Does an Increase in Social Insurance Payments Affect Firms' Decisions? Evidence from Vietnam

Problem statement

The compulsory social insurance (SI) system in Vietnam has undergone considerable changes in recent years. The policy on increasing social and health insurance contribution rates has attracted much debate. From the firm's perspective, social and health insurance contributions are essentially indirect labour costs. Thus, an increase in mandatory contribution rates may create a new burden for employers. Firms may respond in various ways such as by cutting wages, limiting employment security or downsizing the workforce. If the cost burden of SI policy is sufficiently large, the effectiveness of social protection would be weakened. This study explores the impacts of the changes in compulsory SI policy on state-owned enterprises (SOEs) and private sector firms in the country.

Methodology and data

The study uses panel data from Vietnam's Enterprise Census conducted annually by the General Statistics Office, from 2006 to 2013. The surveys provide good information on firms' characteristics, number of workers, types of firms, labour scale, total wages fund, total SI contributions and labour union fees. After data cleaning and checking the consistency of time-invariant variables between the eight surveys, a strong balanced panel of 2,838,664 observations over eight years was achieved for the purpose of our analysis.

Both descriptive and econometric analyses were undertaken to seek evidence of the impact of higher SI contributions on labour demand and average wage paid by firms. The econometric analyses used two basic models developed by A. Kugler and M. Kugler (2003). These econometric models include single independent variables and fixed effects equations. The independent variable of the ratio of the firm's total SI contributions over the total wage fund helps to gauge the impact of SI on employment as labour demand and on wages as the price of labour. To consider the effects of other factors on firms' wage and employment levels, both models were modified to include the following variables: ownership (SOE, private, foreign direct investment), industry (footwear, textiles and garments, other), firm size (number of workers: <10, 10–50, 51–100 and >100) and employee gender.

Results

For all enterprises: Review of the literature shows that firms, especially private sector firms, react to increases in SI contributions in different

Prepared by Nguyen Thi Kim Dung and Ngo Minh Tuan, senior researchers from the Central Institute for Economic Management (CIEM), and Do Son Tung, researcher from the Vietnam Institute of Economics (VIE).

ways. Apart from cutting wages and keeping fewer workers under compulsory SI policy, tax fraud and underreporting of wages commonly prevail. Given the big change in government policy introduced in January 2016, particularly the change in the assessment base for calculating SI contributions (which requires a larger contribution from both employers and employees), these undesirable practices may become more widespread in the coming years.

The empirical estimation results show that the average wage per firm and the ratio of the firm's total SI contributions over the total wage fund are negatively correlated: a 1 percent increase in the firm's total SI contributions would result in a 0.16 percent drop in average wages. The average number of workers per firm and the ratio of the firm's total SI contributions over the total wage fund are positively correlated: a 1 percent increase in the firm's total SI contributions would generate a 0.039 percent rise in the average number of workers. These correlations also hold true for industry, ownership, firm size and employee gender.

By ownership: The impact of the increase in SI contributions on average wage per firm is stronger in the state-owned sector than in the non-state sector. A 1 percent rise in SI contribution rates results in a 0.181 percent fall in average wages in SOEs but only a 0.023 percent fall in private sector firms and a 0.098 percent fall in FDI sectors. The impact on labour demand also varies slightly between ownership sectors. A 1 percent increase in SI contributions would result in a 0.011 percent increase in the labour demand of private sector firms, but a 0.027 percent decrease in the employment level of SOEs.

By industry: The estimations show that the average wage rate in all three industries studied is negatively affected by higher SI contributions. However, the impact is significantly higher in the shoe industry than in textiles and garments, and "other" industries. Regarding labour demand, a 1 percent increase in the ratio would result in a 0.390 percent increase in employment in the shoe industry and a mere 0.038 percent increase in employment in the textile and garment sector.

By enterprise size: An increase in the ratio of SI contributions in the total wage fund negatively affects the average wage in all firm-size categories. However, the impact for smaller enterprises is larger. The largest impact is found in micro businesses, where a 1 percent increase in the ratio of SI contributions in the total wage fund would result in a 0.018 percent reduction in the average wage per firm. The extent of this impact lessens as firm size increases, with a wage reduction of only 0.010 percent in enterprises of over 100 workers. At the same time, an increase in SI contributions positively affects labour demand in the two groups of smaller-scale enterprises (microenterprises and those with 10–50 workers. While the level of impact appears greater for these two categories, it decreases as the size of the enterprise increases. For micro enterprises, a 1 percent increase in the ratio of SI contributions would cause a 0.517 percent increase in labour demand; and for firms with 10–50 workers, it would cause an increase of only 0.033 percent. The coefficient for the group of enterprises with 50–100 workers is very small; and for enterprises with over 100 workers, the coefficient of variation is insignificant.

