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Setting Adequate Wages

Impacts of minimum wage in Viet Nam

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Preface

In Viet Nam, the issue of low wages continues to affect many workers. While average nominal wages have grown in recent years, real wages remain low once inflation is taken into account, underscoring the importance of minimum wage in protecting workers' living standards.

In response to this challenge and a National Wage Council request, the International Labour Organization took the lead in conducting this research report to assess the wide-ranging impacts and effectiveness of national statutory minimum wage rates since their establishment based on a tripartite social dialogue in 2013.

This study employed a mixed-methods approach, combining quantitative analysis of Labour Force Surveys and the Viet Nam Enterprise Census with qualitative interviews with workers, employers, and worker representatives. The findings reveal that while Viet Nam has a relatively low rate of workers earning below the minimum wage, certain groups – such as female, older, and less-educated workers – remain vulnerable. Compliance also varies across sectors and regions, with household-employed workers facing the highest risks.

Importantly, the research shows that minimum wage adjustments have not significantly affected employment levels or firm performance, but they do influence labour costs, competitiveness, and workers' access to social insurance. These insights highlight the need for wage-setting mechanisms that balance workers' needs with economic realities.

Based on these findings, the report presents key policy recommendations, including the establishment of a transparent and predictable roadmap for minimum wage adjustments, stronger inflation control to ensure real income gains, integration of minimum wage policy with broader socio-economic measures, and the enhancement of collective bargaining mechanisms.

We hope this report will serve as a valuable resource for national stakeholders, especially the National Wage Council, in strengthening wage-setting processes. By providing evidence-based analysis, the study aims to support more transparent, predictable, and fair minimum wage adjustments that contribute to decent work, sustainable business development, and inclusive economic growth in Viet Nam.

Finally, we would like to express our sincere gratitude to the workers, employers, and worker representatives who participated in this study, as well as to the National Wage Council, government agencies, and all stakeholders who provided invaluable support throughout the research process. Their contributions made this report possible.

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The research was led by Mekong Development Research Institute (MDRI) with contributions from Dr Nguyen Viet Cuong (Vice Director of MDRI and an independent member of the National Wage Council (NWC) of Viet Nam), Pham Thi Thien Quynh, and Pham Thi Giang.

This research was made possible through the collaboration and support of Viet Nam's Ministry of Labour, Invalids and Social Affairs (now Ministry of Home Affairs). The report significantly benefited from thorough reviews and inputs by Nguyen Huyen Le, Head of the Wage Division, and other members of the NWC technical support team.

Gratitude goes to government, employer and worker representatives who contributed to the report's preparation from the outset and who provided rich inputs at the tripartite consultation meeting on 19 November 2024 in Hanoi.

On the ILO side, key technical inputs were provided by Wage Specialists Xavier Estupiñan and Elva López Mourelo. Other colleagues from the ILO Office in Hanoi also helped develop this report – particularly Felix Weidenkaff, Nguyen Ngoc Trieu, Vu Thuy Lien, Vu Kim Hue and Dang Diep Anh – along with the abundant support and guidance from Ingrid Christensen, Former Director and Sinwon Park, Director of the ILO Country Office for Viet Nam.

An external consultant, Simon Drought, edited and proofread the English language report. The Vietnamese version was edited and proofread by Nguyen Thi Thanh Thao.

This report was developed under the framework of the "Setting Adequate Wages" project, a technical cooperation initiative with support from the Ministry of Foreign Affairs of the Netherlands.

It is important to note that the content of this report uses data until 2024 and reflects the institutional, administrative and provincial structures in place prior to government restructuring that took effect from 1 March 2025 and subsequent provincial restructuring.

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▶ Abbreviations

FDI	Foreign direct investment
NSO	National Statistics Office (former General Statistics Office) - Viet Nam
ILO	International Labour Organization
LFS	Viet Nam Labour Force Survey
MOHA	Ministry of Home Affairs - Viet Nam
MOLISA	Ministry of Labour, Invalids and Social Affairs - Viet Nam
MW	Minimum wage
NWC	National Wage Council
OLS	Ordinary Least Squares
PPP	Purchasing Power Parity
SOE	State-owned enterprise
TFP	Total factor productivity
VEC	Viet Nam Enterprise Census
VHLSS	Viet Nam Household Living Standards Survey
VND	Viet Nam Dong

▶ Executive summary

In Viet Nam, the issue of low wages continues to affect many workers. While average nominal wages registered relatively high growth in recent years, they remain low when real wages are calculated and compared. Minimum wage, therefore, play a crucial role in addressing the pressing issue of low pay for Vietnamese workers. In response to this challenge and upon a request from the National Wage Council (NWC), the International Labour Organization (ILO), in collaboration with the Department of Industrial Relations and Wages of the Ministry of Labour, Invalids and Social Affairs (now Ministry of Home Affairs), took the lead in conducting landmark research to assess the wide-ranging impacts and effectiveness of national statutory minimum wage since its establishment based on a tripartite social dialogue mechanism in 2013.

In this study, the impact of minimum wage on a wide spectrum of outcomes for workers and firms in Viet Nam is examined using a mixed-methods approach, combining a desk review and quantitative analysis based on Labour Force Surveys (LFSs) and the Viet Nam Enterprise Census (VECs), with qualitative interviews with workers, employers and workers' representatives.

This research, by exploring LFS data, reveals that Viet Nam has a relatively low rate of workers earning below the minimum wage. In 2023, some 3.8 per cent of those working at least 35 hours per week earned below the monthly minimum wage, while 3.3 per cent earned less than the calculated hourly minimum wage. Female, older, and less-educated workers are more likely to earn below the minimum wage. Household-employed workers experience the highest rates of non-compliance with the minimum wage, while those in foreign direct investment (FDI) and private firms experience the lowest. Geographically, the presence of workers earning below the minimum wage was most common in the Central Highlands and Mekong River Delta, as was the case in the agriculture, food services, and beverage manufacturing sectors.

Quantitative analysis using labour force and firm-level data from 2012 to 2023 proves that minimum wage have no significant impact on employment status, hours worked, or company performance indicators such as turnover, profits, or labour size. This outcome may stem from the relatively low level of minimum wage compared to prevailing market wages.

Nevertheless, the qualitative findings suggest that both employers and workers do adjust their behavior in response to minimum wage increases. Companies reported that minimum wage increases also raise labour and social insurance costs, indirectly impacting material expenses and reducing competitiveness, particularly in labour-intensive industries. In response, firms can invest in technology, reduce non-essential costs or consider relocating to areas with lower minimum wage. From workers' perspectives, the respondents imply that minimum wage increases may offer modest income gains, but prevailing wage levels often remain insufficient to meet the cost of living. The most tangible benefit for workers is increased social insurance contributions, which enhances long-term entitlements. Additionally, wage adjustments may facilitate more efficient collective bargaining, particularly with active engagement from the workers' side.

Overall, the qualitative findings reveal a range of adjustment mechanisms and responses among employers and workers. However, these effects appear either small in magnitude or limited in scope to generate measurable changes in aggregate indicators of employment and business performance at the economy-wide level.

In response to these findings, the study presents three main policy recommendations. First, minimum wage adjustments should follow a transparent and predictable roadmap, balancing workers' needs and economic factors. Second, controlling inflation is crucial to ensure that nominal wage rises translate into real income increases for workers. To benefit firms, the minimum wage policy should be effectively integrated with broader socio-economic policies, such as improving the business environment. Finally, enhancing collective bargaining mechanisms will help align minimum wage policies with broader labour and business goals, increasing the effectiveness of wage-setting mechanisms.

1 Introduction

▶ 1. Introduction

The primary purpose of minimum wage is to protect and enhance the living standards of workers, particularly the low pay groups. To explore the impact of minimum wage, numerous studies globally have found that minimum wage increases help boost household income and workers' wages, especially for low-income groups, thereby reducing wage inequality (Del Carpio et al. 2013, Hansen et al. 2016, Dube 2019; Saltiel and Urzua 2020, Nguyen 2024). However, higher minimum wage may also increase labour costs, potentially reduce labour demand and create burdens for employers. Empirical studies provide mixed evidence on the impact of minimum wage rises on employment, with several finding they lead to higher unemployment, while others saw no significant effect (Broecke et al. 2017, Neumark 2018, Martínez and Martínez 2017, Dube and Lindner 2024).

Setting adequate minimum wage is crucial to protect workers, while also avoiding unemployment. The ILO's Global Wage Report 2024–25 indicates that although numerous nations adjusted minimum wage levels in 2022 and 2023 as part of post-pandemic responses, this did not adequately counterbalance the increased costs of living for minimum wage earners. Thus, further rigorous adjustments to minimum wage are essential to protect the purchasing power of low-wage workers, while also considering economic factors and potential impacts on businesses (ILO 2024b).

In Viet Nam, minimum wage adjustments commonly spark debate on impacts on low-wage workers and company performance. Such discussions among tripartite partners – who are national representatives of workers, employers and the government – revolve around concerns on company performance and whether businesses can both afford and adhere to minimum wage rises. While several studies have explored minimum wage impacts on employment in Viet Nam (Hansen et al. 2016, Nguyen, C. 2011, 2013, 2017, 2023, Phan 2017, Nguyen, X. D. 2019, 2021a, 2021b), most reveal negligible or small negative impacts on employment and wages. It is important to note that previous minimum wage studies relied on pre-COVID-19 pandemic data, which do not capture recent changes in Viet Nam's economy and labour market dynamics. While minimum wage effects change over time depending on growth rates as well as the elasticity of labour supply and demand, against the backdrop of insignificant adjustments in recent years, it is critical to examine minimum wage impacts on the labour market and company performances with updated data to paint a more complete picture.

Upon a request from the NWC, the main objective of this study is to examine the impact of minimum wage on a wide range of outcomes of workers and firms in Viet Nam. Specifically, the study has two key objectives to assess minimum wage impacts on: (i) employment and wages of workers and (ii) labour demand and business performance of firms. Besides these two focus areas, minimum wage adjustment impacts on wage negotiations between workers, or their representatives and employers are also explored, specifically whether these adjustments trigger changes in wage negotiations to reveal how minimum wage can impact workers' incomes through wage bargaining. To achieve these objectives, a mixed-methods research approach was employed, comprising a desk review, quantitative and qualitative methods. The quantitative analysis relies on regression methods and data from Labour Force Surveys (LFS) and the Viet Nam Enterprise Census (VEC), while the qualitative analysis includes in-depth interviews with workers and firm representatives. Relevant stakeholders and beneficiaries were also engaged in the participatory process to identify key findings, conclusions, and recommendations to guide future research.

Importantly, three key aspects differentiate this study from previous research on minimum wage impacts in Viet Nam. First, more recent data encompassing the pandemic allow for

a more cognizant analysis of minimum wage impacts during and following the health crisis and subsequent economic shocks. Second, the effects of minimum wage are examined not only on individual employment and wages, but also on company performance. Third, a mixed-methods research approach including quantitative and qualitative methods was employed. The quantitative analysis, which relies on nationally representative datasets, provides estimates of minimum wage impacts at the national level. As it may not capture all relevant outcomes, such as firm and worker perceptions of minimum wage relevance, the qualitative approach offers a more in-depth assessment of the processes and broader impacts of minimum wage. By examining both workers' and companies' perspectives, a more comprehensive assessment of minimum wage impacts in Viet Nam could be realized.

This report comprises six chapters. Following the introduction, the second chapter presents a literature review of studies examining the impacts of minimum wage, with a focus on Viet Nam. The third chapter provides an overview of minimum wage and statistics in Viet Nam, while the fourth and fifth chapters outline the research methods and empirical findings. Finally, the sixth chapter summarizes the main findings and provides several recommendations for minimum wage policies in Viet Nam.

2

Literature review

▶ 2. Literature review

The issue of minimum wage has attracted considerable attention from economists globally, with numerous studies examining its impact on employment. The findings are mixed. Some studies found that minimum wage increases lead to higher unemployment, while others saw no significant effect on employment (Broecke et al. 2017, Neumark 2018, Martínez and Martínez 2017, Dube and Lindner 2024). Evidence on company performance, however, is more limited. Some studies showed that minimum wage rises reduced firm profitability, as seen in the United Kingdom (Draca et al. 2011) and Portugal (Alexandre et al. 2022), while others found no significant effect on company profitability (Pacheco & Naiker 2006, Harasztosi and Lindner 2019). Riley and Bondibene (2017) reported that minimum wage boosted labour productivity among firms in the United Kingdom.

Against this international backdrop, this chapter reviews studies on minimum wage impacts in Viet Nam. With the majority of research using quantitative methods and secondary data from household and company surveys, several studies examined minimum wage increases on employment. Using data from the Viet Nam Household Living Standards Survey (VHLSS) from 2004 to 2010, Nguyen (2013) and Del Carpio et al. (2013) did not find significant effects on employment from minimum wage increases. However, minimum wage hikes tended to shift low-wage workers from the formal sector to self-employment, with wage workers likely to lose jobs and engage in self-employment. On the other hand, using LFS data from 2013 to 2018, Nguyen (2023) found that while minimum wage do not impact total employment, they tended to increase the share of wage workers. Higher minimum wage attract more inactive individuals into wage employment, but do not affect self-employment. Consequently, minimum wage lead to a higher share of wage workers. The differences reported in minimum wage impacts on wage and self-employed jobs between Nguyen (2013), Del Carpio et al. (2013) and Nguyen (2023) may be due to differences during the study period. The first two relied on VHLSS data from 2004–10, while the latter used LFS data from 2013–18.

Impacts on wages and household income also came under the spotlight. Using LFS data from 2011 to 2013, Hansen et al. (2016) found that minimum wage tended to raise income for low-wage workers, thereby reducing wage inequality within the formal sector. In contrast, based on LFS data from 2012 to 2020, Nguyen (2024) found that minimum wage rises had no significant impacts on monthly wage earnings, while minimum wages reduced hours worked and led to increased hourly wage earnings. Specifically, a 1 per cent rise in the minimum wage corresponded to a 0.32 per cent increase in hourly earnings. Using VHLSS data from 2006–10, Del Carpio et al. (2013) showed that minimum wages helped boost household per capita income and consumption, with a 1 per cent minimum wage increase reducing the likelihood of household poverty by 0.089 percentage points.

Regarding company-level outcomes, several studies examined the impact of minimum wage on performance. Nguyen (2017a), using VEC data, found that a 2005 minimum wage increase had an insignificant impact on the profitability of private firms in Viet Nam. Similarly, using VEC data from 2008 to 2010, Nguyen (2017b) also found minimal impacts on company profitability, despite minor negative and positive impacts on employment and fixed assets, respectively. More recently, sourcing the Viet Nam Small and Medium Manufacturing Enterprise Survey from 2011 to 2015, Nguyen (2019) found that a 1 per cent increase in the minimum wage resulted in a 0.28 per cent rise in labour productivity (measured by value added per employee) and revenue per employee, despite no significant impacts on profit. Nose (2020), examining the impact of 2011's minimum wage increase using VEC data from 2006 to 2016,

revealed that higher marginal costs from the wage increase reduced firms' workforce sizes by 3.1 per cent, profit margins by 3.2 percentage points, and total factor productivity (TFP) by 1.2 per cent on average.

The heterogeneous effects of minimum wages by gender were explored in several studies. Nguyen (2017b) discovered that minimum wage reduced the share of male workers in firms, with the opposite true for female workers. Similarly, Nguyen (2021), analyzing VEC data from 2011 to 2015, showed a positive association between minimum wage and female employment, with the trend most significant in automotive and engineering manufacturing and least significant in textile, garment, and footwear manufacturing. This positive effect is also stronger in firms with higher productivity, a higher proportion of female labour, and higher overall wages. However, using LFS data, Nguyen (2024) saw no statistically significant gender differences in minimum wage impacts on employment and wages.

Qualitative research on minimum wage impacts in Viet Nam is limited. Oxfam (2019) conducted a study on wages and employment in Viet Nam's fashion supplier sector, revealing reported shortcomings in national minimum wage regulations. The statutory minimum wage was found to fall significantly short of covering workers' essential needs, such as food, housing, healthcare, and education. This reported gap is revealing, given that Article 91 of Viet Nam's 2019 Labour Code mandates the minimum wage should "ensure the minimum living standards of the workers and their families, in accordance with socio-economic development conditions". Oxfam (2019) also highlighted that the average minimum wage for garment workers in Viet Nam was only 64.1 per cent of the Global Living Wage Coalition's estimate and 37.3 per cent of the Asia Floor Wage Alliance's recommended level.

3

Minimum wage in Viet Nam

▶ 3. Minimum wage in Viet Nam

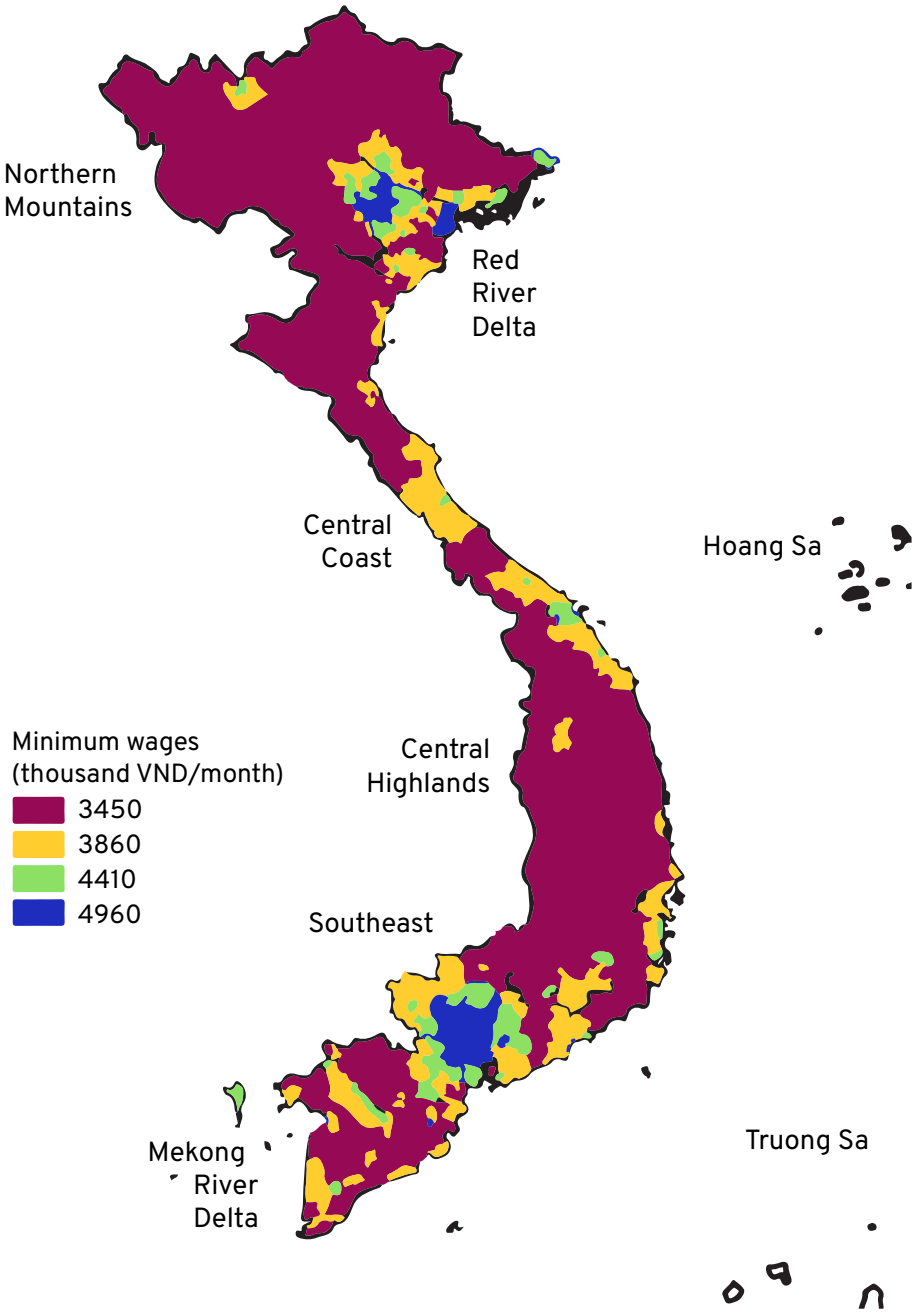
Viet Nam's minimum wage is designed to protect the most vulnerable workers and is a key policy instrument for promoting inclusive growth. The minimum wage has evolved significantly, initially applied mainly to state-owned enterprises (SOEs) and public sector workers, but subsequent reforms progressively extended coverage to the private sector, reflecting the country's commitment to inclusive and sustainable development. According to Viet Nam's 2019 Labour Code, "The minimum wage is the lowest paid to workers performing the most basic jobs under normal working conditions, intended to ensure a minimum standard of living for workers and their families, in alignment with socio-economic development conditions". While the minimum wage is primarily determined on a monthly basis, in 2022, the government also introduced an hourly minimum wage rate, calculated by dividing the monthly minimum wage by the typical number of hours worked per month on average (208 hours per month). Minimum wage in Viet Nam are to be applied to all waged employees, including domestic workers. The monthly minimum wage encompasses all groups of workers with full-time employment in a calendar month. The hourly minimum wage is applied to workers in part-time or temporary jobs.

