage of the migrant workers. It may have made it easier for the employers not to comply with the standards. The extensive supply of the migrant workers offers the employers with every opportunity for lowering labor standards including wages. The low minimum wage floor may have a negative impact on workers' wages. More of the previous studies on minimum wage policy seem to have focused on the employment effect rather than its distributional effects (Adams & Neumark, 2005). While economic theory with complete competition predicts that raising mandated wage floors will lead to some employment reductions, as stated in Flinn (2006), in the standard monopsony model, minimum wages can lead to higher wages and employment level. Falk et al. (2006) also show that the impact of minimum wage on employment is ambiguous, depending on the magnitude of its impact on reservation wages. Empirically, Wang and Gunderson (2011) studied the impact of minimum wage on employment in China and found that the effects varied for different sectors in which the degree of market pressure varied – consistent with the monopsonistic behavior. While we test the effects of minimum wage policy both on wages and on employment, our focus is more on the wage effects.

The advantages of using the experimental method to study the behavioral effects of minimum wage policy have been illustrated out by a few studies (Charness & Kuhn, 2010; Falk & Fehr, 2003; Falk & Heckman, 2009). It is particularly helpful for our analysis of information asymmetry. Our study will use the similar setting and the same type of subject pool as Falk et al. (2006). We design an experiment in which we manipulate the knowledge of the employers and workers about the MW policy (the INFORM variable). Either both have common knowledge about the MW (INFORMED or INFORM = 1) or only the employers have knowledge about it (UNINFORMED or INFORM = 0). We derive hypotheses to predict that wages are positively related to the minimum wage level, and wages are lower under UNINFORMED conditions. We use a survey to the subjects after the experiment to confirm our analyses. The results of our experiment are consistent with our hypotheses. Wages were higher in the INFORMED conditions and the high-level MW conditions. In the INFORMED treatment, more firms gave offers above the minimum level, but in the UNINFORMED treatment, more firms offered wages only at the minimum level, including many who used to offer wages higher than the minimum level.

As stated earlier, firms' reactions to the minimum wage policy can be due to the concerns for fairness or for self-interest. The introduction of minimum wage may serve as a reference point that shifts the fairness perceptions of firms even without the pressure of the workers. Previous work has proven the power of reference or anchoring effect of even arbitrary numbers (Ariely, Loewenstein, & Prelec, 2003). Firms' initial fairness perception before the introduction of the MW and the reference point of the MW may imply the coexistence of multiple standards. When multiple standards of fairness exist, self-serving bias may drive the fairness perception of the agents (Babcock, Loewenstein, Issacharoff, & Camerer, 1995; Babcock, Loewen-