By gender: Overall, the coefficient of the ratio of SI contributions in the total wage fund of all firms is found to be statistically significant at the 1 percent level. However, the magnitudes are very small, showing the minor extent of impact. This suggests that, in the event of increase in SI contributions, this factor would barely affect the average wage per firm.

Discussion of findings

In sum, Vietnam's SI policies have different impacts on the average wage and labour demand in different firms. While the impact on employment is found to be insignificant, an increase in SI contributions is proved to affect labour prices. The impact differs by ownership, industry, firm size and employee gender. As the population of Vietnam is aging, the SI fund needs to be supplemented and SI contributions will therefore need to be adjusted accordingly. Apart from positive impacts, the policy to increase SI contributions could have several undesirable or even adverse effects on employment and on firms in different sectors. Firms tend to shift the costs of higher SI contributions to workers by lowering wages or even by evading tax. These practices could lead not only to erosion of the SI fund, but also to deterioration of the financial situation of workers. Therefore, any policy change should be well thought out and consider the results of more accurate policy analyses and evaluations.

Policy recommendations

To identify optimal SI contribution levels and secure the viability of the SI system, the following recommendations are proposed:

Understand the economy-wide efficiency of SI policy. The average wage per firm in all enterprise categories is negatively correlated with the ratio of a firm's total SI contributions over the total wage fund (although the extent of impact is not very large). SI contribution rates should therefore not be raised so much that enterprises react by using lower-skilled (lower-paid) workers. This might lead to a decrease in labour productivity.

Pay close attention to state-owned enterprises. Although the average wage per firm is negatively affected by an increase in SI contributions in all ownership categories, this impact is stronger in SOEs. Therefore, any increase in SOEs' SI contributions should be carefully considered.

Keep intervention in the labour market to the minimum necessary. Although the impact of SI policy on labour demand is seen in all three ownership sectors, the magnitudes of impact are minimal. This suggests that SI contributions are not a major factor affecting labour demand in all firms. Thus there is no significant pressure for the government to use SI policy to influence labour demand in any particular ownership sector.

Focus SI policy on industrial development priorities. The impact of SI policy on average wage per firm is found to be significantly higher in the shoe industry than in textile and garments and "other" industries. This indicates that SI policies may have different effects on different industries even if they are all labour-intensive. The government can therefore rely on its industrial development priorities to adjust SI policy towards achieving desired policy targets.

Calibrate SI contributions carefully by firm size. The impact of SI contributions on firms' labour demand is found to be larger in small enterprises (micro and 10–50 workers). This effect should be seriously considered when setting overall policy for small-scale enterprises. Even so, the effect should not be overestimated to prevent adverse impact on wages through the possible negative reactions of employers.

Consider gender equality requirements carefully. As the results show, firms with different shares of female workers do not exhibit significantly different wage setting or labour recruitment behaviours. Before setting new SI policy, gender equality stipulations (e.g. increasing up female workforce participation rates) for labour-intensive industries should be carefully thought out.

Reform and strengthen SI compliance and enforcement. Tax fraud and underreporting of wages is found to be widespread among firms. In order to increase participation and ensure the SI system's viability, SI policy reform should be combined with measures to reform complementary policies in other areas. If employees are not aware of their legal rights and employers simply do not respect the law, then law enforcement should be strengthened and public information campaigns conducted more frequently. Close cooperation with the Tax Inspectorate could help significantly in this matter.

References

Kugler, Andriana, and Maurice Kugler. 2003. *The Labor Market Effects of Payroll Taxes in a Middle Income Country: Evidence from Colombia.* CEPR IZA Discussion Papers 852. Bonn: Institute for the Study of Labor.

Nguyen, Thi Kim Dung, Ngo Minh Tuan and Do Son Tung. 2019. "Labour Market Effects of Mandatory Social Insurance Policy: Some Evidence from Vietnam" In *Job Prospects for Youth, Low-Skilled and Women Workers in the Greater Mekong Subregion,* edited by Vathana Roth. Phnom Penh: CDRI.