Viet Nam's minimum wage are commonly adjusted annually based on different factors, with the involvement of tripartite partners at the central level. According to domestic law, minimum wage in Viet Nam are adjusted based on the minimum standard of living of workers and their families. Besides, the minimum wage determination is also based on market wages, the Consumer Price Index, economic growth rate, labour supply and demand, employment, labour productivity and the ability to pay of employers.

Since 2008, minimum wages have been set by the government that reflect four wage levels based on differences in living costs of geographical localities at the district level. Minimum wage rates were bound by around 700 districts of 63 provinces. However, since July 2025, following the national restructuring of administration units, the base of minimum wage rates in Viet Nam was replaced by communes. As this report's assessment is based on the national context and data until 2024, districts were used as the administration unit for determining applied minimum wage rates.

Minimum wage rates vary across districts according to each zone's economic level. Provincial People's Committees submit a list of their districts to the government, categorized into four levels equivalent to the four minimum wage zones. The list of districts in the four minimum wage zones is also adjusted over time depending on the economic development of the districts. Minimum wage levels and the list of districts for each minimum wage zone are specified in government decrees on minimum wage. Figure 1 presents the geographic map of districts by minimum wage levels.

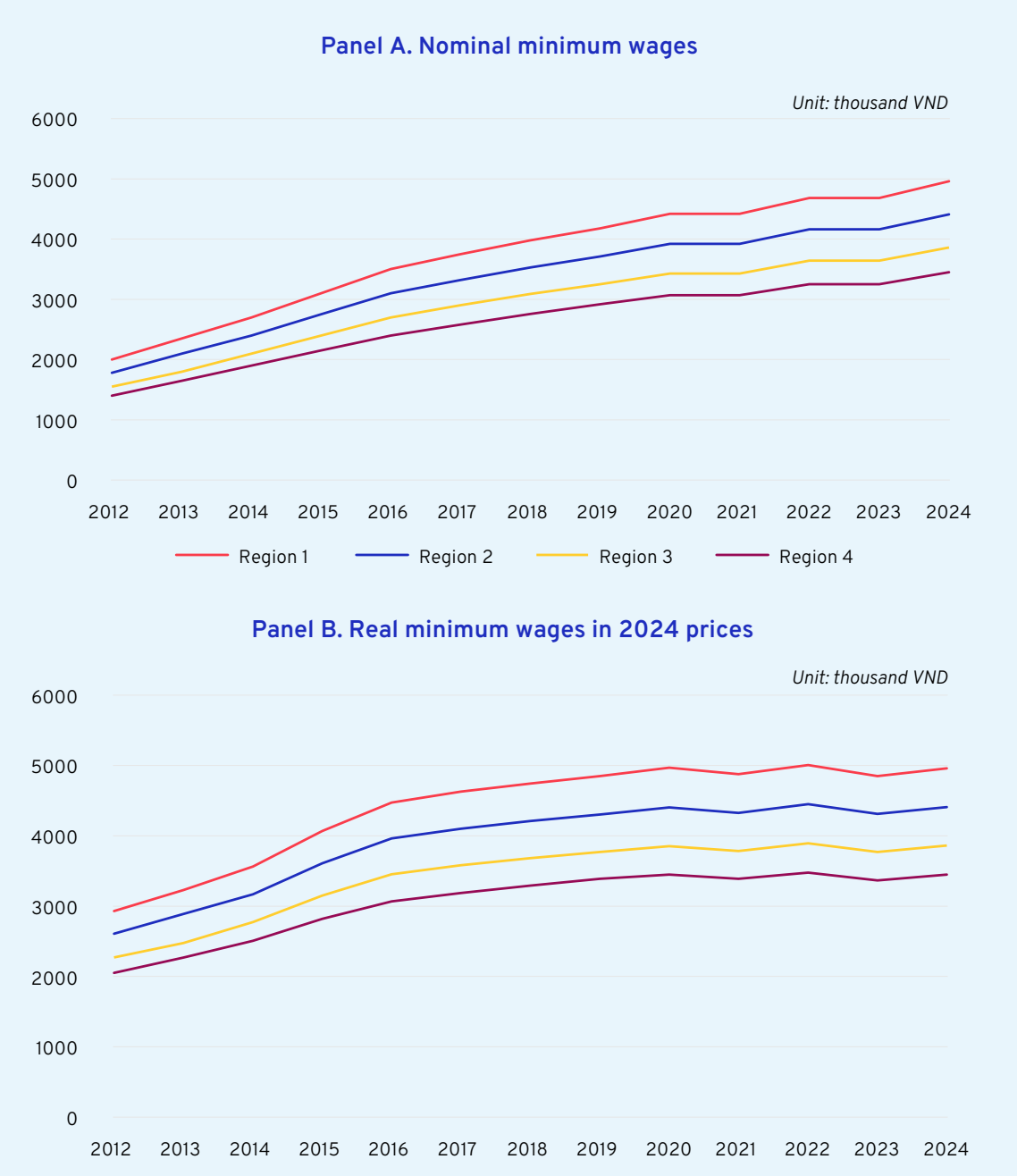
▸ **Figure 1. Minimum wage rates by district (2024)**



Source: Authors' illustration based on Decree 74/2024 ND-CP on minimum wage.

Figure 2 shows the nominal and real minimum wages across the four zones from 2012–24. During 2012 to 2020, the nominal minimum wage increased at a pace exceeding inflation. However, due to the COVID-19 pandemic, minimum wage adjustments primarily aimed to offset inflation, leading to limited increases in real minimum wages during the 2021-2024 period.

▶ Figure 2. Minimum wages during 2012–24



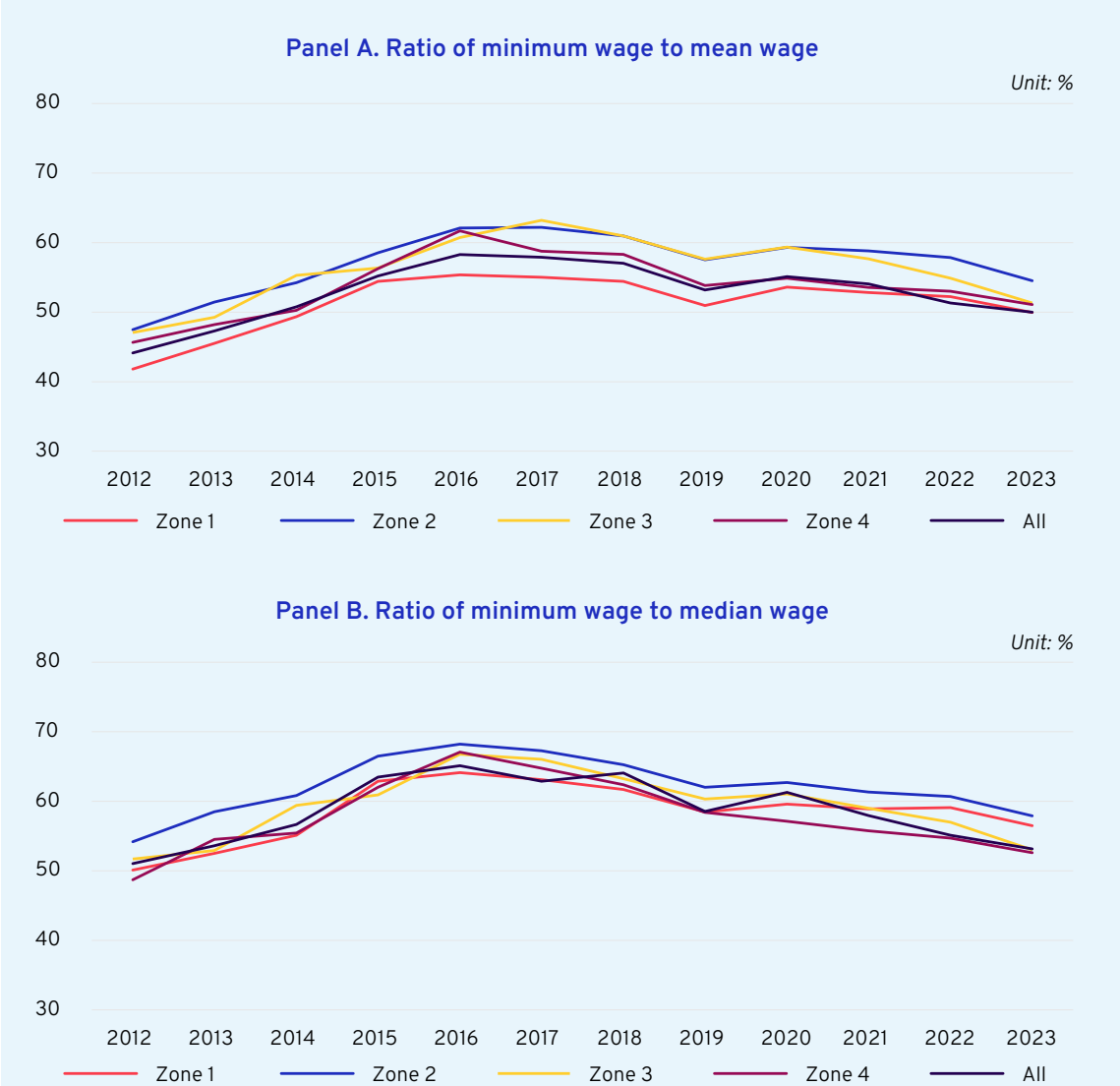
Source: Authors' calculations based on the Government's legitimate minimum wage rates.

To assess the relative levels of minimum wage, the ratios of the average minimum wage to both mean and median wages over time using Viet Nam's LFSs were calculated. LFSs contain data on the monthly wage earnings of workers. With 2024's LFS data unavailable at the time of research, these ratios were estimated from 2012 to 2023, using average wages for all wage-earning workers aged 15 years and older who worked at least one hour during the reference week. Employment is defined based on the individual's main job during the seven days preceding the LFS interview. Observations corresponding to wage workers with missing data on monthly wages (0.5 per cent of wage

workers in the sample) were excluded from mean wage calculations. It is important to note that the monthly wage refers to the total amount received in the past month and is not adjusted for hours worked.

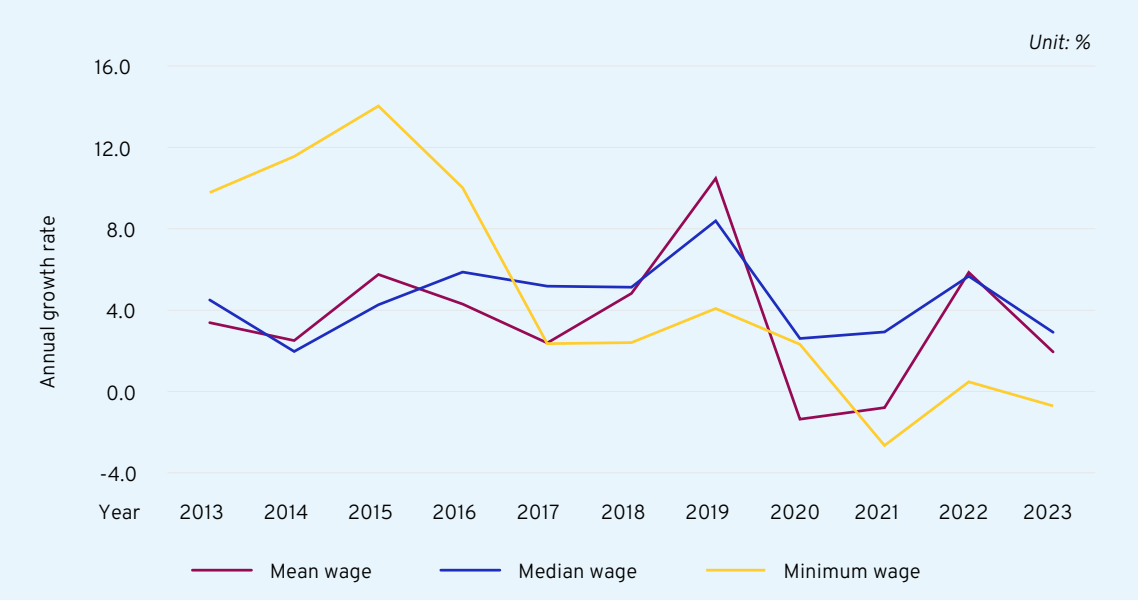
Panel A of Figure 3 illustrates that the ratio of average minimum wage to mean wage climbed from 44 per cent in 2012 to a peak of 58 per cent in 2016, before decreasing to 50 per cent in 2023. Panel B shows a similar trend for the ratio of minimum wage to median wage across four zones over time. This inverted U-shaped pattern reflects the rapid growth rate of minimum wage during 2012–16, followed by softer increases from 2017 to 2023 with the impact of the pandemic (Figure 4). During 2012–16, even with quite significant growth of real minimum wage, these minimum rates remained relatively low and were deemed to be lower than minimum living standards, prompting the government to implement significant increases to ensure basic living standards for workers. As a result, the minimum wage grew at a faster rate than both the mean and median wages. By 2017, the minimum wage was considered aligned with minimum living standards, leading the government to adopt a slower pace of wage increases.

▸ **Figure 3. Ratio of minimum wage to mean wage and median wage**



Note: The sample includes wage workers working at least 35 hours a week.
Source: Authors' calculations using LFSs for the period 2012–23.

▶ Figure 4. Annual growth rates of minimum wage, mean wage and median wage



Note: The sample includes wage workers working at least 35 hours a week.

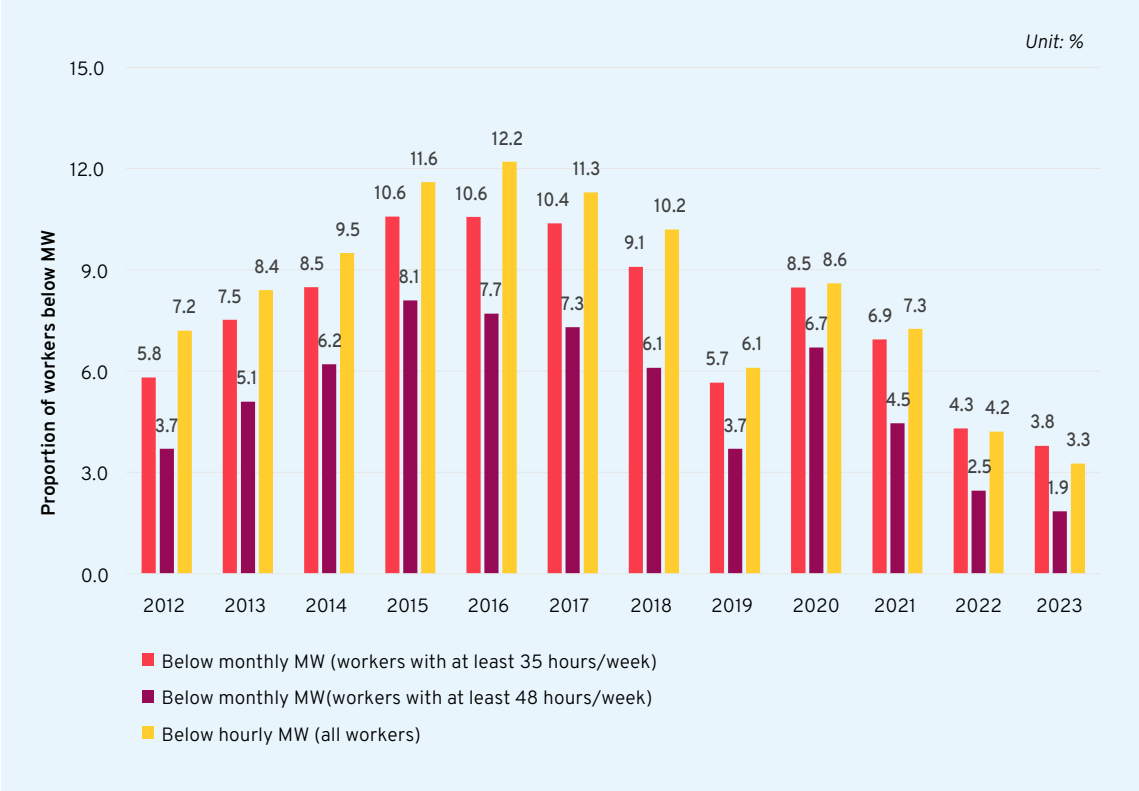
Source: Authors' calculations using LFSs for the period 2012–23.

An important issue is compliance with the minimum wage.[1] In this study, compliance is examined by analyzing the proportion of workers earning less than the minimum wage. Workers may have low monthly wages if they are not full-time employees. According to the National Statistics Office (NSO, former GSO), a worker is considered underemployed if they work less than 35 hours per week. Therefore, the sample was limited to wage workers who worked at least 35 hours in the past seven days (in 2023, this was 89 per cent of wage workers). However, under Viet Nam's Labour Code, the standard workweek is 48 hours. Thus, the proportion of workers earning below the minimum wage among those working at least 48 hours was calculated (62 per cent of total wage workers worked at least 48 hours a week in 2023). Finally, the proportion of workers below the hourly minimum wage was examined by calculating hourly minimum wage based on the monthly minimum wage multiplied by 12, divided by the annual working hours of 2,496 (52 weeks multiplied by 48 hours/week). The proportion of workers below the hourly minimum wage was estimated for all wage-earning workers, regardless of the number of hours worked.

Figure 5 illustrates a consistent trend in the proportion of workers earning below the minimum wage from 2012 to 2023, regardless of the definition used for minimum wage compliance. The share of workers receiving less than the minimum wage climbed from 2012 to 2016, then declined through to 2019. Due to the pandemic, this proportion increased in 2020 but declined again since 2021. In 2023, the proportion of workers working at least 35 hours per week who earned below the minimum wage was 3.8 per cent (928,000 workers), while 1.9 per cent of those working at least 48 hours per week fell below this threshold (337,000 workers). Additionally, 3.3 per cent of workers in 2023 earned less than the calculated hourly minimum wage (957,000 workers).

[1] It is important to note that compliance for own-account workers and contributing family workers was not assessed, as there is no formal labour relationship in these groups. The proportion of own-account and contributing family workers earning below the minimum wage is likely higher than that of wage-earning workers, as these groups generally have lower monthly incomes. In 2023, the average monthly income of all workers was VND7.1 million, while the average monthly wage of employees was VND8 million, according to updated NSO data.

▶ Figure 5. Share of wage workers earning below the minimum wage

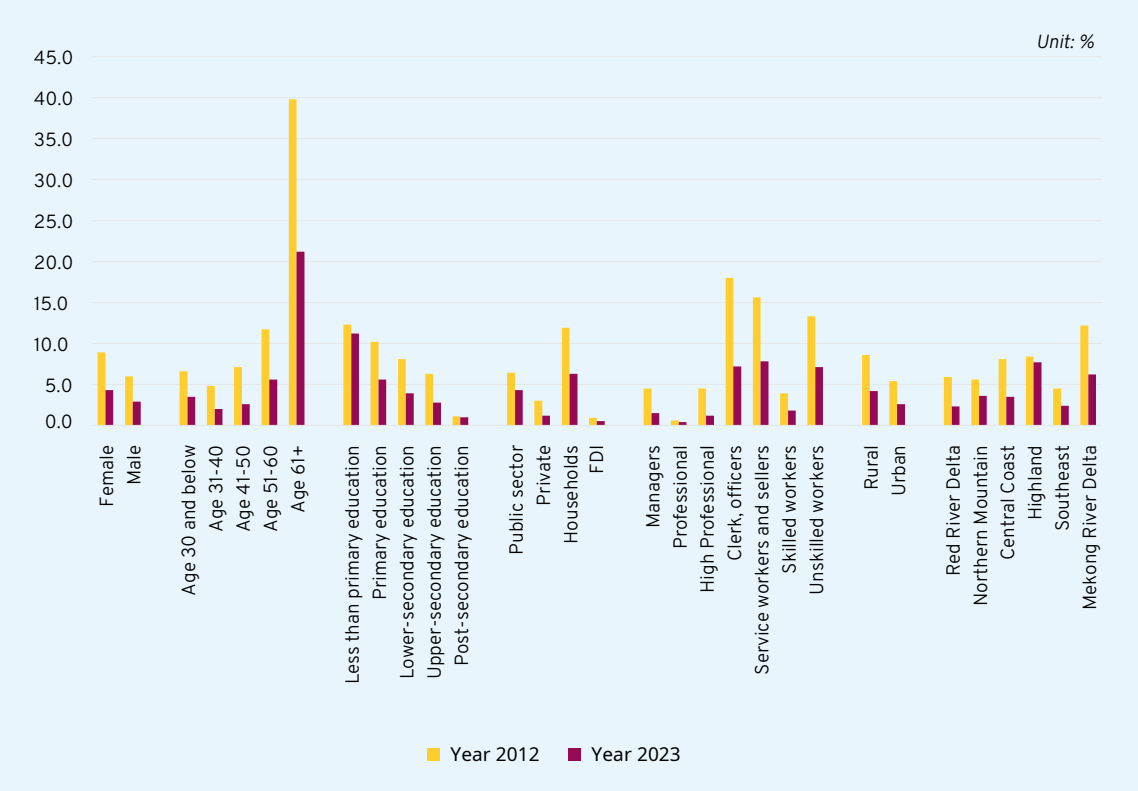


Source: Authors' calculations using LFSs for the period 2012–23.

