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executive summary

Wage and Employment Effects of Minimum Wage Policy in the Indonesian Urban Labor Market

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EXECUTIVE SUMMARY

Introduction

During the last two years, the Indonesian Government has vigorously pursued a minimum wage policy. The levels of regional minimum wages have increased very significantly since the crisis. For example, in the Jabotabek (Jakarta, Bogor, Tangerang, Bekasi) area, real minimum wages (wages adjusted to inflation) were increased by around 24 percent in 2000 and between 33 to 36 percent in 2001. The real minimum wages are now already higher than the peak pre-crisis levels.

This was all done against the backdrop of an economy which is still struggling to recover from a severe economic crisis. After a massive economic contraction of 13.7 percent in 1998 and less than one percent economic growth in 1999, the economy grew by around 5 percent in 2000 and various estimates put economic growth in 2001 in a range between 3 to 3.5 - percent. Given this low economic growth environment, there are growing concerns that further large increases in minimum wages may reduce long term economic growth and slow employment growth in the modern industrial sector.

Moreover, starting from January 2001 Indonesia has embarked on a major decentralization policy. With decentralization, the power to determine minimum wages has been transferred from the central to local governments at the province, *kabupaten*, and *kota* levels. There are some early indications that this transfer of power may accelerate an increase in minimum wages in some regions. In addition to the very substantial increase in minimum wages in 2001, the frequency of changes to minimum wages has also increased over the last year. This raises concerns that regional governments may be more willing to cede to the pressures for a more 'populist' approach to social policy. Consequently, there is a danger that long-term economic growth may be sacrificed for short-term unsustainable gains.

As the trend towards greater use of minimum wages as a tool of social policy by local governments gain momentum, the question of whether greater rigidities hurt or benefit the poor in Indonesia are particularly relevant. This study is an attempt to answer one dimension of this question. In this study, the wage and employment effects of minimum

wages are investigated through an econometric approach using pooled data from the National Labor Force Surveys (or Sakernas).

This study differs from previous studies on the labor market effects of minimum wages in Indonesia in several respects. First, both theory and practice suggests that increases in minimum wages do not affect all types of workers in the same way, but primarily those lower paid workers most vulnerable to changes in labor market conditions such as females, youth workers, less educated workers and blue collar workers. Therefore, unlike previous studies of Indonesia, this study estimates the effects of minimum wages on employment of these sub-samples of workers.

Second, a survey of more than 200 workers employed in over 40 firms in Jabotabek was carried out in this study to identify the characteristics of firms that are likely to comply with minimum wage regulations as well as the characteristics of workers that make them more likely to be paid at or above the minimum rate. The findings of the survey corroborate the results of statistical analysis on the effects of minimum wages.

Results of the Statistical Analysis

The study finds that as minimum wages continued to increase during most of the 1990s compliance has also steadily increased, with the result of altering the entire wage distribution of urban, formal workers. In 1988, a year before minimum wage regulations were revamped, minimum wages had very little effect on the wage distribution. But this changed over time. By 1992, the effect of minimum wages on the wage distribution became more apparent. Spikes at and around the minimum wage occurred in the distribution. In 1996, the mode of the wage distribution was only slightly higher than the minimum wage. By 1999 and 2000, the minimum wage had become the mode of the distribution, indicating that minimum wages had become binding for the majority of workers.

The statistical analysis shows that increases in minimum wages push up wages of blue-collar workers. The results of the econometric analysis also show a positive link between minimum wages and average wages of most other groups of workers (female, youth, less educated, and white-collar workers). However, the relationship is not statistically significant. This does not imply that minimum wages have no effect on the wages of individual workers. Instead, it more likely indicates that the effect is mixed. The wages of

some workers are pushed up by minimum wages, while the wages of other workers are depressed, resulting in no significant effect on average wages.