Exploring the characteristics of workers earning below the minimum hourly wage in 2012 and 2023 (Figure 6) reveals that female workers are more likely to earn below the minimum hourly wage than their male counterparts. Similarly, older and less educated workers have higher incidences of earning below the minimum wage than those younger and with higher educational attainment, respectively.

Workers in formal employment, defined as those enrolled in social insurance, are much less likely to earn below the minimum wage than those in informal employment. By employer type, household-employed workers have the highest rate of earning below minimum wage, with those employed by FDI and private firms being at the other end of the spectrum. It should be noted that some public sector workers receive wages below the minimum wage. Salaries in this sector are determined by multiplying the salary coefficient by the base salary. As a result, newly employed workers in the public sector with a low salary coefficient may earn a monthly salary below the minimum wage. Regionally, the Central Highlands and Mekong River Delta reported the highest proportions of workers earning below the minimum wage.

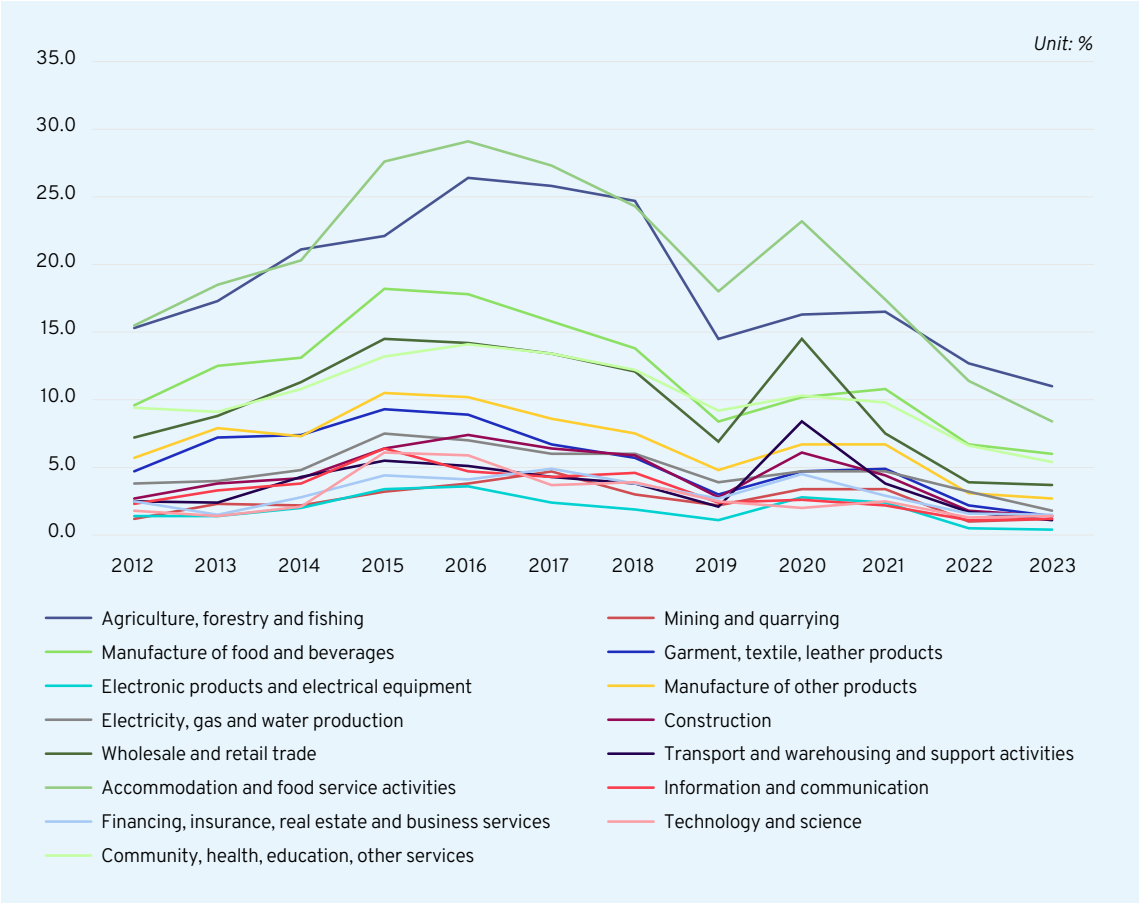
▶ Figure 6. Proportion of workers earning below the hourly minimum wage by workers' characteristics



Source: Authors' calculations using LFSs for 2012 and 2023.

Figure 7 shows the proportion of workers earning below the hourly minimum wage across various economic sectors during 2012–23, focused on those working at least 35 hours per week. The three sectors with the highest proportions of such workers are 'Agriculture, Forestry, and Fishing', 'Accommodation and Food Services' and 'Manufacturing of Food and Beverages'.

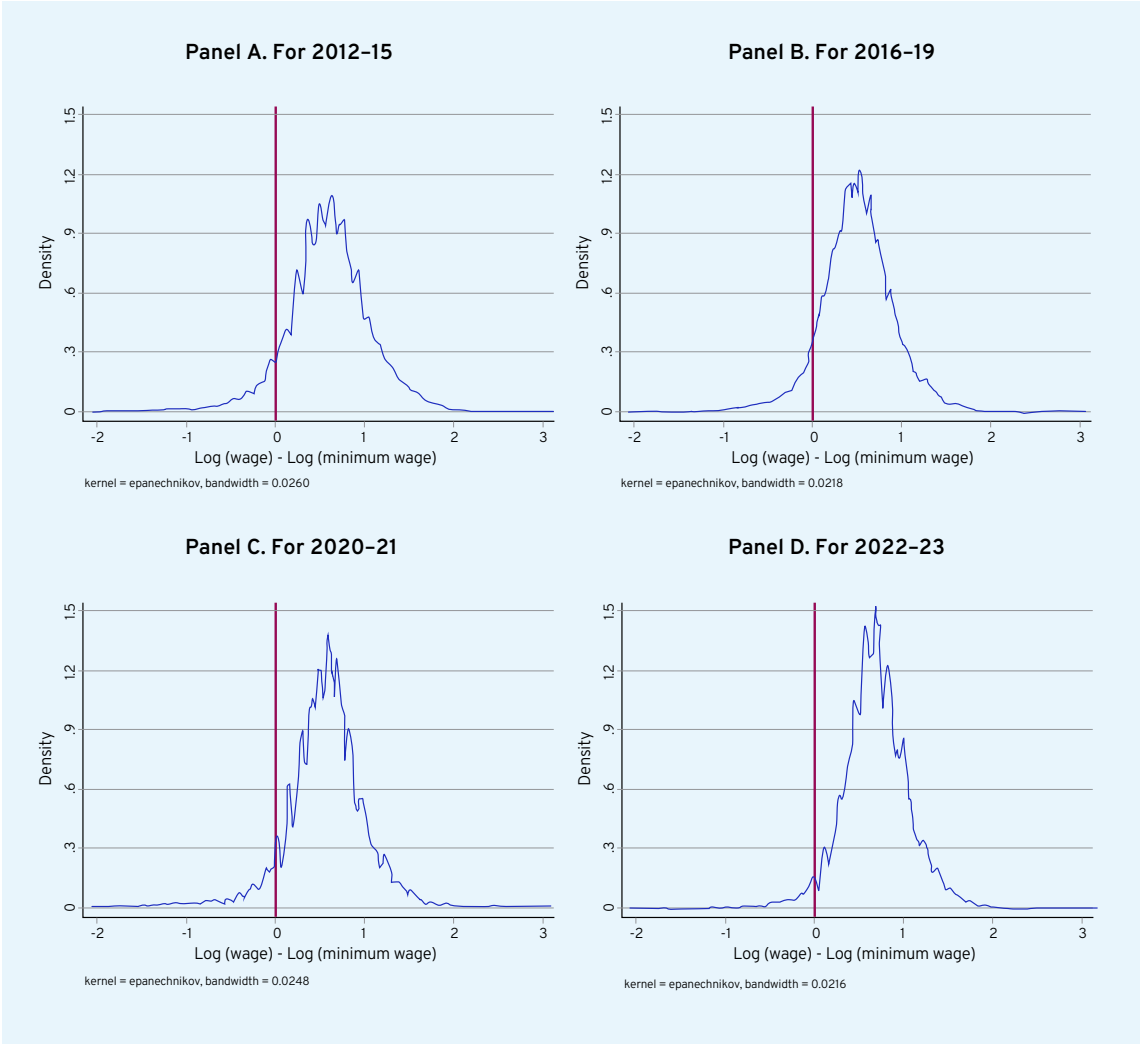
▸ Figure 7. Proportion of workers earning below the hourly minimum wage by economic sector



Source: Authors' calculations using LFSs for the period 2012–23.

The kernel density of the difference between the logs of wages and minimum wage also highlights the number of workers earning below the minimum wage. Kernel density graphs are a common tool for examining the binding effect of minimum wage (Ye 2017). If there is a spike or truncation just above the minimum wage threshold, this indicates higher compliance with minimum wage regulations. Figure 8 shows the kernel density of monthly wages for workers who worked at least 35 hours per week. A spike around zero for all periods indicates that some workers are affected by the minimum wage. The truncation tends to be higher for the periods 2012–15 and 2022–23 suggesting stronger compliance with minimum wage during these periods. Compliance appears lower during the pandemic years of 2020 and 2021. Figures A.1 and A.2 in the Appendix present the kernel density distributions of monthly wages for workers in urban and rural areas. Overall, the distributions are quite similar between the two areas.

▶ Figure 8. Kernel distribution of wages



Note: The sample includes workers with at least 35 working hours a week.

Source: Authors' calculations using LFSs for the period 2012–23.

4

Research methods

▸ 4. Research methods

4.1. Quantitative analysis

▸ 4.1.1. Datasets

Individual-level data. The key data source was Labour Force Surveys (LFS) from 2012 to 2023. Conducted annually by NSO, it is representative of national, urban-rural, and provincial levels. The sample size of each survey is around 800,000 respondents. In addition to basic demographic information (age, gender, and education), it contains detailed data on employment. Respondents, aged 15 years and above, are surveyed on employment, monthly wages, and the number of working hours during the past seven days. The primary working age in Viet Nam, those aged 15–64 years, is the key focus on this study.

It is important to note that the LFSs collect information only on workers' total monthly earnings, which include wages, overtime pay, bonuses, and other forms of compensation. As a result, the analysis is unable to distinguish fixed monthly wages - the component most directly affected by minimum wage regulations and used as the basis for social insurance contributions - from workers' total monthly earnings.

Firm-level data. The Viet Nam Enterprise Census, spanning 2012–22, was the central data source. Conducted annually by NSO, it covers all firms nationwide and contains pertinent information on the types of firms, sectors, numbers of workers, wages, revenue, and profits.

▸ 4.1.2. Estimation methods

This research explores minimum wage effects on the employment and social outcomes of households and performance indicators of firms. Based on LFS data availability, worker outcomes were measured by employment, types of jobs (formal/informal, skilled/unskilled, sectors of employment), hours worked, wages, and income. The effects of zone-based minimum wage are calculated based on an outcome of interest, for example, log of monthly wage of workers, using the following regression:

$$(y_{idpmt}) = \alpha + (MW_{dpt})\,\beta + X_{idpmt}\gamma + P_{pmt}\theta + D_{dp} + \varepsilon_{idpmt},$$

where y_{idpt} is an outcome of interest such as monthly wage of individual i in district d in province p in month m of year t.[2] This model can be applied for all district-level outcomes. MW_{dpmt} is minimum wage of district p in month m of year t. Viet Nam has implemented four minimum wage levels for four zones since 2008. A minimum wage zone is defined based on districts. Thus, MW is defined at the district level and it varies over months. Coefficient β measures the elasticity of the wage with respect to the minimum wage. It should be noted that the variable of logarithm of real minimum wage is used. The Kaitz index or any ratio of minimum wage to average wage is not used. Since average wage can also be affected by minimum wage, this makes it difficult to interpret the effect of minimum wage on company outcomes. Log of minimum wage is widely used to measure the effect of minimum wage on employment and worker wages in empirical studies (Allegretto et al. 2017, Dube 2019b). X_{idpmt} is a vector of individuals' characteristics, such as gender, age, and education. The main challenge in measuring the effect of minimum wage is the endogeneity bias due to omitted variables. For example, government standards move a district from a low-minimum wage zone to a high-minimum wage zone if the district experienced improved living standards in the previous year(s). To mitigate the endogeneity bias, we control for district fixed-effects (D_{dp}) in the regression. If there are unobserved time-invariant variables that affect both employment and minimum wage, the minimum wage estimates are still biased.

[2] Before July 2025, at the first-level administrative division, Viet Nam consisted of 58 provinces and five central-level cities or municipalities. A province was divided into districts, and a district was further divided into communes or wards. In 2024, there were around 700 districts and 10,600 communes.

To mitigate this, the approach of Allegretto et al. (2017) and Dube (2019b) is followed to control for province-specific time effects, P_{mdp}. The inclusion of province-specific year-month effects eliminates all variations between provinces and only relies on variations within provinces to identify minimum wage effects. This allows for control of time-varying heterogeneity in the outcomes across provinces as well as year-month fixed effects. Inclusion of P_{mdp} means controlling for any time-variant variables at the provincial level, such as population and GDP of provinces.

The heterogeneous effects of minimum wage between different population groups – defined by gender, urban and rural, and education levels – can be explored by estimating Equation (1) for separate population sub-groups.

It is important to note that there have been recent concerns about the bias in fixed effects regression due to the treatment effect heterogeneity over time or groups (Roth et al. 2023). Recent methods to address this issue are often applied in the context of binary treatments instead of continuous treatments. These methods also require the availability of untreated or yet to be treated units. In this case, all individuals and firms were exposed to minimum wage changes over time. The traditional two-way fixed-effect regression to estimate Equation (1), therefore, was applied.

In impact evaluation studies, standard errors are typically clustered at the treatment level, which in this study corresponds to the district level. Recently, Abadie et al. (2023) suggested that clustering should be done at the primary sampling unit level – at the village level in LFSs. However, village-level information is not accessible in LFSs. Consequently, standard errors were clustered at the district level. Additionally, because the dataset includes pooled data over time and LFSs are collected monthly, the multiway clustering technique of Cameron et al. (2011) was applied. This approach allows for clustering at both the district level and by year-month.

A model specification similar to Equation (1) was used to measure the effect of the minimum wage on company performance, utilizing firm-level data from VECs spanning 2012–22. The dependent variables capturing company performance include labour size, revenue per worker, value added per worker, profit, and social insurance costs. Since VECs are conducted annually in April, all variables are measured on a yearly basis. Thus, province-year fixed effects are controlled for instead of province-year-month fixed effects. In this study, a large number of outcomes of individuals and firms are used. To reduce error type I, which is caused by the multiple hypothesis testing problem, a significant level of 5 per cent is used instead of 1 per cent for interpretation.

There are both continuous and binary outcomes. For binary dependent variables, a linear probability model is used instead of a non-linear model, such as logit or probit. The linear probability allows for controlling for district fixed effects and province-year-month fixed effects. In non-linear models, controlling for a large number of dummy variables is challenging due to the incidental parameters problem (Lancaster 2000, Greene 2004). According to Angrist and Pischke (2009), linear probability models do not rely on distributional assumptions and yield impact estimates that differ only slightly from those of logit or probit models.

Finally, although the study set out to estimate the causal effect of minimum wage, fixed-effects regression cannot fully address the selection bias in these estimates. Zone-based minimum wage may correlate with time-invariant factors at district and individual levels. Consequently, the causal effects estimated in this study should be interpreted with caution.

4.2. Qualitative research

The qualitative component of the research gathered in-depth information from key stakeholders to assess the multi-faceted impacts of the minimum wage.

▸ 4.2.1. Sample

The sampling strategy for the qualitative component was purposive sampling, that is an "intentional selection of informants based on their ability to elucidate a specific theme, concept, or phenomenon" (Robinson 2014). Purposive sampling is a practical, cost-effective and efficient method which helps to collect a manageable amount of data and can provide reliable and robust qualitative data when used appropriately.

To gain a comprehensive view of the multifaceted impacts of the minimum wage, three main groups of respondents were identified:

- Firm representatives: These representatives can be either business owners or others in

management positions. They can provide valuable insights into the effects that minimum wage changes have on business operations.

- Labour union representatives at firms: The Charter of Viet Nam Trade Union identifies the role of grassroots-level unions to represent and protect the legal and legitimate rights and interests of union members and workers according to provisions of State law.[3] Additionally, as a representative organization of workers at the grassroots level,[4] firm-level unions are to be consulted by employers in developing wage scales, wage tables and work norms.[5] Hence, their role in representing workers and as an important stakeholder in wage determination in the firm provides valuable inputs on minimum wage impacts.
- Workers: They can provide firsthand insights into how wage changes impact individuals' financial stability, job satisfaction, and quality of life.

For this qualitative component, the sample was selected based on preliminary quantitative data analysis and consultations with representatives of tripartite partners of Viet Nam's Social Affairs (MOLISA)[6], the Viet Nam General Confederation of Labour, and the Viet Nam Chamber of Commerce and Industry. Data from these interviews provided insights into minimum wage settings in Viet Nam and highlighted potential areas for in-depth research.

Accordingly, with firms, the research team narrowed down the sampling pool to textile and apparel or seafood processing firms engaged in export or export processing activities, as they are labour-intensive sectors and are expected to be heavily impacted by changes in minimum wage policies. Additionally, these firms were medium to large-scale and within the private sector or FDI enterprises.

From these criteria, along with consultations with MOLISA, Viet Nam Textile & Apparel Association and Viet Nam Association of Seafood Exporters and Producers, six textile and apparel firms and four seafood processing firms were selected. These firms are located across six provinces, ensuring representation of various wage zones.

▶ Table 1. Number of firms selected for qualitative interviews by sector and province

Provinces	Number of firms by sector		Total
	Textile and apparel	Seafood processing	
Ha Noi	1	0	1
Bac Ninh	1	0	1
Nam Dinh	1	0	1
Binh Duong	3	0	3
Hau Giang	0	1	1
Ho Chi Minh City	0	3	3
Total	**6**	**4**	**10**

Source: Research scope of the authors.

[3] See Article 15, Charter of Viet Nam Trade Union.
[4] See Article 3, Labour Code (2019) of Viet Nam.
[5] See Article 93, Labour Code (2019) of Viet Nam.
[6] The MOLISA was merged and renamed the Ministry of Home Affairs (MOHA) since March 2025.

As for workers, the selection criteria ensured diversity in all factors: gender, age, skill level and experience, so qualitative data captured diverse experiences across different industries, skill levels and gender to allow for a comprehensive understanding of policy effectiveness and areas for improvement.

▸ Table 2. Number of respondents by group and sector

Sector	Number of respondents by group			Total
	Firm representatives	Labour union representatives	Workers	
Textile and apparel	6	2	12	20
Seafood processing	4	2	8	14
Total	**10**	**4**	**20**	**34**

Source: Research scope of the authors.

▸ 4.2.2. Method

In-depth interviews, as the main method, used semi-structured and open-ended questions to allow respondents to freely elaborate their perspectives without any coercion or guidance to answer in a certain direction.

In-depth interviews with company and labour union representatives gathered general information about the firms, including how minimum wage changes impact business operations, industrial and labour relations, and the coping strategies firms adopt in response. These interviews also explored participants' perspectives on current minimum wage policies.

In-depth interviews with workers focused on their understanding of minimum wage policies and the impact changes had on their income, benefits, work motivation and life quality.

▸ 4.2.3. Data processing and analysis

All in-depth interviews were audio recorded, following participants' consent. If respondents declined to have the interview recorded, detailed field notes were taken instead.

Recordings were checked and transcribed verbatim, making it easier to read transcripts and report quotes, while still providing non-verbal cues of interviews, to help understand the interview context and ensure a more accurate interpretation[7] and analysis of the interview.

All identifying information was completely removed prior to coding and analysis, in order to ensure confidentiality and protect participants' privacy throughout the research process.

After being cross-checked, field notes and transcripts of all interviews were entered and coded with Excel using common themes among qualitative interviews identified by the research team throughout the data collection process. Once coding was completed, qualitative data were analyzed using a combination of thematic and comparative analysis approaches. Thematic analysis involved organizing data around key concepts to reveal patterns and insights into varied perspectives on minimum wage impacts. Comparative analysis was employed to examine differences and similarities across participant groups, allowing for a nuanced understanding of how minimum wage adjustments might influence different stakeholder groups. This dual approach enabled a comprehensive exploration of both commonalities and differences across the study sample.

[7] For example, giggles or sighing, etc.

4.3. Limitations

▸ 4.3.1. Quantitative method

The main limitation of the quantitative method in this study was that it did not fully address the endogeneity bias in estimating the impacts of minimum wage. Although minimum wage is set at the district level, there may be unobserved variables correlated with changes in minimum wage. While regressions were employed with district fixed effects and province–year–month fixed effects, such specifications cannot fully eliminate selection bias. Consequently, the causal effects estimated in this study should be interpreted with caution.

▸ 4.3.2. Qualitative method

Sampling: While practical and cost-effective, the purposive sampling strategy used in this study limits the generalizability of the findings. By focusing on labour-intensive and export-oriented sectors, the sample excludes businesses in other sectors that may experience different impacts from minimum wage adjustments. Additionally, the selection of firms was partly guided by consultations with specific industry associations and government bodies, which may have led to a stronger representation of businesses actively involved in policy discussions, while potentially limiting insights from smaller enterprises or those with different experiences.

Data collection: The study's reliance on in-depth interviews with a relatively small sample size may restrict the diversity and scope of insights gathered. With only 20 worker interviews, the findings may not fully reflect the wide range of experiences and perspectives across different demographic and socio-economic groups. From a company's perspective, representatives may have limited access to certain types of company data, potentially impacting the depth of evidence-based insights. Furthermore, participants' responses could be influenced by their comfort level in sharing candid opinions, particularly among company representatives and labour union officials, who might weigh their organizational interests - consciously or not - when responding.

5

Main findings

▶ 5. Main findings

5.1. Quantitative empirical results

▶ 5.1.1. Characteristics of low-wage workers

To analyze the characteristics of low-wage workers, indicator variables were regressed for workers earning below the minimum wage and those in the bottom 10 per cent of monthly wages on a set of worker characteristics using linear probability models. The sample was restricted to wage workers aged 15–64 years who work at least 35 hours per week, with results shown in columns 1 and 2 of Table 3. Similar regressions were run for workers earning below the hourly minimum wage and those in the bottom 10 per cent of hourly wages, as shown in columns 3 and 4 of Table 3. In these regressions, the sample includes all wage workers aged 15–64 years, including those working fewer than 35 hours per week. Overall, the results are consistent. The sign and magnitude of explanatory variables are quite similar in the four regressions. For interpretive purposes, regression results are referred to in column 1, which pertains to workers earning below the monthly minimum wage. It should be noted that the regression is used to examine differences in characteristics between workers earning above and below the minimum wage. The aim is not to estimate the causal effect of any explanatory variable on the probability of earning below the minimum wage.

Compared to men, nationwide, women were found by this assessment to earn lower wages. As a result, female workers are more likely than their male peers to earn below the minimum wage. When controlling for other variables, female workers have a 2.4 percentage point higher probability of earning below the minimum wage compared to males, as shown in Table 3 and discussed in the previous chapter. This effect is notable, given that the average share of workers earning below the minimum wage from 2012 to 2023 was approximately 7 per cent. As age and earnings have an inverted U-shaped relationship, this is also evident between age and the proportion of workers earning below the minimum wage. While workers aged 40–49 years have the lowest rate of earnings below the minimum wage, the opposite is true for older workers and particularly those aged more than 60 years.

In terms of education, workers with lower educational attainment had a higher probability of earning below the minimum wage than those with higher education levels. Compared to workers with post-secondary education, those with less than primary education are 7.4 percentage points more likely to earn below the minimum wage.

Assessing the relationship between employment characteristics and low-wage probability, the likelihood of earning below the minimum wage is 5.4 percentage points lower for workers with formal employment – enrolled in social insurance – than those informally employed. Workers in household businesses and public sectors have a higher likelihood of earning below the minimum wage than those in the private and FDI sectors. Regarding occupation, clerks and office workers have the highest proportion of workers below the minimum wage, followed by service and sales staff. By sector, workers in the construction sector – the reference group – are the least likely to earn below the minimum wage, in contrast to agricultural workers at the opposite end of the spectrum, followed by those in “community, health, education, and other services”.

▶ Table 3. OLS regression of earnings below the minimum wage and earnings low wages

Explanatory variables	Dependent variables			
	Workers with a monthly wage below minimum wage (yes=1, no=0)	Workers in the bottom 10% of monthly wages (yes=1, no=0)	Workers with hourly wage below minimum wage (yes=1, no=0)	Workers in the bottom 10% of hourly wages (yes=1, no=0)
	(1)	(2)	(3)	(4)
Female workers	0.0240**	0.0441**	0.0150**	0.0526**
Age groups (base = Aged 15–29)				
Aged 30–39	-0.0122**	-0.0262**	-0.0113**	-0.0374**
Aged 40–49	-0.0125**	-0.0301**	-0.0129**	-0.0437**
Aged 50–59	0.0103**	-0.0004	0.0078*	-0.0073
Aged 60–64	0.1271**	0.1346**	0.1361**	0.1529**
Formal employment	-0.0540**	-0.0724**	-0.0548**	-0.1047**
Education (reference = post-secondary)				
Less than primary education	0.0735**	0.1133**	0.0696**	0.1361**
Primary education	0.0263**	0.0459**	0.0323**	0.0710**
Lower-secondary education	0.0211**	0.0364**	0.0277**	0.0619**
Upper-secondary education	0.0169**	0.0253**	0.0231**	0.0442**
Sector (reference = Working in public sector)				
Working for private sector	-0.0305**	-0.0396**	-0.0303**	-0.0468**
Working for households	-0.0192**	-0.0177	-0.0304**	-0.0493**
Working in FDI sectors	-0.0321**	-0.0462**	-0.0325**	-0.0721**
Occupation (reference = managers)				
Professional	-0.0004	0.0036	-0.0018	-0.0029
High professional	0.0058	0.0134*	0.0014	0.0048
Clerks and officers	0.0419**	0.0540**	0.0485**	0.0674**
Service workers and sellers	0.0278**	0.0479**	0.0264**	0.0699**
Skilled workers	-0.0008	-0.0000	-0.0095*	-0.0144
Unskilled workers	0.0195**	0.0383**	0.0050	0.0371**
Armed forces occupations	-0.0056	-0.0106	-0.0009	-0.0115
Economic sector (reference = construction)				
Agriculture, forestry and fishing	0.1042**	0.1953**	0.0725**	0.1893**
Mining and quarrying	0.0463**	0.0684**	0.0402**	0.0634**

Explanatory variables	Dependent variables			
	Workers with a monthly wage below minimum wage (yes=1, no=0)	Workers in the bottom 10% of monthly wages (yes=1, no=0)	Workers with hourly wage below minimum wage (yes=1, no=0)	Workers in the bottom 10% of hourly wages (yes=1, no=0)
	(1)	(2)	(3)	(4)
Manufacture of food and beverages	0.0694**	0.0834**	0.0618**	0.1107**
Garment, textile, and leather products	0.0550**	0.0804**	0.0495**	0.1129**
Electronic products and electrical equipment	0.0561**	0.0752**	0.0490**	0.0886**
Manufacture of other products	0.0557**	0.0796**	0.0500**	0.0978**
Electricity, gas and water production	0.0465**	0.0668**	0.0370**	0.0809**
Wholesale and retail trade	0.0425**	0.0601**	0.0358**	0.0651**
Transport, warehousing and support activities	0.0344**	0.0442**	0.0272**	0.0422**
Accommodation and food service activities	0.0599**	0.0812**	0.0484**	0.0923**
Information and communication	0.0623**	0.0945**	0.0539**	0.0991**
Financing, insurance, and real estate	0.0535**	0.0772**	0.0462**	0.0800**
Technology and science	0.0612**	0.0952**	0.0566**	0.1038**
Community, health, education, and other services	0.0778**	0.1079**	0.0631**	0.1112**
Urban areas	-0.0041	-0.0147**	-0.0054*	-0.0179**
Region (reference = Red River Delta)				
Northern Mountains	0.0079	0.0387**	0.0080	0.0527**
Central Coast	0.0019	0.0383**	-0.0021	0.0505**
Central Highlands	0.0293*	0.0978**	0.0189	0.0780**
Southeast	0.0022	-0.0080*	0.0006	-0.0244**
Mekong River Delta	0.0216**	0.0445**	0.0119	0.0445**
Constant	0.0028	-0.0008	0.0197**	0.0435**
Observations	180,545	180,545	203,460	203,460
R-squared	0.090	0.147	0.081	0.156

Note: Robust standard errors in parentheses (clustered at the district level).
** p<0.01, * p<0.05.

Source: Authors' calculations using LFSs for the period 2012–23.

▶ 5.1.2. Impacts of minimum wage on employment

The regression results of employment outcomes for people aged 15–64 years on district-level minimum wage are presented in Table 4. A full sample is used for this age group, including those not in the labour force, to examine whether minimum wage affects labour force participation. Gender, age, education and urban dummies are controlled for in all regressions. Exogenous control variables are used, which are not affected by minimum wage (Heckman et al. 1999, Angrist and Pischke 2008). As a result, variables such as occupation and employment sectors are not controlled in the regressions. As data on time-variant variables at the district level is unavailable, district-level time-invariant variables cannot be controlled for. Provincial-level variables are already controlled by the province-year fixed effects. A range of dependent variables on employment status[8] were used. In this study, a formal job is defined as one with social insurance contributions. Regarding the log of work hours, the log(x+1) transformation is used to avoid the zero value.

Consistent with Nguyen (2013) and Nguyen (2024), zone-based minimum wage was found to have no significant impact on employment status or unemployment. With Viet Nam having a relatively high informal employment rate and low unemployment rate, no statistically significant minimum wage effects were observed on other employment outcomes at the 5 per cent level. The coefficient of minimum wage is negative, but not statistically significant in the regressions for log of work hours. While the model specification closely followed Nguyen (2024), the latter used LFS data from 2012 to 2020, while this study only included data to 2023.

Table 4 presents the results from the full sample of individuals aged 15–64 years, including non-workers and those without wages. To estimate the effect on wages, the sample was restricted to wage workers. Table 5 highlights the impacts of minimum wage on employment and wages, with no significant effect on having a formal or wage job. Similarly, the effects on working hours and wages for wage-earning workers are not statistically significant.

[8] Dependent variables include: 'being unemployed', 'have worked during the past seven days', 'being layoff', 'having a labour contract for the main job', 'having a wage job', 'having a formal job', 'log of number of working hours in the last seven days for the main job', and 'log of number of total working hours in the last seven days'.

Table 4. Regressions of employment variables of individuals aged 15–64

Explanatory variables	Dependent variables							
	Unemployed (yes=1, no=0)	Working during the past 7 days (yes=1, no=0)	Having a wage job (yes=1, no=0)	Having self-employed work (yes=1, no=0)	Having job with labour contract (yes=1, no=0)	Having formal job (yes=1, no=0)	Log of working hours in the last 7 days (sample of working people)	Log of working hours in the last 7 days (all individuals)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log of minimum wage	-0.0072	0.0015	0.0728	-0.0722	0.0702	0.0609	-0.0174	-0.0148
	(0.0086)	(0.0168)	(0.0508)	(0.0553)	(0.0491)	(0.0435)	(0.0554)	(0.0793)
Male	0.0004	0.0080**	0.0925**	-0.0865**	-0.0351**	-0.0415**	0.0649**	0.0918**
	(0.0005)	(0.0011)	(0.0031)	(0.0032)	(0.0032)	(0.0031)	(0.0025)	(0.0051)
Age	-0.0068**	0.0092**	0.0047**	0.0046**	0.0073**	0.0120**	0.0276**	0.0606**
	(0.0002)	(0.0004)	(0.0007)	(0.0006)	(0.0006)	(0.0006)	(0.0008)	(0.0015)
Age squared	0.0001**	-0.0001**	-0.0002**	0.0001**	-0.0001**	-0.0002**	-0.0004**	-0.0007**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Less than primary education	Reference							
Primary education	-0.0040**	0.0059**	-0.0460**	0.0517**	-0.0037	-0.0001	0.0168**	0.0382**
	(0.0004)	(0.0007)	(0.0030)	(0.0029)	(0.0033)	(0.0027)	(0.0020)	(0.0034)
Lower-secondary education	-0.0054**	0.0078**	-0.0435**	0.0510**	0.0445**	0.0444**	0.0244**	0.0527**
	(0.0005)	(0.0009)	(0.0036)	(0.0035)	(0.0040)	(0.0034)	(0.0024)	(0.0044)
Upper-secondary education	-0.0016**	0.0069**	0.0401**	-0.0323**	0.2163**	0.2028**	0.0352**	0.0591**

Explanatory variables	Dependent variables							
	Unemployed (yes=1, no=0)	Working during the past 7 days (yes=1, no=0)	Having a wage job (yes=1, no=0)	Having self-employed work (yes=1, no=0)	Having job with labour contract (yes=1, no=0)	Having formal job (yes=1, no=0)	Log of working hours in the last 7 days (sample of working people)	Log of working hours in the last 7 days (all individuals)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	(0.0006)	(0.0015)	(0.0052)	(0.0053)	(0.0052)	(0.0044)	(0.0032)	(0.0068)
Post-secondary education	0.0069**	-0.0051	0.3176**	-0.3123**	0.6058**	0.6045**	-0.0247**	-0.0429**
	(0.0012)	(0.0030)	(0.0096)	(0.0101)	(0.0089)	(0.0081)	(0.0058)	(0.0134)
Urban dummies	0.0071**	-0.0052**	0.0421**	-0.0460**	0.0285**	0.0248**	0.0262**	0.0062
	(0.0006)	(0.0013)	(0.0042)	(0.0044)	(0.0037)	(0.0034)	(0.0030)	(0.0055)
District fixed effects	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Province-year-month fixed effects	Yes	Yes	Yes	Yes		Yes	Yes	Yes
Constant	0.2227**	0.7513**	-0.1298	0.8957*	-0.4665	-0.5196	3.3701**	2.4930**
	(0.0705)	(0.1358)	(0.4124)	(0.4494)	(0.4003)	(0.3551)	(0.4475)	(0.6392)
Observations	5 125 793	5 125 793	5 125 793	5 125 793	4 724 056	4 724 056	4 933 784	5 125 793
R-squared	0.035	0.104	0.252	0.271	0.376	0.378	0.169	0.138

Note: Standard errors in parentheses. Standard errors are clustered at the district and year-month levels.
** p<0.01, * p<0.05.
Source: Authors' calculations using LFSs for the period 2012–23.

▶ Table 5. Regressions of employment variables of wage workers

Explanatory variables	Dependent variables				
	Having job with labour contract (yes=1, no=0)	Having formal job (yes=1, no=0)	Log of number of working hours in the last 7 days	Log of monthly wage	Log of hourly wage
	(1)	(2)	(3)	(4)	(5)
Log of minimum wage	0.0567	0.0591	0.0222	0.0202	-0.0020
	(0.0519)	(0.0489)	(0.0396)	(0.0608)	(0.0652)
Male	-0.1366**	-0.1338**	0.0295**	0.1821**	0.1526**
	(0.0057)	(0.0057)	(0.0016)	(0.0048)	(0.0043)
Age	0.0138**	0.0267**	0.0037**	0.0498**	0.0461**
	(0.0008)	(0.0008)	(0.0003)	(0.0011)	(0.0010)
Age squared	-0.0002**	-0.0004**	-0.0001**	-0.0006**	-0.0006**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Less than primary education	Reference				
Primary education	0.0500**	0.0477**	0.0250**	0.0794**	0.0544**
	(0.0092)	(0.0077)	(0.0022)	(0.0075)	(0.0066)
Lower-secondary education	0.1862**	0.1694**	0.0342**	0.1451**	0.1109**
	(0.0098)	(0.0078)	(0.0030)	(0.0084)	(0.0072)
Upper-secondary education	0.4331**	0.4060**	0.0122**	0.2228**	0.2106**
	(0.0127)	(0.0099)	(0.0041)	(0.0095)	(0.0087)
Post-secondary education	0.6480**	0.6660**	-0.0668**	0.4838**	0.5506**
	(0.0149)	(0.0125)	(0.0058)	(0.0124)	(0.0133)
Urban dummies	0.0368**	0.0347**	0.0020	0.0412**	0.0392**
	(0.0052)	(0.0050)	(0.0026)	(0.0045)	(0.0043)
District fixed effects	Yes	Yes	Yes	Yes	Yes
Province-year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	-0.3375	-0.6526	3.5770**	7.2983**	2.2550**
	(0.4259)	(0.4009)	(0.3244)	(0.4965)	(0.5337)
Observations	1 980 246	1 980 246	2 123 007	2 123 007	2 123 007
R-squared	0.402	0.402	0.193	0.406	0.422

Note: Standard errors in parentheses. Standard errors are clustered at the district and year-month levels.
** p<0.01, * p<0.05.
Source: Authors' calculations using LFSs for the period 2012–23.

To examine the impacts of minimum wage on the employment of low-wage workers, the sample was limited to those earning below the minimum wage and in the bottom quintile of monthly earnings for each corresponding year. Table 6 reveals that minimum wage have little effect on the probability of low-wage workers holding a formal job or a job with a labour contract. It should be noted that the effects of minimum wage on wages within this group are not estimated, as they are used to define low-wage workers already influenced by minimum wage levels.

▶ Table 6. Regression of 'job with a labour contract' and 'formal job' of low-wage workers

Explanatory variables	Sample of workers below hourly minimum wage		Sample of workers below monthly minimum wage		Sample of workers in the 10% bottom wages	
	Having job with labour contract (yes=1, no=0)	Having formal job (yes=1, no=0)	Having job with labour contract (yes=1, no=0)	Having formal job (yes=1, no=0)	Having job with labour contract (yes=1, no=0)	Having formal job (yes=1, no=0)
	(1)	(2)	(3)	(4)	(5)	(6)
Log of minimum wage	0.0935	0.1263	0.0861	0.1172	0.0011	0.0021
	(0.0997)	(0.0755)	(0.0845)	(0.0681)	(0.0823)	(0.0751)
Male	0.0689**	0.0176**	0.0367**	0.0048	-0.0577**	-0.0608**
	(0.0066)	(0.0047)	(0.0050)	(0.0035)	(0.0048)	(0.0041)
Age	0.0101**	0.0190**	0.0090**	0.0176**	0.0069**	0.0181**
	(0.0010)	(0.0010)	(0.0009)	(0.0009)	(0.0009)	(0.0008)
Age squared	-0.0001**	-0.0002**	-0.0001**	-0.0002**	-0.0001**	-0.0002**
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Less than primary education	Reference					
Primary education	0.0717**	0.0384**	0.0622**	0.0311**	0.0623**	0.0392**
	(0.0051)	(0.0039)	(0.0038)	(0.0030)	(0.0039)	(0.0031)
Lower-secondary education	0.1970**	0.1108**	0.1887**	0.1024**	0.1914**	0.1297**
	(0.0075)	(0.0052)	(0.0062)	(0.0044)	(0.0054)	(0.0045)
Upper-secondary education	0.4232**	0.2770**	0.4518**	0.2970**	0.4557**	0.3488**
	(0.0096)	(0.0072)	(0.0091)	(0.0070)	(0.0075)	(0.0060)
Post-secondary education	0.6687**	0.4970**	0.7336**	0.5661**	0.7360**	0.6359**
	(0.0149)	(0.0189)	(0.0105)	(0.0134)	(0.0078)	(0.0084)
Urban dummies	0.0054	-0.0045	0.0158**	0.0091	0.0222**	0.0171**
	(0.0077)	(0.0063)	(0.0060)	(0.0049)	(0.0048)	(0.0042)
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes
Province-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes

Explanatory variables	Sample of workers below hourly minimum wage		Sample of workers below monthly minimum wage		Sample of workers in the 10% bottom wages	
	Having job with labour contract (yes=1, no=0)	Having formal job (yes=1, no=0)	Having job with labour contract (yes=1, no=0)	Having formal job (yes=1, no=0)	Having job with labour contract (yes=1, no=0)	Having formal job (yes=1, no=0)
	(1)	(2)	(3)	(4)	(5)	(6)
Constant	-0.9338	-1.3313*	-0.8839	-1.2548*	-0.0312	-0.2408
	(0.8138)	(0.6167)	(0.6879)	(0.5541)	(0.6674)	(0.6087)
Observations	157 871	157 871	206 943	206 943	498 703	498 703
R-squared	0.330	0.272	0.367	0.305	0.332	0.310

Note: Standard errors in parentheses. Standard errors are clustered at the district and year-month levels.
** p<0.01, * p<0.05.