More importantly, the statistical analysis shows that increases in minimum wages does have a negative impact on urban, formal sector employment, except for white-collar workers. For all workers, the estimated elasticity of total employment to minimum wage is -0.112 and statistically significant. This implies that for every 10 percent increase in real minimum wages, there will be more than a one percent reduction in total employment, controlling for other factors affecting employment, such as economic growth and growth in the working population.

Significantly, the negative effects of minimum wage legislation is greatest for those groups that are most vulnerable to changes in labor market conditions such as females, youth workers, and less educated workers, which make up the bulk of those employed in both the formal and informal sectors. For females and youths, the employment elasticities with respect to minimum wages are larger than -0.3 , implying that for every 10 percent increase in real minimum wages employment of these workers fell by more than 3 percent. Similarly, the employment elasticity for less educated workers is relatively large at -0.2 , implying that for every 10 percent increase in real minimum wages employment of these workers fell by around 2 percent.

On the other hand, white-collar workers are the only category of workers to have benefited from minimum wages in terms of employment. Their employment elasticity to minimum wage is 1.0 and statistically significant. This means that for every 10 percent increase in real minimum wage, the employment of white-collar workers increased by 10 percent. This perhaps indicates the substitution effect of minimum wages on the employment of different types of workers. As the level of minimum wages is increased, firms reduce the employment of the other types of workers and replace them with white-collar workers. This may be due to firms substituting more capital and skill-intensive production processes in place of labor-intensive processes in response to increases in minimum wages. Due to capital-skill complementarity, a higher proportion of white-collar workers suggests that more capital-intensive technologies have been used.

Furthermore, there is evidence that compliance with the minimum wage regulations has continued to increase since the mid-1990s. The results of the econometric analysis show

that a higher degree of compliance tends to strengthen the positive effect of minimum wages on average wages and the negative effect on employment.

Results from the Survey of Workers and Firms

The findings from the qualitative survey corroborate the econometric analysis. The survey shows that the characteristics of particular firms play an important role in determining the degree of compliance with minimum wage regulations. In general, firms in the capital-intensive sectors pay higher wages and, hence, demonstrate a higher degree of compliance with minimum wages than firms in labor-intensive industries. The size of the firm is an important determinant of compliance. In general larger firms are more likely to pay higher wages and, hence, comply with minimum wage regulations than smaller firms. Foreign-owned firms in general pay higher wages and also comply more effectively with the minimum wage regulations compared with domestic firms. Finally, firms that sell their products to the export market are, on average, paying higher wages and comply more with the minimum wage regulations than those firms that solely target the domestic market.

However, these findings for capital-intensive firms, foreign firms and exporters primarily arises because these firms fall into the large-size category in the sample. The study estimated a probit model which ascertains the probability that a certain worker will be paid above the minimum wage rate. The probit analysis shows that firm size is the primary determinant of a firm's capacity to comply with minimum wage regulations. Controlling for all other firm and worker characteristics, workers in medium sized firms have 21 percent higher probability being paid above the minimum wage than workers in small firms. Similarly, workers in large firms have 44 percent higher probability of receiving wage above the minimum wage than workers in small firms.

In addition, the characteristics of workers employed in individual firms also affect the degree of compliance with the minimum wage regulations. Male workers on average are paid higher than minimum wages and fewer of them receive wages below the minimum compared with female workers. The commonly found U-inverse relationship between age and wages is also evident. Wages initially increase with age, but then decrease again for those in the older age groups. Education is also an important determinant of wages. Workers who have at most a junior secondary education level on average are paid near the minimum wage. The relationship between work experience and wages is positive.

However, the probit analysis identifies gender as the main variable which influences whether workers are paid above the minimum wage rate. Controlling for all other firm and worker characteristics, female workers have a 19 percent lower probability of being paid above the minimum wages compared with male workers. Thus, both firm and worker characteristics jointly determine the probability of a worker being paid at or below the minimum wage rate.

Finally, the qualitative survey found that the type of employment contract, which reflects the working relationship between a firm and its employees, also has important consequences for the welfare of the workers. Daily casual (*harian lepas*) workers have an average wage at about the minimum wage levels and around 44 percent of these workers are paid lower than the minimum. In contrast, monthly permanent workers were generally paid higher wages compared to any other category of workers.