Source: Authors' calculations using LFSs for the period 2012–23.

To explore whether higher minimum wage may have negatively impacted the employment and job security of workers during the pandemic, the same model in Tables 4 and 5 is used, focused on data from 2019–23. The results are presented in Tables A.1 and A.2 in the Appendix. Consistent with findings in Tables 4 and 5, minimum wage did not leave a significant footprint on employment or wages during 2019–23.

▸ 5.1.3. Impacts of minimum wage on company performance

In Tables 7 and 8, minimum wage impacts on company performance are explored using VEC data from 2012–22. In Table 7, a range of company outcomes are presented, including turnover, profit, value added, total assets, export participation, total wages, number of workers, wage per worker, and social insurance payments. Additionally, these outcomes per worker are calculated in Table 8, which also includes information on the logs of numbers of workers and female ones. The regression controls for company ownership types, district fixed effects, and province-year fixed effects, but not for economic sectors as this variable can be affected by minimum wage.[9] In all regressions, the minimum wage variable is not statistically significant at the 5 per cent level. Estimates from VEC 2019–22 data, presented in Table A.3 and Table A.4 in the Appendix, also show insignificant effects of minimum wage during the pandemic. Therefore, consistent with findings on minimum wage effects on individual employment, impacts on firms are also negligible.

The absence of significant effects of minimum wage adjustments on employment and firm performance may reflect several features of Vietnam's minimum wage-setting mechanism and labour market conditions. First, minimum wage adjustments are determined through a tripartite consultation process that seeks to balance improvements in workers' living standards with firms' ability to pay and the broader objective of maintaining stable production and employment. As a result, minimum wage increases tend to be implemented cautiously, limiting potential adverse effects on firms and labour market outcomes. Second, a substantial share of minimum wage adjustments is intended to compensate for inflation and rising living costs, meaning that real increases in the minimum wage are not high. Finally, Vietnam's labour market is characterized by a large informal sector and persistently low unemployment rates, providing both workers and firms with considerable flexibility to adjust without necessarily reducing employment. Taken together, these factors may help explain why minimum wage adjustments during the study period did not lead to measurable changes in employment outcomes or firm performance.

[9] For a robustness check, economic sector fixed effects and the log of company size in regressions were controlled. The results remained similar, with insignificant minimum wage effects on outcomes at the 5 per cent significance level.

▸ Table 7. Regressions of company outcomes

Explanatory variables	Dependent variables							
	Log of turnover	Log of profit	Log of value added	Log of asset	Export articipation	Log of total wages	Log of social insurance payment	Log of wage per worker
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log of minimum wage	-0.0016	-0.0038	-0.2057	0.0414	-0.0082	-0.1795	-0.1602	-0.1032
	(0.1969)	(0.1673)	(0.1532)	(0.1192)	(0.0104)	(0.1522)	(0.1677)	(0.0852)
Domestic firms	Reference							
SOEs	0.5213**	1.2489**	0.7727**	0.0598	0.0218**	0.9914**	1.2608**	0.0856**
	(0.0654)	(0.0774)	(0.0597)	(0.0543)	(0.0040)	(0.0671)	(0.0661)	(0.0276)
FDI firms	2.0165**	3.2829**	2.3918**	1.4474**	0.4703**	2.1880**	2.3880**	0.5543**
	(0.1022)	(0.1147)	(0.1123)	(0.1453)	(0.0270)	(0.0945)	(0.1161)	(0.0162)
Joint-venture firms	2.0015**	3.1175**	2.2529**	1.3870**	0.3051**	2.0928**	2.2887**	0.6037**
	(0.0733)	(0.0829)	(0.0650)	(0.0734)	(0.0166)	(0.0600)	(0.0695)	(0.0165)
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	7.6777**	4.0765**	7.4595**	8.0910**	0.0885	7.0494**	4.8323**	4.7824**
	(1.6200)	(1.3728)	(1.2596)	(0.9811)	(0.0860)	(1.2506)	(1.3844)	(0.6998)
Observations	5 232 809	2 583 066	5 555 734	6 133 253	5 834 072	5 068 178	4 391 919	5 021 796
R-squared	0.049	0.142	0.219	0.065	0.195	0.343	0.174	0.551

Note: Standard errors in parentheses. Standard errors are clustered at the district level.
** p<0.01, * p<0.05.
Source: Authors' calculations using VECs for the period 2012–22.

▶ Table 8. Regressions of company labour size and per worker outcomes

Explanatory variables	Dependent variables						
	Log of the number of workers	Log of the number of female workers	Log of turnover per worker	Log of profit per worker	Log of value added per worker	Log of asset per worker	Log of social insurance payment per worker
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log of minimum wage	-0.0501	-0.0230	-0.1040	-0.1095	-0.1807	0.0914	-0.1221
	(0.0943)	(0.0824)	(0.2404)	(0.1856)	(0.1327)	(0.1454)	(0.1185)
Domestic firms	Reference						
SOEs	0.6684**	0.7983**	-0.0188	0.3153**	0.1278**	-0.5441**	0.4166**
	(0.0399)	(0.0492)	(0.0441)	(0.0529)	(0.0348)	(0.0364)	(0.0269)
FDI firms	1.3102**	1.5333**	0.4988**	1.7119**	0.9832**	-0.1160**	0.9714**
	(0.1013)	(0.1111)	(0.0387)	(0.0744)	(0.0287)	(0.0441)	(0.0388)
Joint-venture firms	1.2282**	1.3974**	0.7922**	1.9991**	1.1080**	0.1790**	0.8925**
	(0.0518)	(0.0481)	(0.0585)	(0.0600)	(0.0354)	(0.0541)	(0.0313)
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	2.2515**	1.0376	6.7253**	2.9111	5.5968**	6.1135**	2.8431**
	(0.7749)	(0.6774)	(1.9778)	(1.5234)	(1.0912)	(1.1971)	(0.9781)
Observations	5 284 881	4 943 225	5 342 461	2 657 182	5 637 425	6 208 811	4 484 201
R-squared	0.101	0.108	0.030	0.132	0.267	0.063	0.309

Note: Standard errors in parentheses. Standard errors are clustered at the district level.
** p<0.01, * p<0.05.

Source: Authors' calculations using VECs for the period 2012–22.

▸ 5.1.4. Heterogeneous effects

To examine the heterogeneous effects of minimum wage, their impacts on several key employment variables were estimated using the same model specification as in previous tables. As the primary purpose of minimum wage is to protect low-wage workers, particular attention was paid to their impacts on the probability of wage employment and on monthly wages.

Tables A.5 and A.6 in the Appendix present regressions of the impact of minimum wage on the probability of having a wage employment by gender, age group, rural/urban location, and education level. In Tables A.7 and A.8, the sample was limited to wage workers and the regression log of monthly wages on minimum wage and other control variables for workers in each of the 15 economic sectors. Additionally, the effects of minimum wage across various population subgroups are estimated in Tables A.9 to A.11. For the company data analysis, impacts of minimum wage on profit and the number of company workers for 15 economic sectors are calculated in Tables A.12 to A.15.

As the population is divided into multiple subgroups, the subgroup analysis introduces challenges related to multiple testing. The more subgroups that are examined, the greater the likelihood of rejecting the null hypothesis in a subgroup purely by chance. The p-value represents the false positive rate across all results. To address this issue, the q-values (false discovery rates) are calculated for each outcome using the approach by Simes (1986). The q-value reflects the false positive rate among significant results, reducing the likelihood of finding a spurious significant effect compared to the p-value. For the heterogeneous analysis reported in the Appendix, the q-value for interpretation is used. The results show that minimum wage effects are not statistically significant at the 5 per cent level in any of the regressions. For all population subgroups, there was no significant minimum wage effect on the probability of wage employment or monthly wages. Similarly, minimum wage had little impact on company profits or number of workers in different economic sectors.

5.2. Qualitative data analysis

The qualitative component of this study explored the impacts of zone-based minimum wage adjustments on various aspects of enterprises and workers through in-depth interviews with relevant stakeholders.

▸ 5.2.1. Perceptions of minimum wage impacts on firms

With interview results revealing that company production costs and competitiveness were factors most impacted by minimum wage, the following analysis explores these trends and how firms have adapted to minimum wage adjustments.

5.2.1.1. Perceptions of impacts on firms' production costs

Based on the qualitative research results, it is apparent that minimum wage increases generally have immediate impacts on firms' production costs, mainly relating to labour and material expenses.

a. Labour costs

Overall, minimum wage adjustments were found to leave an imprint on enterprise labour costs to varying degrees. While some company representatives thought such impacts were "not significant" compared to overall operational costs[10], others saw labour costs as "moderately impacted". A representative from a large garment company employing around 7,000 workers stated that with the current increase of VND280,000 per employee per month, the company's labour-related costs would rise by "around VND5 billion" each year. This spike largely stems from adjustments to social insurance contributions and workers' wages.

A 2019 report by MOLISA indicates that the 2020 zone-based minimum wage adjustment primarily impacted social insurance contributions, as the lowest average wage most firms paid workers was 8-12 per cent higher than the mandatory zone-based minimum wage.[11] Similarly, the qualitative findings also pinpointed increased social insurance costs as the most widespread impact for firms. Under current regulations, the base wage for

[10] Quotes from qualitative interview participants. List of anonymous qualitative interview participants in Annex II.

[11] For more information, see: https://www.molisa.gov.vn/baiviet/220950?tintucID=220950

mandatory social insurance calculations must be "no less than the zone-based minimum wage at the time of contribution".[12] Therefore, most firms, regardless of wage-setting mechanisms, rely on the zone-based minimum wage to set basic salaries. These basic salaries exclude allowances, bonuses, and other fringe benefits and serve as the basis for calculating social insurance contributions for employees (see Appendix 3 for details). According to qualitative findings, seven out of 10 interviewed firms increased the base for social insurance contributions by VND280,000–300,000 each month, applied for all workers immediately after the zone-based minimum wage adjustment in July 2024.

Besides social insurance impacts, firms that used the zone-based minimum wage as a reference in wage scale setting also saw a rise in wage costs. Specifically, for firms using the zone-based minimum wage as the lowest wage level, each subsequent level is set at a fixed percentage above the preceding level. When the zone-based minimum wage is adjusted, not only do social insurance costs rise, but wage costs for workers also climb across wage levels, ensuring wage differentiation among workers with different skills and seniority levels.

> "For example, from 2021 to 2023, the minimum wage was VND4,680,000. So before 2024, we based our wage structure on that, with level 1 being VND4,680,000 plus a 5 per cent increase for non-skilled [wage level], and an additional 7 per cent for next skill-level workers. Starting in July 2024, when the minimum wage increased to VND4,960,000, we used VND4,960,000 as the base rate for level 1. Subsequent levels are calculated with a 5 per cent increment. This is how our company operates. Of course, in 2025 or 2026, if the government introduces another minimum wage adjustment, we will use that as the new base for level 1".

Source: Quotes from qualitative interview participants.

The influence of social expectations, amid minimum wage adjustments, was another key factor mentioned in qualitative interviews. Commonly, news of zone-based minimum wage adjustments created worker expectations for wage increases, regardless of whether their wages were above or below the minimum wage. Some workers reported gaining information on other company plans prior to wage adjustments and using it as a basis for negotiating wages with their current employer (see Section 5.2.2.3). In other words, aside from the legal requirement for businesses with wage scales to be closely aligned with the minimum wage policy,[13] adjustments pressure companies to raise wages amid workers' expectations, even if wages are already higher than the current minimum wage and not up for a scheduled review.

> "Our base wage for social insurance contributions is already higher [than the minimum wage level]. However, when the zone-based minimum wage has increased, even if it isn't time for a wage review yet, the demand [from workers] is "the government has increased it, so why haven't we?".

Source: Quotes from qualitative interview participants.

In addition to workers' responses, wage adjustments made by other firms within the same region or industry can also influence a firm's decision to adjust wages. To attract workers, enterprises must maintain competitive wages aligned with the current labour market. Therefore, according to several business representatives in the research, when the minimum wage rises, firms also watch the moves of rivals to make appropriate adjustments or risk losing employees to these competitors.

[12] Point 2.6, Clause 2, Article 6 of Decision No. 595/QĐ-BHXH stipulates the monthly salary for mandatory social insurance contributions.
[13] Articles 90 and 93, Labour Code of Viet Nam (2019).

b. Material costs

Apart from labour costs, upstream actors in the supply chain may raise product prices due to pressure from minimum wage increases, leading to indirect impacts on material costs for firms. According to a garment company representative, "when wages rise, all costs increase, like the cost of materials. Wage increases mean everything increases". Similarly, a seafood company representative stated that "when the zone-based minimum wage rises, our company's costs increase. Once the minimum wage increases, the prices of all materials and supplies climb, everything rises at once". Meanwhile, "contracted prices with customers do not go up," creating additional pressure for the business.

5.2.1.2. Impacts on firms' competitiveness in the international market

Through qualitative interviews, numerous respondents stated that minimum wage rises had negative impacts on firms' competitive advantage in the international market. They argued that as Viet Nam's wage level was currently higher than that of "neighbouring countries", labour costs would also be higher. According to these respondents, although the minimum wage stated in the zone-based minimum wage policy was not high,[14] "considering other costs together", it was still significant. A textile company representative illustrated this challenge by comparing Viet Nam's labour costs with Bangladesh's, stating that the latter's were "a whole lot cheaper than Viet Nam, not just a little bit", making it difficult for Vietnamese firms to secure orders from parent companies.[15] Similarly, another firm representative said some countries, such as Myanmar, have an open policy, not requiring firms to pay social insurance or accommodation allowances for workers, although their labour productivity is "equivalent to that of Vietnamese workers".[16] As such, labour costs would be more competitive than Viet Nam's.

Additionally, some company representatives share that when the minimum wage increased, product costs would also rise and prompt businesses to re-negotiate with customers, which was "difficult" as they "[cannot say] the State increases wages and I have to increase that cost". This especially impacts the garment industry as it is "not an essential industry" – not producing essential commodities, leading to product demand not being "as abundant as before" in the context of international economic headwinds. Therefore, setting higher labour costs makes firms "unconfident" as there was a high risk of "not getting orders". Regular customers may find cost increases "reasonable" if firms can demonstrate the rationale. However, businesses still risk losing customers if "currently experiencing difficulties".

It is important to note that the two industries selected for qualitative research are both labour-intensive, thus labour costs are an important input factor. Research on Viet Nam's garment and seafood processing industries underlines that labour costs remain an important factor for business to control and keep their competitiveness in term of costs (Phan 2017, Nhung and Thuy 2018). Therefore, increasing the minimum wage with subsequent knock-on labour cost impacts was perceived by firms as reducing this international competitive advantage.

The minimum wage policy is one of many factors influencing labour costs in Viet Nam. Qualitative data shows that firms must also consider living standards when building salary scales to ensure the standard of a "living wage" as requested by international customers, while competing with other firms in the same industry or region to attract workers. Thus, although zone-based minimum wage increases may have certain immediate effects on labour costs, in general, living standards and labour market competition are key drivers of labour costs in Viet Nam compared to peer countries.

[14] According to ILO (2023b) estimates, Viet Nam's monthly minimum wage in December 2019 was PPP$437 per month, lower than Indonesia (461), Pakistan (472), Thailand (638), Malaysia (654), but higher than others like Nepal (418), the Philippines (411) and Bangladesh (254).

[15] Compared with Bangladesh, Viet Nam's monthly minimum wage is higher. More recently, in December 2023, the Bangladesh Minimum Wage Board established the garment sector's updated minimum wage as 12,500 Bangladeshi taka, equivalent to US$113 (Wage Trends: Bangladesh - Fair Labour Association, 2025). Meanwhile, monthly minimum wage in Viet Nam range from VND3,250,000 to VND4,680,000 (US$133 to US$192).

[16] This company representative comment refers to productivity of workers within the garment industry. While such statistics are not available for comparison, ILO statistics on labour productivity of countries can be used for reference, not comparison. Labour productivity, per ILO's definition, represents the total volume of output (measured in GDP) produced per unit of labour (measured in terms of number of employed persons or hours worked) during a given time period. According to ILO statistics, Myanmar's labour productivity is US$5.8 per hour worked, while that of Viet Nam is US$12.4 per hour worked (Statistics on Labour Productivity - ILOSTAT, 2024).

In addition, regarding immediate minimum wage impacts on labour costs, qualitative data shows how firms adapt to such adjustments to ensure competitiveness. Respondent firms also shared that when minimum wage increases, businesses find ways to adapt to boost workers' income while balancing production costs, such as investing in machinery and equipment or improving production processes, thereby increasing employee productivity and cutting unnecessary costs (see Section 5.2.1.3).

It is also important to note, as outlined in studies on labour-intensive industries and the garment industry in particular, that low labour costs is only a short-term advantage for Viet Nam (Nadvi et al. 2004). The national economy is more and more developed; consequently, the living standards of workers will be higher, and the labour costs will also be raised. Therefore, to develop sustainably, firms must have appropriate strategies and seek other advantages besides low labour costs (Nadvi et al. 2004, Herr et al. 2016, Phan 2017, Nhung and Thuy 2018). Qualitative data also shows that while some respondent firms believed that labour costs were higher than in some countries in the region, they also recognized that Viet Nam had other attributes to attract investment and orders such as political stability, a skills base and product quality. Thus, firms can develop response strategies to rising labour costs, as explored in the next section of the report.

5.2.1.3. Firms' adaptation strategies

As discussed, minimum wage increases have direct impacts on business costs and competitiveness. Compounded by market competitiveness and barriers to adjusting product output prices, companies can face declining profit margins. As a result, businesses are compelled to find ways to adapt to minimum wage adjustments.

A prior study by Nguyen (2017b) showed that under minimum wage pressure, companies tended to increase assets, particularly fixed assets, to offset rising labour costs. The results of the qualitative component of this research also indicate that businesses commonly invest in machinery and production technology to boost productivity, reducing dependence on labour and thus mitigating the impacts of minimum wage increases. A representative from a large textile company noted that "most companies are quite proactive about investing in equipment". Even for firms with limited resources, industrial improvements to boost capacity are prioritized. Interviewed businesses said these investments economically benefited companies by enhancing labour productivity. In the words of a textile company representative: "Instead of needing 10 people to load one container as before, now we've invested in an automated conveyor system, we only need five people to do it". Increasing productivity helps companies reduce production costs per unit, hence "aligning with cost and balancing cost and profit".

Moreover, it was also reported by employers' representatives that businesses also focus on reviewing and cutting non-essential costs. Commonly, businesses secure orders first and produce later, making it challenging to adjust selling prices when the minimum wage changes. A company representative said that when a company raised employee wages, "but export prices do not go up", it naturally led to a decrease in profit. Thus, it is incumbent on the company to review costs that can be reduced to offset the minimum wage increases. A textile company representative said: "This year, costs have risen by 7 per cent based on the minimum wage increase, but now the boss wants to reduce costs by 5 per cent. So, what costs can be reduced? For example, electricity, water, stationery, and purchasing costs. Then the procurement department will calculate based on its budget. It will start listing items, like using thinner paper instead of the type we used before, reducing factory costs by 2 to 3 per cent".

While Clemen (2021) highlighted that one way companies could adapt to wage increases was by adjusting working conditions, such as raising work output targets, this was also reported by a textile company during interviews for this study. Specifically, alongside adjustments in piece-rate wages and social insurance contributions, production targets for employees to achieve performance bonuses can be raised. In one textile company, "Previously, its [the company] set a target of 800 production items per line for piece-rate pay, now it is 850 or 900 items, to see how well employees respond. At that point, our workers must be more diligent, they must work harder". In another textile company, the union can organize competitions or campaigns to motivate employees and "if they increase productivity, then the gains

can balance out the wage increase costs, so it does not impact the company too much", said the union representative.

In addition, qualitative data also shows that zone-based minimum wage impact decisions on where to invest new factories. According to respondent firms, choosing a location and region with a low minimum wage rate can help save labour costs, as even though minimum wage differences between zones may not be high, they are significant when considering the scale of labour and long-term development of the firm. In addition, as areas in lower wage zones are often rural, they are assessed by firms as having abundant sources of young labour compared to other regions. Although qualitative data obtained in this study are limited, it outlines the need for further research on the potential of minimum wage policies to attract investment to less economically developed regions, thereby reducing regional development disparities in Viet Nam.

> "Actually, that [the zone-based minimum wage policy] is also a factor to consider, because firstly, it does impact costs. For areas where wages and costs are low, it also has advantages in reducing operating costs. And secondly, it is also easier to recruit workers".

Source: Quotes from qualitative interview participants.

▸ 5.2.2. Perceptions of minimum wage impacts on workers

This section looks at the multi-spectrum minimum wage impacts on workers, encompassing income, social insurance benefits, workers' participation in wage negotiations at the firm level, and labour mobility between wage zones.

5.2.2.1. Impacts on workers' income

While the study's quantitative data suggest that minimum wage increases leave minimal imprints on workers' monthly wages, qualitative data reveal that adjustments may impact individual workers' incomes differently, depending on company wage determination and adjustment mechanisms (see Appendix 3 for details on firms' wage settings).

According to qualitative interview results, seven out of 10 firms increased monthly basic salaries for all workers by VND280,000–300,000 immediately after the latest decree[17] stipulated similar increases in minimum wage rates by zones. This adjustment had an immediate impact on workers' incomes. For those paid on a time-based basis, actual monthly incomes increased by an amount equivalent to the basic salary rise after statutory payroll deductions, as the basic salary is part of the monthly income. The absolute increase is the same for all workers, regardless of wage coefficient or level. Additionally, at some firms, overtime income also inched up, as it is based on the average hourly basic salary. For piece-rate workers, basic salary impacts were dependent on productivity. High-productivity workers saw little change in monthly incomes, while low-productivity peers benefited from the increase due to company "wage compensation" rules (see Appendix 3). This rule typically applies to junior workers who are inexperienced and lower-skilled, hence they are unable to boost productivity to minimum levels. This "wage compensation" rule could explain the positive impact of the minimum wage on low-income workers, which is highlighted in some recent studies such as Nguyen (2024), Saltiel and Urzua (2020), and Dube (2019). Moreover, there are also viewpoints that wage increases "are also a motivation for them [low-productivity workers] to try harder and concentrate more", thereby increasing their labour productivity and income.

In addition, other company responses can impact workers' income, though not immediately following a minimum wage adjustment. For instance, three out of 10 interviewed firms did not raise wages on 1 July 2024, due to a policy of periodic wage adjustments to ensure employees' basic salaries are not below the mandated minimum wage. Some firms use the zone-based minimum wage as a basis for setting unit labour costs. Therefore, whenever the minimum wage is adjusted, the firms said that they would also "have to consider have to consider reviewing the unit labour cost". In other words, since firms use the minimum wage as a reference in wage settings, minimum wage increases will have certain impacts on workers' incomes even if firms do not make immediate wage adjustments.

In short, minimum wage increases have certain positive impacts on workers' incomes when firms adjust wages to ensure compliance with the law or

[17] Decree No.74/2024/ND-CP took effect on 1 July 2024.

when they use the minimum wage as a reference in their wage adjustment policy. Additionally, the way firms adjust wages will influence the extent and nature of the minimum wage's impact on workers' income.

However, research results also indicate that the minimum wage has limited impacts on workers' income, as it remains relatively low compared to most workers' actual wages. In fact, while firms use the minimum wage as a reference, they still set wages based on labour market competition. For example, a southern garment company established a salary scale where the initial level matches the minimum wage, but junior and unskilled workers were considered for the higher salary level as the first level was too low. Sharing the same view, respondents from other firms confirmed it was challenging to recruit workers with rates equivalent to the current minimum wage level. In cases where the State does not regulate a minimum wage, the lowest company salary scales are determined to be "appropriate with competitive wages in the market" (IDI_FR_TX1). In addition, increasing incomes should come from technical improvements and productivity increases instead of basic salary rises or unit labour costs.

> "The zone-based minimum wage is generally the basis for paying for the simplest jobs, without any training. Secondly, it provides a basis for us to have a salary scale so we can calculate social insurance contributions. Actually, the salary here is not lower [than the zone-based minimum wage]. If in [name of locality], we paid that level now, no one would work for us".

Source: Quotes from qualitative interview participants.

The study also explored worker perspectives on minimum wage levels and the correlation between wage growth and rising living costs. Most workers in urban areas (wage zone 1) believed that the current minimum wage was low compared to living costs, especially for migrant workers who must bear additional housing costs. Some workers even asserted that their current average income, including overtime pay, only covered basic essentials, with savings out of reach unless they tightly managed spending. In contrast, some respondents in rural areas (wage zones 3 and 4) saw living costs as relatively low in their regions, as workers were locals who could meet basic living needs. This assessment is also consistent with the ILO[18] and Global Living Wage Coalition[19] estimates on living wages in Viet Nam.

> "For a couple with two kids, and the costs up here in the city, we'd probably need about 20 [million VND] to have a relatively comfortable living. Like here, we have to buy even basic things like vegetables, right? But back in the countryside, even if their wages are lower, they save a lot on things like that and don't have nearly as many expenses as we do".

Source: Quotes from qualitative interview participants.

Furthermore, many respondents argued that as minimum wage increases were insufficient to counteract rising costs of living, their quality of life was diminished. To ensure that the minimum wage policy genuinely improves workers' quality of life, appropriate measures to regulate prices and control inflation are necessary.

[18] ILO. 2021. "Estimating the needs of workers and their families in Viet Nam". International Labour Office – Geneva.

[19] Do Quynh Chi, Nguyen Huyen Le, Richard Anker, Martha Anker. 2023. "Living wage report: Minimum wage region 1, Viet Nam". Anker Research Institute.

> "I remember in 1995, the basic salary when a foreign enterprise came to Viet Nam was US$45, about VND500,000 per month. However, at that time, [the] gold [price] was only VND300,000 per mace, and real estate was also very cheap. The salary was only a bit more than VND500,000, but it was enough to provide for two children. One person working could support two children. After 30 years, the salary is now around VND5.3 million, only slightly more than half a mace of gold, and the price of housing has increased by tens, hundreds of times compared to before" .

Source: Quotes from qualitative interview participants.

In summary, lifting minimum wage increases the nominal income of workers to a certain extent. Given that current minimum wage are low and the rate of increase may not keep pace with inflation, the minimum wage policy might not effectively enhance low-income workers' quality of life as intended. However, increasing the minimum wage partly improves the social insurance benefits as it boosts basic salaries. Moreover, companies commonly use the minimum wage as a benchmark for setting wages, which can provide a foundation for workers to negotiate salaries with employers, as discussed in the following sections.

5.2.2.2. Impacts on workers' social insurance benefits

As discussed, by acting as a base for social insurance calculations, the most direct impact of minimum wage on employees is boosting their social insurance contributions, thereby increasing related benefits. The majority of respondents, from experts to workers, viewed the minimum wage policy as being closely linked to social insurance.

Qualitative data shows that workers generally believed that increasing social insurance contributions benefited them, especially older workers who were closer to retirement age and their pension. Many workers suggested that raising the minimum wage was beneficial as firms must contribute more to social insurance. Compared to company contributions, the extra amount to be paid for social insurance following adjustment to the minimum wage is not a major drawback.

> "[With a] higher zone-based minimum wage, as workers, we don't pay much, only a little bit more than 10 per cent. The company pays it all. But I am the only one who benefits from it. So, I think the higher [the minimum wage], the better. It's that simple".

Source: Quotes from qualitative interview participants.

On the other hand, younger workers tended to be indifferent to how much of their wages was used for social insurance calculations. Instead, they were more concerned with how much money they received every month, but "are fine with however much the firm pays [for social insurance]" .

> "We often look at the payroll but don't really notice the exact details of small increases. When we pull up the payroll, we just pay attention to the total amount - if it's higher, that's what catches our eye. The small details don't matter as much; we just know that our salary increased this month. There might be a notice posted saying 'your salary has increased this month' or something similar. But in the end, what really matters is seeing that our total income is higher—that's what makes us happy".

Source: Quotes from qualitative interview participants.

This point of view dovetails with research findings on the Social Insurance Law in Viet Nam. Accordingly, workers tended to believe that without social insurance, they would be entitled to all money earned each month, and thus "their social insurance benefit, part of which is the monthly deduction of the money they earn, is a kind of saving, or their own financial safety net" (Nguyen 2020). This is due to the lack of personal financial savings from their monthly income, with most spent on living costs. This also leads to a "sense of uncertainty and vulnerability", leading them to think a pension is "too distant and abstract from their everyday struggles" (Nguyen 2020). These thoughts were also echoed in some qualitative interviews for this research. Hence, while workers may be aware of the benefits of social insurance policies, their personal situations might influence how they approach social insurance policies. Hence, to elicit a more positive view of the social insurance scheme and subsequently minimum wage policies, different conditions that influence workers' perceptions need to be examined to offer appropriate solutions.

5.2.2.3. Impacts on workers' participation in wage bargaining at the firm level

Qualitative data indicates that when the minimum wage is adjusted, most workers – except those who rely entirely on their representatives or labour unions, will engage in various actions to promote wage negotiations with employers. Some "ask their managers or directly ask human resource staff" to "get information" about salary increases. Other workers "check with other companies to see how much they're paying and how much they've increased" as a basis to engage their firms if wage increases are lower than at other companies. At some firms, there is even a "wave" of workers asking company leaders directly about wage adjustments.

These employee actions have promoted dialogue between employee representatives and employers in wage negotiations. Many company representatives noted that workers responded swiftly to information about minimum wage rises, which requires timely responses to disseminate information and engage in dialogue. For example, workers may "work without enthusiasm", "work while anxiously waiting [for wage increase], affecting productivity", "work carelessly, work under duress" or "have opposition", in the worst case, "it can lead to stoppages and strikes".

In response to potential disruptions, firms often proactively prepare and conduct dialogue with employees before or immediately after receiving information about minimum wage adjustments. Such dialogue includes meetings with employee representatives to collect opinions, disseminate information to all employees about wage policies and engage the labour union with company and/or employee representatives to sign labour agreements. While these dialogues primarily focus on harmonizing labour relations within the company, they can yield positive outcomes for workers, such as in the case of a southern textile company, as follows:

> "Representatives like us [labour union in the firm] also had to sit down with the Board of Directors. They were initially planning to raise it just halfway, but I pushed them to give the full increase. It's been three years since the last raise—it should have gone up at the start of the year, but it's only happening now in July. The government has already considered the firm's situation. They've only raised it after three years, whereas before it used to go up every year." (IDI_LU_TX1, on wage negotiations at his firm when the State increased the minimum wage in July 2024)

Source: Quotes from qualitative interview participants.

It is evident that increasing the minimum wage can positively influence wage negotiations between employers and employees or their representatives. This is in line with findings presented by Grimshaw et al. (2014), arguing that union power is crucial to achieving the "long-reaching ripple effect" of minimum wage adjustments on wage increases.

Previous studies have also shown that countries commonly have successfully adopted minimum wage policies as a tool to promote or support collective bargaining on wages. In Chile, where 21 per cent of private sector workers are covered by valid collective agreements, the minimum wage is the second most important reference after the inflation rate in wage bargaining due to its "lighthouse effect", especially for low-income workers (ILO 2023a). France is another example, where near-universal collective bargaining coverage combined with a relatively high minimum wage encourages interactions between the two institutions, boosting real wage growth for workers (Delahaie and Vincent 2021).

In Viet Nam, minimum wage and collective bargaining currently co-exist, alongside with other institutions in wage settings. However, despite comprehensive legal provisions in Viet Nam, collective bargaining remains limited in practice (ILO 2021). Collective bargaining agreements mainly take place at the enterprise level through grassroots trade unions, along with limited initiatives on sectoral and group-enterprise agreements. It is estimated that the proportion of salaried employees who benefited from genuine collective bargaining agreements by the end of 2018 was only 5 per cent (ILO 2021). With enterprises in Viet Nam often using the minimum wage as a reference point in determining wages, this has created a basis for promoting wage dialogue between employees and employers, although only at the enterprise level. With appropriate adjustments or settings, it is likely that the minimum wage policy will bring positive results for collective bargaining on a larger scale, thereby contributing positively to achieving decent wages. This is especially important in the context that employees in Viet Nam "are always in a weaker position than employers in negotiating and reaching agreements on issues related to labour relations" (MOLISA 2018).

5.2.2.4. Impacts on labour mobility between wage zones

In current literature, minimum wage's impacts on geographical labour mobility are ambiguous, with few studies investigating this relationship. A possible explanation is contextuality as any impacts on labour migration are dependent on how minimum wage is set and implemented in each country. One recent study by Shuang Ma et al. (2024), highlighting the relationship between minimum wage determined by provincial governments and labour mobility across regions in China, reveals that a 10 per cent increase in the minimum wage decreases the likelihood of local workers migrating out of the county by 1.52 percentage points. This effect is most pronounced among rural workers, those in poorer or less developed counties, and workers in more competitive markets. The study also shows a positive correlation between the minimum wage and expected earnings of local workers. A reasonable explanation for the main research results is that income expectations are a determinant in workers' migration decisions (Harris and Todaro 1970, as cited in Shuang Ma et al. 2024). Another study, in the United States, where different minimum wage are applied by each state, suggests that a high minimum wage can protect local workers from negative impacts on income and employment from immigrant workers (Edo and Rapoport 2019).

In Viet Nam, qualitative data from this study is insufficient to confirm the impact of minimum wage on labour mobility. However, some respondents mentioned a recent trend of migrant workers moving between wage zones. Accordingly, migrant workers from lower wage zones (rural areas) tend to return to their hometowns when the cost of living in higher wage zones (rural areas) rises and job opportunities in rural areas become more accessible, while rural workers are also less likely to migrate to cities. The primary reason cited by respondents for this trend was the increased availability of jobs in rural areas resulting from the development of industrial parks, industrial clusters, and investment projects.

This labour mobility trend may result from a combination of the earlier highlighted factors, such as workers' personal circumstances and local policy directions. Besides examining the link between minimum wage and labour mobility trends in Viet Nam, future research could also investigate the conditions or methods for setting or adjusting zone-based minimum wage systems to achieve specific policy goals.

6

Conclusion

▶ 6. Conclusion

6.1. Main findings from quantitative analysis

Viet Nam has steadily increased minimum wage levels over time. Nominal minimum wages increased more rapidly than inflation between 2012 and 2020, leading to substantial gains in real minimum wages. Following the COVID-19 pandemic, however, minimum wage increases became smaller, leaving real minimum wages largely unchanged. Overall, the ratio of average minimum wage to mean wage increased from 44 per cent in 2012 to a peak of 58 per cent in 2016, then declined to 50 per cent by 2023.

In 2023, 3.8 per cent of workers working at least 35 hours per week earned below the monthly minimum wage, and 3.3 per cent earned less than the calculated hourly minimum wage. Nationally, female, older, and less-educated workers are more likely to earn less than the minimum wage. Workers employed in households face the highest likelihood of earning below the minimum wage , while those in FDI enterprises and private firms are the least likely to do so. Regionally, the Central Highlands and Mekong River Delta show the highest proportions of workers earning below the minimum wage, particularly in the "Agriculture, Forestry, and Fishing", "Accommodation and Food Services" and "Food and Beverage Manufacturing" sectors.

Using regression analysis and LFS data from 2012 to 2023 to estimate the impacts of zone-based minimum wage, no significant effects on employment, unemployment, working hours or wages were found. Similarly, little impact was discerned on company performance – measured through variables such as turnover, profit, value added, labour size and wages – when data from 2012–22 was examined. Moreover, insignificant minimum wage impacts on individual employment or firm performance were found during the pandemic, with the relatively low and stable minimum wage versus market wage as a possible reason.

6.2. Main findinfrom qualitative analysis

While the quantitative analysis shows that minimum wage in Viet Nam have no significant effects on individuals or firms statistically, qualitative results reveal from enterprises' perceptions that minimum wage increases may raise firms' costs in the short term.

While minimum wage adjustments were found to not have large and immediate ripple effects on firms and workers, they can lead to actual higher social insurance contributions and wage costs for companies, which, in turn, raise labour costs. Material costs are also indirectly impacted by minimum wage increases. From the perspective of company representatives, these rising costs may impede a firm's competitiveness, especially in labour-intensive industries.

In response to potential impacts of minimum wage adjustments, several strategies were found to help firms mitigate rising labour cost pressures and enhance their adaptability in a changing economic environment. For instance, firms can invest in modern machinery and production technologies, review and reduce non-essential expenses, increase worker output targets and consider locations with lower minimum wage for facility expansion plans.

Conversely, workers reported that minimum wage rises can boost their earnings, depending on how firms reference zone-based minimum wage levels when constructing pay scales. However, numerous respondents posited that the current zone-based minimum wage was relatively low compared to the cost of living, and increases may not fully offset inflation. Thus, minimum wage increases may not have a substantial impact on workers' quality of life. Notably, the most prominent impact of minimum wage adjustments for workers was increased social insurance contributions, which subsequently raises related benefits. As a result, social insurance policy perspectives largely shape workers' views on the impact and effectiveness of zone-based minimum wage policies.

Additionally, the study's qualitative data indicates that minimum wage adjustments can influence wage negotiations within firms if unions or worker representatives actively engage in dialogue with company representatives. Furthermore, qualitative interviews suggested that further research on Viet Nam's zone-based minimum wage system was necessary, such as exploring the relationship between minimum wage increases and geographic labour migration, or the impact of zone-based minimum wage adjustments on firms' selection of locations for investment.

Finally, it is important to recognize that qualitative and quantitative approaches capture different dimensions of the impact of minimum wage policies. While qualitative research helps uncover the adjustment mechanisms and responses of firms to changes in the minimum wage, quantitative analysis focuses on estimating average effects across the economy. As a result, impacts that are confined to specific groups of firms or are relatively small in magnitude may be identified through qualitative evidence but may not be large enough to be detected in quantitative analyses.

6.3. Policy considerations

The 2024 ILO Tripartite Meeting of Experts on Wage Policies, including Living Wages, highlighted that wage-setting practices, including national minimum wage mechanisms, should be based on collective bargaining, tripartite social dialogue and take into account both the needs of workers, their families, as well as economic factors through utilization of robust data for evidence-based decision-making. As such, this assessment report reinforces the need for a sustainable national minimum wage-setting process that relies on strong and reliable data.

A set of policy recommendations, to inform and support decision-makers in the wage setting process at the national level, is proposed for action as follows:

- Minimum wage adjustments should follow a well-planned roadmap that takes into account both the needs of workers and their families, as well as relevant economic factors.

  This is also in line with the principles of ILO's Minimum Wage Fixing Convention No. 131. Viet Nam effectively maintained annual minimum wage adjustments during most of the past decade, offering a predictable roadmap for economic planning and development. Resuming these annual adjustments following pandemic disruptions remains important to ensure stability for both workers and businesses.

- Real wages should be considered during minimum wage adjustments to ensure the purchasing power of minimum wage is not only maintained but also in line with national economic growth and development.

  Although nominal minimum wage have risen over time in Viet Nam, real minimum wage have not increased substantially in recent years. To ensure that minimum wage could effectively raises the living standards of low-wage workers toward a just share of the fruits of national economic growth and development, controlling inflation is essential. Moreover, since women are overrepresented in low paying sectors and concentrated at the lower end of the wage distribution – where minimum wage jobs are prevalent, gender equity must be embedded within the wage setting process.

- To benefit firms, minimum wage policies should be effectively integrated with other aspects of strategic planning, particularly initiatives focused on improving the business environment and logistics.

  Wages are closely linked to national productivity, technology and skills development. Once the business environment is enhanced and added value is created, wages in general and minimum wage in particular have a strong basis to grow sustainably.

- To achieve decent wages that benefit both firms and workers, the establishment and implementation of minimum wage policies should be accompanied by measures to promote and enhance the effectiveness of collective bargaining.

  This goes together with suitable tools to allow parties at all levels to join and utilize the shared value from an effective bargaining process. As mentioned in the Social Dialogue Report 2024, social dialogue plays a critical role in advancing decent work and ensuring fair labour income distribution. The peak-level bargaining at the NWC together with other forms of social dialogue on wages at lower levels will help maximize the effectiveness of minimum wage

to the economy. Collective bargaining-both at the national, sectoral or enterprise levels-can effectively complement minimum wage policies, fostering a more equitable distribution of the gains from economic growth and contributing to sustainable development.

- The enhancement of data and research on wages and relevant economic factors is essential for wage-setting processes.
- Accessible information and data benefit decision makers and negotiators in wage setting at all levels, as underscored by the recent ILO publication Economic Factors for Wage Setting (ILO, 2025). This report illustrates how minimum wage, underpinned by robust data to realize an evidence-based approach to wage setting, maximize their benefits to workers, their families and economies.
- Finally, although this study finds no significant effects of minimum wage increases on employment or firm performance in the short to medium term, the qualitative evidence suggests that firms may respond to higher labour costs by adopting new technologies, improving productivity, or adjusting their business strategies. Such responses are likely to unfold gradually and may only become apparent over a longer time horizon. Future research is therefore needed to better understand the long-term effects of minimum wage policies, particularly on productivity growth, technological upgrading, and structural transformation of the economy.