According to firm respondents, the way in which the minimum wage policy has been implemented in recent years has created several constraints to firm growth as well as employment growth in the modern sector. This policy has also been a major cause of industrial strife. Before the crisis, minimum wages were determined annually. Recently, however, minimum wage levels have been changed more than once in a year in several provinces/regions, creating problems for the planning and cash-flow of these companies. In addition, this has also caused difficulties for those firms that have signed contracts with buyers. The calculation of costs had not factor in unexpected changes in minimum wages, contributing to unexpected falls in profits.

The binding nature of minimum wages also seems to have reduced worker incentives to raise productivity. Since the late 1980s minimum wages have increased rapidly, to the point where the minimum wage has become the binding. It is close to, or equal to actual wages, particularly in the case of medium and small size firms. All unskilled and semi-skilled workers in these firms now receive roughly the same wage level, i.e. the minimum wage. As a consequence, this has limited the capacity of firms to use wages as an incentive system to promote workers' productivity. There is a concern that this also creates a disincentive for those workers who are more productive, resulting in a decline in overall productivity within these the firms.

The impact of minimum wages on firms differs across sectors. The largest impact, of course, is in the most labor-intensive sectors. Firms, however, have little choice than to comply with the regulations, even when they are actually finding it difficult to pay wages at this level. The costs of non-compliance are envisaged to be even greater due to the prospect of industrial strife. In theory, the regulations provide an opportunity for those firms that are having difficulties in complying with the minimum wage regulations to request a temporary waiver. However, the requirements for obtaining this waiver are difficult to fulfill and costly, including an audit by a public accountant. Firms reported that non-compliance tended to provoke protests and strikes by workers, disrupting production and resulting in delays in product deliveries to customers.

A combination of troubled industrial relations and greater labor protection in recent years have become a concern for many firms. Not only are firms pressured to comply with the minimum wage regulations. They are also having difficulties in retaining their workers, especially since the generous compulsory severance payments induce workers to quit over minor disagreement with management. To overcome these problems, some firms have opted to change their hiring system, in particular by relying more on piece-work arrangements.

Conclusions

To conclude, the results of this study show that minimum wages benefit some workers and disadvantage others. Workers that keep their factory jobs clearly benefit from increases in minimum wages. White-collar workers are clear winners from a vigorous enforcement of minimum wage policy. However, those that lose their jobs as a result of increases in minimum wages are losers from minimum wage policy. The potential losers are those workers most vulnerable to changes in labor market conditions such as female and youth workers and less educated workers.

In a environment of high economic growth, large increases in minimum wages are less of a problem since growth place upward pressure on wages at or above the minimum and can create more jobs than those lost through minimum wage policy. However, in an environment of low growth as in Indonesia in 2000-2001, big increases in minimum wages is most likely to have a detrimental effect on those workers most vulnerable to changes in labor market conditions. A vigorously pursued minimum wage policy, which pushes wages well above the productivity of vulnerable groups, will certainly have a detrimental effect

on these groups. The qualitative survey also indicates that substantial increases in minimum wages will disadvantage small and medium sized firms, as they are the ones which can least afford increases in their cost structures.

These findings may have implications for the government's poverty reduction program. A vigorously implemented minimum wage policy will help those more productive workers that are able to keep their jobs in the modern sector. But these workers are less likely to be among those living below the poverty line. Indeed, most research shows that the poor are found among those in the urban informal sector and the rural sector. If the policy reduces employment growth in the modern sector below the growth in the working population, more unskilled workers may be forced into inferior jobs in the informal sector.

Thus, the impact of minimum wages on employment in the modern sector is only part of the story. Their impact is perhaps equally important, if not more, on the welfare of workers in the informal sector, which accounts for the bulk of the workforce in Indonesia. An important area for further research is to assess the impact of the labor displacement effects of minimum wages in the modern sector on real earnings in the informal sector.