▶ Bibliography

Abadie, A., S. Athey, G. W. Imbens, and J. M. Wooldridge. 2023. "When Should You Adjust Standard Errors for Clustering?" *Quarterly Journal of Economics* 138 (1): 1-35.

Alexandre, F., P. Bação, J. Cerejeira, H. Costa, and M. Portela. 2022. "Minimum Wage and Financially Distressed Firms: Another One Bites the Dust." *Labour Economics* 74: 102088.

Allegretto, Sylvia, Arindrajit Dube, Michael Reich, and Ben Zipperer. 2017. "Credible research designs for minimum wage studies: A response to Neumark, Salas, and Wascher." *ILR Review* 70, no. 3: 559-592.

Angrist, J. D., and J. S. Pischke. 2009. "Mostly Harmless Econometrics: An Empiricist's Companion." Princeton, NJ: Princeton University Press.

Broecke, S., A. Forti, and M. Vandeweyer. 2017. "The Effect of Minimum Wages on Employment in Emerging Economies: A Survey and Meta-Analysis." *Oxford Development Studies* 45 (3): 366-391.

Cameron, A. Colin, Jonah Gelbach, and Douglas Miller. 2011. "Robust Inference with Multi-Way Clustering." *Journal of Business and Economic Statistics* 29 (2): 238–49.

Clemens, Jeffrey. 2021. "How Do Firms Respond to Minimum Wage Increases? Understanding the Relevance of Non-Employment Margins." *Journal of Economic Perspectives* 35 (1): 51–72.

Delahaie, Vincent. 2021. "In: I. Dingeldey, D. Grimshaw, and T. Schulten, eds. *Minimum Wage Regimes: Statutory Regulation,* Collective Bargaining and Adequate Levels. London and New York: Routledge."

Del Carpio, X., Nguyen, C., Nguyen, H., & Wang, C. (2013). The Impact of Minimum Wages on Employment, Wages and Welfare: The Case of Vietnam. https://mpra.ub.uni-muenchen.de/id/eprint/83677

Do Quynh Chi, Nguyen Huyen Le, Richard Anker, and Martha Anker. 2023. "Living Wage Report: Minimum Wage Region 1, Vietnam." Anker Research Institute.

Draca, M., S. Machin, and J. Van Reenen. 2011. "Minimum Wages and Firm Profitability." American Economic Journal: Applied Economics 3 (1): 129-151.

Dube, A. 2019. "Impacts of Minimum Wages: Review of the International Evidence." Independent report. UR Government Publication, pp. 268-304.

Dube, A., and A. S. Lindner. 2024. "Minimum Wages in the 21st Century." NBER Working Paper 32878.

Edo, and Rapoport. 2019. "Minimum Wages and the Labor Market Effects of Immigration." *Labour Economics* 61: 101753.

Greene, William. "Fixed effects and bias due to the incidental parameters problem in the Tobit model." *Econometric reviews* 23, no. 2 (2004): 125-147.

Grimshaw, D., et al. 2014. "Minimum Wages and Collective Bargaining: What Types of Pay Bargaining Can Foster Positive Pay Equity Outcomes?" *British Journal of Industrial Relations:* 470–498.

Hansen, H., Rand, J., & Torm, N. (2016). "The impact of minimum wage adjustments on Vietnamese wage inequality." International Labour Organization.

Harasztosi, P., and A. Lindner. 2019. "Who Pays for the Minimum Wage?" *American Economic Review* 109 (8): 2693-2727.

Heckman, J., R. Lalonde, and J. Smith. 1999. "The Economics and Econometrics of Active Labor Market Programs." *In Handbook of Labor Economics,* vol. 3, edited by A. Ashenfelter and D. Card, 1865–2097. Amsterdam: Elsevier Science.

Herr, H., E. Schweisshelm, and M. H. V. Truong. 2016. "The Integration of Vietnam in the Global Economy and Its Effects for Vietnamese Economic Development." https://hdl.handle.net/10419/156308.

Hossain, 2023. "Trends, Causes, and Impacts of Labour Migration in India." IJCRT 11 (8): 2320-2882.

ILO. 2021a. "Estimating the Needs of Workers and Their Families in Viet Nam." International Labour Office, Geneva.

ILO. 2021b. "Viet Nam Industrial Relations Report 2019 – Towards Genuine Collective Bargaining." International Labour Organization, Hanoi.

ILO. 2021c. "COVID-19 and Rising Wage Inequality: Trends and Challenges in Thailand and Viet Nam." Research brief.). International Labour Organization, Geneva.

ILO. 2023a. "A Review of Wage Setting through Collective Bargaining." International Labour Organization, Geneva.

ILO. 2023b. "Minimum Wage Response to COVID-19 and Inflation Crises: An Asia-Pacific Region Overview." Policy brief. International Labour Organization, Bangkok.

ILO. 2024a. "Social Dialogue Report 2024: Peak-level social dialogue for economic development and social progress?" ISBN: 978922040654 (print), 9789220406557 (web PDF). International Labour Organization, Geneva.

ILO. 2024b. "Global Wage Report 2024–25: Is Wage Inequality Decreasing Globally?" ISBN: 9789220409763 (print), 9789220409770 (web PDF); ISSN: 2305-1450 (print), 2305-1469 (online). International Labour Organization, Geneva.

ILO. 2025. "Economic Factors for Wage Setting" ISBN: 9789220422441 (print), 9789220422458 (web PDF). International Labour Organization, Geneva.

Lancaster, Tony. 2000. "The Incidental Parameter Problem since 1948." *Journal of Econometrics* 95, no. 2: 391-413.

Martínez, M. J., and M. J. Martínez. 2021. "Are the Effects of Minimum Wage on the Labour Market the Same Across Countries? A Meta-Analysis Spanning a Century." *Economic Systems* 45 (1): 100849.

MOLISA. 2018. "Industrial Relations Report".

Nadvi, K., J. Thoburn, B. T. Thang, N. T. T. Ha, N. T. Hoa, and D. H. Le. 2004. "Challenges to Vietnamese Firms in the World Garment and Textile Value Chain, and the Implications for Alleviating Poverty." *Journal of the Asia Pacific Economy* 9 (2): 249–267. https://doi.org/10.1080/1354786042000207362.

Neumark, D. 2018. "Employment Effects of Minimum Wages." *IZA World of Labor.*

Newson, R. B. 2011. "Frequentist Q-values for Multiple-Test Procedures." *The Stata Journal* 10 (4): 568–584.

Nguyen, C. 2017a. "Do Minimum Wage Increases Matter to Firm Profitability? The Case of Vietnam." *Journal of International Development* 29 (6): 790-804.

Nguyen, C. 2017b. "Do Minimum Wages Affect Firms' Labor and Capital? Evidence from Vietnam." *Journal of Asian Pacific Economy* 22 (2): 291-308.

Nguyen, D. X. 2019. "Minimum wages and firm productivity: Evidence from Vietnamese manufacturing firms." *International Economic Journal,* 33(3), 560-572

Nguyen, T. P. 2020. "Coping with Precariousness: How Social Insurance Law Shapes Workers' Survival Strategies in Vietnam." Law & Society Review 54 (3): 544-570. https://doi.org/10.1111/lasr.12497.

Nguyen, D.X., 2021a. "Do minimum wages increase female employment? evidence from Vietnamese manufacturing firms." T*he International Trade Journal,* 35(5), pp.439-456.

Nguyen, D.X., 2021b. "Minimum wages and firm exports: evidence from Vietnamese manufacturing firms." *East Asian Economic Review (EAER),* 25(1), pp.99-121.

Nguyen, T. 2023. "Essays on the Minimum Wage Effects in a Low-Wage Labor Market." Ph.D. dissertation, Graduate School of Economics, Hitotsubashi University, Tokyo, Japan. Available at: https://hermes-ir.lib.hit-u.ac.jp/hermes/ir/re/82172/?lang=1.

Nguyen, C. V. 2024. "The Impact of Minimum Wages on Employment: Evidence from a Lower Middle-Income Country." The Developing Economies. https://doi.org/10.1111/deve.12419.

Nhung, Bich, and Tran, Thuy. 2018. "Vietnam's Textile and Garment Industry: An Overview." Business & IT VIII: 45-53. https://doi.org/10.14311/bit.2018.02.05.

Nose, M. 2020. "Minimum Wage, Market Imperfection, and Production Efficiency: Panel Event Study in Vietnam." *Market Imperfection, and Production Efficiency: Panel Event Study in Vietnam.* September 27, 2020.

Oxfam. 2019. "The Consequences of Low Wages - A Study on Fashion Suppliers in Vietnam." Report. Available at https://vietnam.oxfam.org/latest/publications/report-consequences-low-wages-study-fashion-suppliers-vietnam.

Pacheco, G., and V. Naiker. 2006. "Impact of the Minimum Wage on Expected Profits." *International Review of Applied Economics* 20 (4): 469-490.

Phan, H. 2017. "The Role of the Food Processing Industry in the Industrialisation Strategy and Development of Vietnam." Dissertation.

Riley, R., and C. R. Bondibene. 2017. "Raising the Standard: Minimum Wages and Firm Productivity." *Labour Economics* 44: 27-50.

Robinson, R. S. 2014. "Purposive Sampling." In Encyclopedia of Quality of Life and Well-Being Research, edited by A. C. Michalos, 2337. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-0753-5_2337.

Roth, Jonathan, Pedro HC Sant'Anna, Alyssa Bilinski, and John Poe. 2023. "What's trending in difference-in-differences? A synthesis of the recent econometrics literature." *Journal of Econometrics* 235, no. 2: 2218-2244.

Saltiel, Fernando, and Sergio Urzua. 2020. "Does an Increasing Minimum Wage Reduce Formal Sector Employment? Evidence from Brazil." *Economic Development and Cultural Change* 70 (4): 1403-1437.

Shuang Ma, Xuan Li, and Xi Wu. 2024. "Minimum Wage and Internal Labor Migration: Evidence from China." *Journal of Economic Behavior and Organization* 226: 106695.

Simes, R. J. 1986. "An Improved Bonferroni Procedure for Multiple Tests of Significance." *Biometrika* 73: 751–754.

Ye, L., T. H. Gindling, and S. Li. 2015. "Compliance with Legal Minimum Wages and Overtime Pay Regulations in China." *IZA Journal of Labor & Development* 4: 1-35.

▶ Appendices

Appendix 1. Key quantitative data

▶ **Table A.1. Regressions of employment variables of individuals aged 15–64 using the 2019–23 sample**

Explanatory variables	Dependent variables							
	Unemployed (yes=1, no=0)	Working during the past 7 days (yes=1, no=0)	Having a wage job (yes=1, no=0)	Having a self-employed work (yes=1, no=0)	Having job with labour contract (yes=1, no=0)	Having formal job (yes=1, no=0)	Log of working hours in the last 7 days (sample of working people)	Log of working hours in the last 7 days (all individuals)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log of minimum wage	0.0079	-0.0459	-0.1225	0.1082	0.1156	0.1539	-0.1789	-0.3705
	(0.0315)	(0.0545)	(0.2322)	(0.2409)	(0.1398)	(0.1179)	(0.2327)	(0.3158)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year-month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.1123	1.0720*	1.4857	-0.6574	-0.8424	-1.2603	4.6621*	5.1535
	(0.2608)	(0.4494)	(1.9173)	(1.9896)	(1.1546)	(0.9734)	(1.9237)	(2.6110)
Observations	2 108 086	2 108 086	2 108 086	2 108 086	2 108 086	2 108 086	1 989 030	2 108 086
R-squared	0.039	0.142	0.238	0.244	0.371	0.369	0.184	0.173

Note: Control variables include gender, age, education levels, and urban area of individuals.
Standard errors in parentheses. Standard errors are clustered at the district and year-month levels.
** p<0.01, * p<0.05.
Source: Authors' calculations using LFSs for the period 2012–23.

▶ Table A.2. Regressions of employment variables of wage workers using the 2019–23 samplesample

Explanatory variables	Dependent variables				
	Having job with labour contract (yes=1, no=0)	Having formal job (yes=1, no=0)	Log of number of working hours in the last 7 days	Log of monthly wage	Log of hourly wage
	(1)	(2)	(3)	(4)	(5)
Log of minimum wage	0.2243	0.2194	-0.0762	-0.3127	-0.2365
	(0.2164)	(0.2324)	(0.1553)	(0.2658)	(0.1831)
Control variables	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes
Province-year fixed effects	Yes	Yes	Yes	Yes	Yes
Constant	-1.7604	-1.9378	4.3514**	10.2834**	4.4657**
	(1.7957)	(1.9272)	(1.2880)	(2.2061)	(1.5211)
Observations	965 169	965 169	965 169	965 169	965 169
R-squared	0.401	0.397	0.192	0.362	0.358

Note: Control variables include gender, age, education levels, and urban area of individuals.
Standard errors in parentheses. Standard errors are clustered at the district and year-month levels.
** p<0.01, * p<0.05.
Source: Authors' calculations using LFSs for the period 2012–23.

▶ Table A.3. Regressions of firm outcomes using the 2019–22 sample

Explanatory variables	Dependent variables							
	Log of turnover	Log of profit	Log of value added	Log of asset	Export participation	Log of total wages	Log of social insurance payment	Log of wage per worker
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log of minimum wage	0.2901	-0.4503	-1.2182	-0.4092	-0.0009	-1.2646	-1.7285	-0.7152
	(0.4675)	(0.4758)	(0.8501)	(0.3752)	(0.0296)	(1.3529)	(1.1422)	(0.6303)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	5.2315	7.7792	15.4449*	11.7770**	0.0336	15.6331	18.0052	9.6629
	(3.8998)	(3.9630)	(7.0909)	(3.1297)	(0.2473)	(11.2943)	(9.5470)	(5.2617)
Observations	2 438 986	1 116 532	2 363 345	2 880 352	3 024 878	1 897 039	2 065 513	1 855 081
R-squared	0.046	0.133	0.220	0.050	0.197	0.434	0.169	0.610

Note: Control variables include dummies of the ownership types of firms.
Standard errors in parentheses. Standard errors are clustered at the district level.
** p<0.01, * p<0.05.
Source: Authors' calculations using VECs for the period 2012–22.

▶ Table A.4. Regressions of firm labour size and per-worker outcomes using the 2019–22 sample

Explanatory variables	Dependent variables						
	Log of the number of workers	Log of the number of female workers	Log of turnover per worker	Log of profit per worker	Log of value added per worker	Log of asset per worker	Log of social insurance payment per worker
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log of minimum wage	0.0601	0.2325	1.2993**	0.1657	-0.0387	0.7324	-0.9689
	(0.4222)	(0.2936)	(0.3039)	(0.5333)	(0.7085)	(0.4281)	(0.6086)
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	1.2237	-1.1644	-4.8736	0.7896	4.1213	0.8954	10.2116*
	(3.5155)	(2.4459)	(2.5355)	(4.4419)	(5.9095)	(3.5707)	(5.0862)
Observations	2 296 088	2 129 949	2 519 203	1 159 135	2 412 323	2 922 508	2 103 152
R-squared	0.079	0.097	0.023	0.118	0.251	0.040	0.207

Note: Control variables include dummies of the ownership types of firms.
Standard errors in parentheses. Standard errors are clustered at the district level.
** p<0.01, * p<0.05.

Source: Authors' calculations using VECs for the period 2012–22.

▶ Table A.5. Impacts of minimum wage on wage employment by gender and age groups

Explanatory variables	Dependent variable is 'wage employment'						
	Females	Males	Aged 15-29	Aged 30-39	Aged 40-49	Aged 50-59	Aged 60-64
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log of minimum wage	0.1457	0.0103	0.0721	0.1469	0.0439	0.0222	0.0494
p-value	(0.0072)	(0.8499)	(0.2645)	(0.0425)	(0.4403)	(0.6614)	(0.5560)
q-value	[0.0506]	[0.9152]	[0.5290]	[0.1946]	[0.6849]	[0.7717]	[0.7717]
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year-month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	-0.6882	0.4221	-0.7323	-0.4648	0.3259	0.2663	0.4763
	(0.1149)	(0.3423)	(0.1640)	(0.4409)	(0.5187)	(0.5988)	(0.9160)
Observations	2 478 344	2 647 449	1 379 431	1 393 259	1 261 898	900 565	190 638
R-squared	0.315	0.204	0.247	0.226	0.223	0.211	0.155

Note: Control variables include gender, age, education levels, and urban area of individuals.
p-value reported in parentheses, and q-value reported in brackets.
Standard errors are clustered at the district and year-month levels.
Source: Authors' calculations using LFSs for the period 2012–23.

▶ Table A.6. Impacts of minimum wage on wage jobs by urban/rural areas and education levels

Explanatory variables	Dependent variable is 'wage employment'						
	Rural areas	Urban areas	Less than primary education	Primary education	Lower-secondary education	Upper-secondary education	Post-secondary education
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log of minimum wage	0.0521	0.1328	0.0021	0.0886	0.0287	0.1155	0.0929
p-value	(0.4313)	(0.0063)	(0.9759)	(0.1693)	(0.6117)	(0.1176)	(0.0556)
q-value	[0.6849]	[0.0506]	[0.9759]	[0.3950]	[0.7717]	[0.3292]	[0.1946]
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year-month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	0.0130	-0.4833	0.5055	-0.1379	0.2374	-0.3765	-0.8495
	(0.9806)	(0.2213)	(0.3630)	(0.7901)	(0.6042)	(0.5312)	(0.0336)
Observations	2 949 658	2 176 135	715 661	1 124 868	1 519 742	1 026 142	739 341
R-squared	0.245	0.207	0.255	0.227	0.213	0.153	0.069

Note: Control variables include gender, age, education levels, and urban area of individuals.
p-value reported in parentheses, and q-value reported in brackets.
Standard errors are clustered at the district and year-month levels.

Source: Authors' calculations using LFSs for the period 2012–23.

▶ Table A.7. Impacts of minimum wage on log of monthly wage by economic sectors (1)

Explanatory variables	Dependent variable is 'wage employment'							
	Females	Males	Aged 15-29	Aged 30-39	Aged 40-49	Aged 50-59	Aged 60-64	Aged 60-64
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log of minimum wage	-0.0114	-1.0770	0.1474	0.0891	-0.0126	-0.1037	0.3270	0.0405
p-value	(0.9592)	(0.0134)	(0.5080)	(0.3209)	(0.9253)	(0.2773)	(0.1257)	(0.6095)
q-value	[0.9874]	[0.5360]	[0.9628]	[0.9628]	[0.9874]	[0.9628]	[0.8380]	[0.9628]
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year-month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	7.4572	16.6076	6.3660	7.3065	8.2604	8.5453	4.5155	7.4391
	(0.0001)	(0.0000)	(0.0006)	(0.0000)	(0.0000)	(0.0000)	(0.0103)	(0.0000)
Observations	181 266	17 365	78 077	236 941	58 300	219 825	31 113	326 132
R-squared	0.492	0.703	0.570	0.496	0.467	0.517	0.628	0.484

Note: Control variables include gender, age, education levels, and urban area of individuals.
p-value reported in parentheses, and q-value reported in brackets.
Standard errors are clustered at the district and year-month levels.
Source: Authors' calculations using LFSs for the period 2012–23.

▶ Table A.8. Impacts of minimum wage on log of monthly wages by economic sectors (2)

Explanatory variables	Dependent variable is 'log of monthly wages'						
	Wholesale and retail trade	Transport and rehousing and support activities	Accommodation and food service activities	Information and comunication	Financing, insurance, real estate and business services	Technology and science	Community, health, education, other services
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log of minimum wage	-0.0294	-0.1181	0.1019	-0.0345	0.1975	0.8124	-0.0468
p-value	(0.7387)	(0.2304)	(0.4296)	(0.8845)	(0.2972)	(0.0796)	(0.4877)
q-value	[0.9628]	[0.9628]	[0.9628]	[0.9874]	[0.9628]	[0.8380]	[0.9628]
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year-month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	7.5575	8.5569	6.5578	7.5257	5.2778	0.6100	6.8746
	(0.0000)	(0.0000)	(0.0000)	(0.0002)	(0.0009)	(0.8733)	(0.0000)
Observations	178 079	86 517	68 028	25 236	46 972	16 217	538 631
R-squared	0.520	0.470	0.494	0.566	0.507	0.505	0.401

Note: Control variables include gender, age, education levels, and urban area of individuals.
p-value reported in parentheses, and q-value reported in brackets.
Standard errors are clustered at the district and year-month levels.

Source: Authors' calculations using LFSs for the period 2012–23.

▶ Table A.9. Impacts of minimum wage on log of monthly wage by gender and age groups

Explanatory variables	Dependent variable is ' log of monthly wages'						
	Females	Males	Aged 15-29	Aged 30-39	Aged 40-49	Aged 50-59	Aged 60+
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log of minimum wage	0.0212	0.0210	-0.0265	0.1013	-0.0008	-0.0853	0.7503
p-value	(0.7615)	(0.7385)	(0.6967)	(0.1180)	(0.9920)	(0.3798)	(0.0345)
q-value	[0.9628]	[0.9628]	[0.9628]	[0.8380]	[0.9920]	[0.9628]	[0.6894]
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year-month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	7.2885	7.4445	7.5177	6.7849	7.3457	5.8336	33.1751
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.1312)
Observations	912 117	1 210 890	706 360	686 722	471 790	231 994	24 204
R-squared	0.443	0.391	0.409	0.439	0.466	0.440	0.489

Note: Control variables include gender, age, education levels, and urban area of individuals.
p-value reported in parentheses, and q-value reported in brackets.
Standard errors are clustered at the district and year-month levels.
Source: Authors' calculations using LFSs for the period 2012–23.

▶ Table A.10. Impacts of minimum wage on log of monthly wages by urban/rural areas and education levels

Explanatory variables	Dependent variable is ' log of monthly wages'						
	Rural areas	Urban areas	Less than primary education	Primary education	Lower-secondary education	Upper-secondary education	Post-secondary education
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log of minimum wage	0.0806	-0.0377	-0.0477	0.0547	0.0278	0.0314	0.0195
p-value	(0.3969)	(0.5993)	(0.6978)	(0.5903)	(0.6892)	(0.6347)	(0.7558)
q-value	[0.9628]	[0.9628]	[0.9628]	[0.9628]	[0.9628]	[0.9628]	[0.9628]
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year-month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	6.8856	7.6948	7.9644	7.2836	7.5186	7.3836	7.2442
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Observations	992 264	1 130 743	186 625	335 813	501 052	497 757	601 387
R-squared	0.374	0.400	0.476	0.415	0.364	0.309	0.351

Note: Control variables include gender, age, education levels, and urban area of individuals.
p-value reported in parentheses, and q-value reported in brackets.
Standard errors are clustered at the district and year-month levels.
Source: Authors' calculations using LFSs for the period 2012–23.

Table A.11. Impacts of minimum wage on log of monthly wages by employers' ownership and occupations

Explanatory variables	Dependent variable is ' log of monthly wages'										
	Public sector	Private sector	Household sector	FDI sector	Managers	Professional	High Professional	Clerk, officers	Service workers and sellers	Skilled workers	Unskilled workers
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)
Log of minimum wage	-0.0219	0.0052	-0.0396	-0.0416	0.2495	0.0033	-0.0509	-0.0819	0.0043	0.0234	-0.0316
p-value	(0.8006)	(0.9296)	(0.6632)	(0.6054)	(0.1114)	(0.9624)	(0.7098)	(0.6623)	(0.9628)	(0.7304)	(0.7702)
q-value	[0.9705]	[0.9874]	[0.9628]	[0.9628]	[0.8380]	[0.9874]	[0.9628]	[0.9628]	[0.9874]	[0.9628]	[0.9628]
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year-month fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	6.5387	7.7019	7.7263	8.5600	4.3171	7.4358	7.3264	7.4658	7.3825	7.7612	7.8661
	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0008)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)	(0.0000)
Observations	597 571	532 620	775 176	215 405	67 833	373 544	167 143	84 822	213 858	793 461	421 467
R-squared	0.381	0.440	0.430	0.476	0.547	0.376	0.409	0.515	0.372	0.392	0.430

Note: Control variables include gender, age, education levels, and urban area of individuals.
p-value reported in parentheses, and q-value reported in brackets.
Standard errors are clustered at the district and year-month levels.
Source: Authors' calculations using LFSs for the period 2012–23.

▶ **Table A.12. Impacts of minimum wage on firm profit by economic sectors (1)**

Explanatory variables	Dependent variable is ' log of profit'							
	Agriculture, forestry and fishing	Mining and quarrying	Manufacture of food and beverages	Garment, textile, leather products	Electronic products and electrical equipment	Manufacture of other products	Electricity, gas and water production	Construction
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log of minimum wage	-0.0658	0.0059	0.3993	0.3036	0.0334	-0.3496	1.1312	-0.3423
p-value	(0.9239)	(0.9934)	(0.3891)	(0.6286)	(0.9794)	(0.0557)	(0.1086)	(0.0382)
q-value	[0.9934]	[0.9934]	[0.9934]	[0.9934]	[0.9934]	[0.2785]	[0.4072]	[0.2785]
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	4.4869	4.5005	1.3715	1.8323	4.6077	7.0173	-4.4976	6.7395
	(0.4161)	(0.4277)	(0.7154)	(0.7222)	(0.6667)	(0.0000)	(0.4326)	(0.0000)
Observations	67 763	15 368	47 268	58 555	15 068	300 123	29 689	386 368
R-squared	0.390	0.297	0.239	0.350	0.485	0.292	0.329	0.121

Note: Control variables include dummies of the ownership types of firms.
p-value reported in parentheses, and q-value reported in brackets.
Standard errors are clustered at the district level.
Source: Authors' calculations using VECs for the period 2012–22.

▸ **Table A.13. Impacts of minimum wage on firm profit by economic sectors (2)**

Explanatory variables	Dependent variable is ' log of profit'						
	Wholesale and retail trade	Transport and warehousing and support activities	Accommodation and food service activities	Information and communication	Financing, insurance, real estate and business services	Technology and science	Community, health, education, other services
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log of minimum wage	0.0543	-0.1643	-0.0142	0.4595	-1.5795	0.1813	-0.0724
p-value	(0.8077)	(0.5001)	(0.9817)	(0.6694)	(0.0398)	(0.5466)	(0.8907)
q-value	[0.9934]	[0.9934]	[0.9934]	[0.9934]	[0.2785]	[0.9934]	[0.9934]
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	3.5343	5.4936	3.8200	0.8145	18.4135	2.2283	4.4729
	(0.0540)	(0.0063)	(0.4525)	(0.9274)	(0.0037)	(0.3680)	(0.3038)
Observations	988 782	152 130	71 393	48 898	66 842	204 061	129 573
R-squared	0.093	0.182	0.145	0.172	0.143	0.174	0.135

Note: Control variables include dummies of the ownership types of firms.
p-value reported in parentheses, and q-value reported in brackets.
Standard errors are clustered at the district level.
Source: Authors' calculations using VECs for the period 2012–22.

▶ **Table A.14. Impacts of minimum wage on labour size by economic sectors (1)**

Explanatory variables	Dependent variable is ' log of number of workers'							
	Agriculture, forestry and fishing	Mining and quarrying	Manufacture of food and beverages	Garment, textile, leather products	Electronic products and electrical equipment	Manufacture of other products	Electricity, gas and water production	Construction
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
Log of minimum wage	-0.1766	0.0438	-0.0189	-0.2091	1.8110	-0.0766	0.1230	-0.0725
p-value	(0.4854)	(0.8522)	(0.9321)	(0.4775)	(0.0007)	(0.5430)	(0.6841)	(0.6832)
q-value	[0.9053]	[0.9131]	[0.9321]	[0.9053]	[0.0105]	[0.9053]	[0.9053]	[0.9053]
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	3.4072	1.8470	2.3761	4.2417	-12.5088	2.7894	0.9507	2.7212
	(0.0954)	(0.3312)	(0.1894)	(0.0803)	(0.0045)	(0.0072)	(0.6993)	(0.0616)
Observations	137 159	34 704	101 214	114 054	28 996	582 230	51 754	717 220
R-squared	0.329	0.248	0.231	0.270	0.365	0.217	0.318	0.132

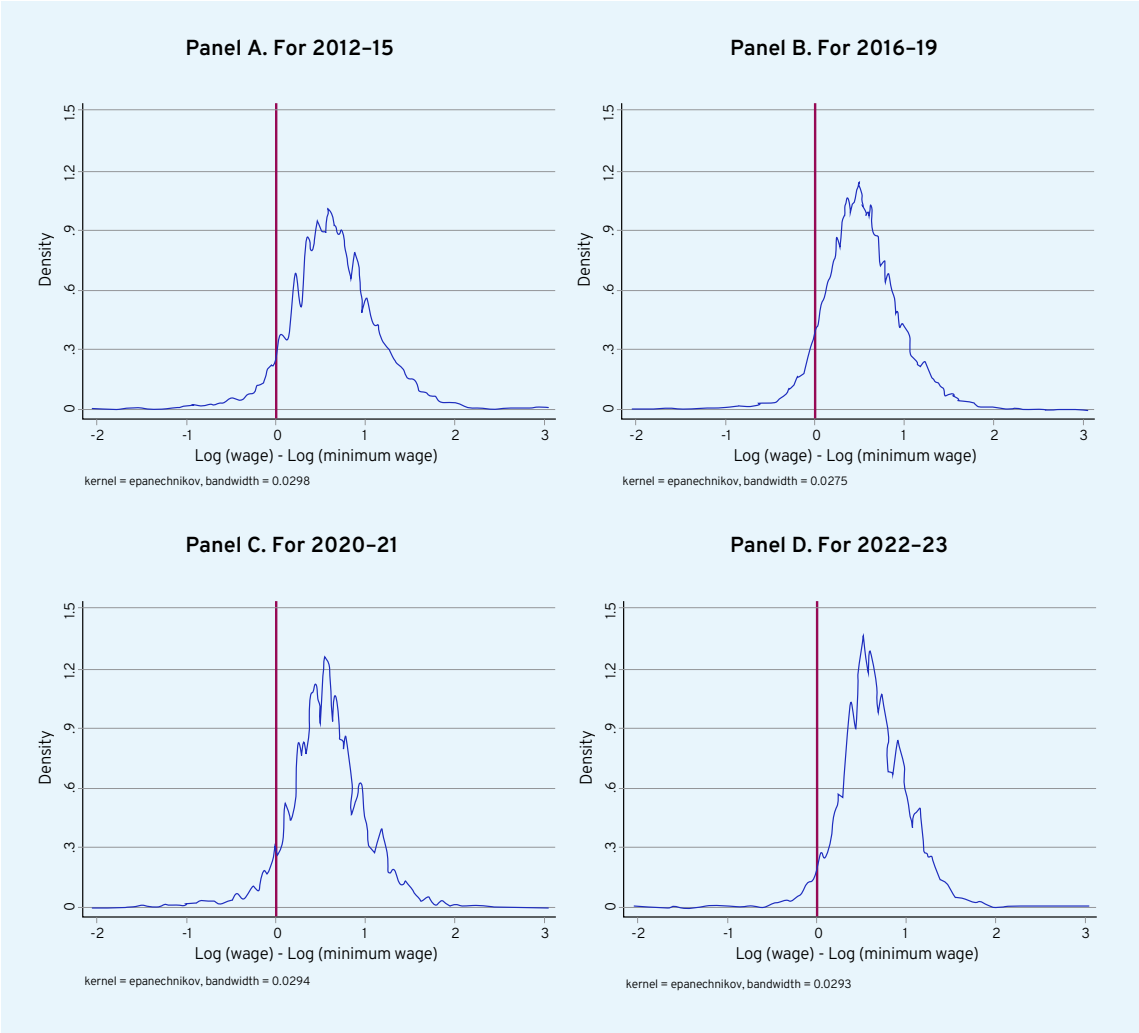
Note: Control variables include dummies of the ownership types of firms.
p-value reported in parentheses, and q-value reported in brackets.
Standard errors are clustered at the district level.
Source: Authors' calculations using VECs for the period 2012–22.

Table A.15. Impacts of minimum wage on labour size by economic sectors (2)

Explanatory variables	Dependent variable is ' log of number of workers'						
	Wholesale and retail trade	Transport and warehousing and support activities	Accommodation and food service activities	Information and communication	Financing, insurance, real estate and business services	Technology and science	Community, health, education, other services
	(1)	(2)	(3)	(4)	(5)	(6)	(7)
Log of minimum wage	-0.0477	-0.1947	-0.4000	-0.4086	-0.4082	-0.0526	0.0687
p-value	(0.5917)	(0.1682)	(0.1016)	(0.2114)	(0.0548)	(0.7846)	(0.7697)
q-value	[0.9053]	[0.6308]	[0.5080]	[0.6342]	[0.4110]	[0.9053]	[0.9053]
Control variables	Yes	Yes	Yes	Yes	Yes	Yes	Yes
District fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Province-year fixed effects	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Constant	2.0025	3.5298	5.1018	5.1125	5.1110	2.1227	1.2231
	(0.0062)	(0.0024)	(0.0112)	(0.0598)	(0.0037)	(0.1807)	(0.5282)
Observations	1 960 044	317 011	193 295	103 114	154 179	419 348	334 323
R-squared	0.064	0.106	0.115	0.163	0.130	0.074	0.054

Note: Control variables include dummies of the ownership types of firms.
p-value reported in parentheses, and q-value reported in brackets.
Standard errors are clustered at the district level.
Source: Authors' calculations using VECs for the period 2012–22.

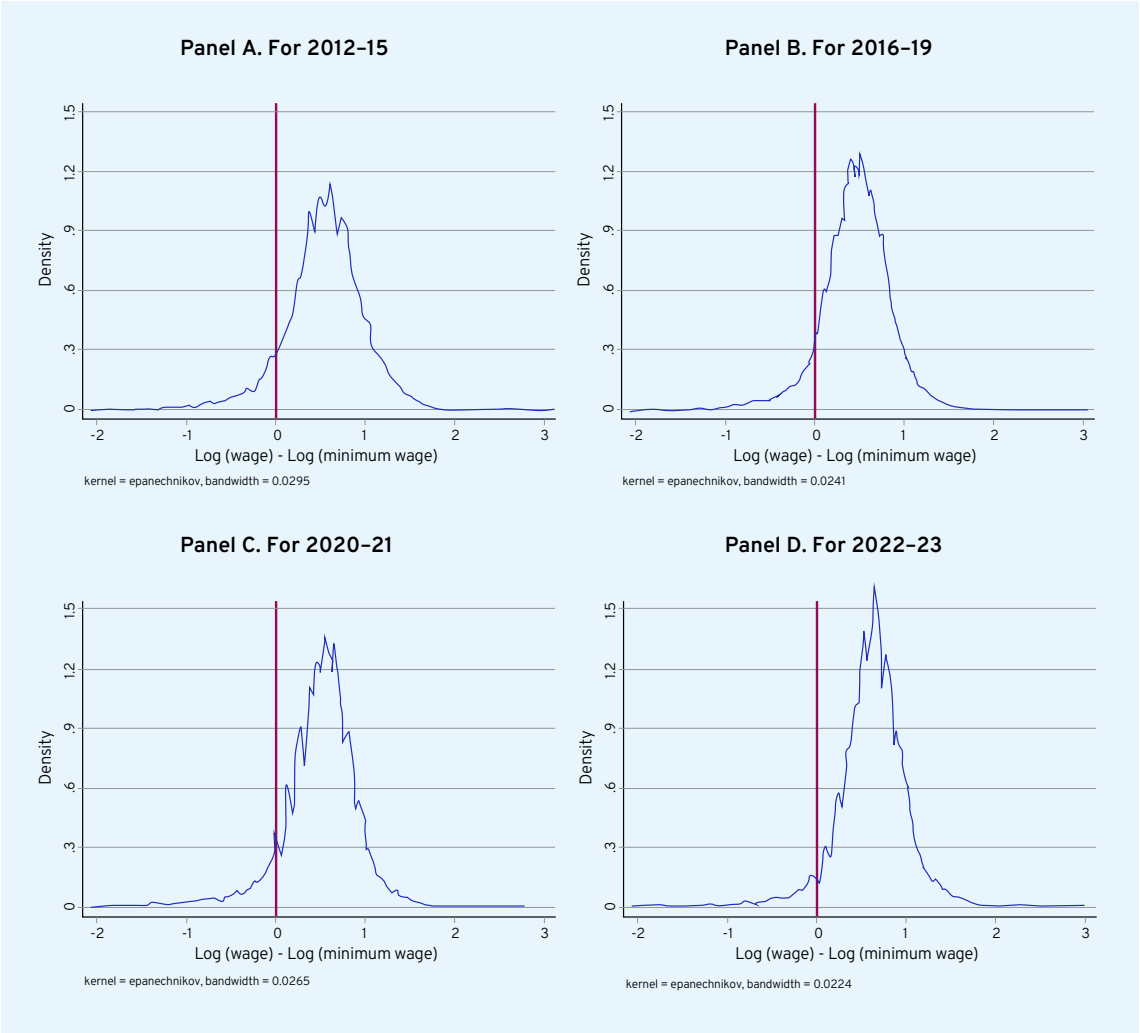
▶ Figure A.1. Kernel distribution of wages for urban areas



Note: The sample includes workers with at least 35 working hours a week.

Source: Authors' calculations using LFSs for the period 2012–23.

▶ Figure A.2. Kernel distribution of wages for rural areas



Note: The sample includes workers with at least 35 working hours a week.

Source: Authors' calculations using LFSs for the period 2012–23.

Appendix 2. Summary of qualitative interviews

▸ **Table A.16. Summary of qualitative interviews**

Respondent group	Sector	Age	Gender
Firm representative	Textile and garments	40	Male
Labour union representative	Textile and garments	50	Male
Worker	Textile and garments	32	Female
Worker	Textile and garments	25	Male
Worker	Textile and garments		Female
Worker	Textile and garments		Female
Firm representative	Textile and garments		Male
Worker	Textile and garments	28	Male
Worker	Textile and garments	39	Female
Firm representative	Textile and garments	34	Female
Firm representative	Textile and garments	46	Male
Labour union representative	Textile and garments	51	Female
Worker	Textile and garments	37	Female
Worker	Textile and garments	40	Female
Worker	Textile and garments	42	Female
Firm representative	Textile and garments		Male
Firm representative	Textile and garments	35	Female
Worker	Textile and garments		Female
Worker	Textile and garments	23	Female
Worker	Textile and garments	29	Female
Firm representative	Seafood processing		Male
Worker	Seafood processing	35	Female
Firm representative	Seafood processing		Female
Labour union representative	Seafood processing		Female
Firm representative	Seafood processing		Male
Labour union representative	Seafood processing	42	Female
Worker	Seafood processing	39	Female
Worker	Seafood processing	40	Male
Worker	Seafood processing	38	Female

Respondent group	Sector	Age	Gender
Worker	Seafood processing	46	Female
Firm representative	Seafood processing	27	Male
Worker	Seafood processing	37	Female
Worker	Seafood processing	47	Male
Worker	Seafood processing	27	Other

Appendix 3. Firms' wage settings

To analyse how the minimum wage affects workers in terms of income, it is essential to understand the firms' wage-setting mechanism as it determines the wage components, the wage level that workers receive as well as the points that workers can use for wage negotiation.

In general, the interviewed firms often apply one or both of two wage-setting mechanisms, which are time-based wages and piece-rate wages.[20] These two mechanisms are based on two of the three salary payment forms regulated in Article 96 of the Labour Code of the Viet Nam National Assembly (No. 45/2019/QH14, dated 20 November 2019).

In both forms, firms determine a monthly "basic salary" for employees. The basic salary is usually clearly stated in the labour contract and is one of the bases for calculating the amount paid for social insurance, health insurance, unemployment insurance, and union fees (hereinafter referred to as the statutory payroll deductions). Each firm establishes its own salary scale system, in which employees will receive a basic salary corresponding to a certain wage level depending on their skills and experience. The basic salary at the lowest level is usually equal to or slightly higher than the current zone-based minimum wage; each subsequent level is usually about 5-7 per cent higher than the next lower level. In addition to the basic salary, employees may be entitled to a number of allowances such as: diligence allowance, travel allowance, lunch allowance, seniority allowance, housing allowance, industry-based or occupation-based allowance. Depending on the provisions of the law and the company's policies, these allowances may or may not be added to the basic salary to serve as a basis for calculating the statutory payroll deductions.

The biggest difference between these two wage-setting mechanisms is in the way the employee's actual monthly income is determined. Specifically, in the time wage system, the actual monthly income is the total of the basic salary, allowances, overtime pay (if any), and productivity bonus (if any) excluding the statutory payroll deductions. In which, overtime pay is calculated by the hour and is equal to 150-300 per cent of the average hourly basic salary,[21] productivity bonus is calculated based on the coefficient of achieving/exceeding productivity according to the policy of each enterprise. Thus, the actual monthly income of time-based wage employees will increase in the following cases: (i) the basic salary in the salary scale increases, (ii) the employee is considered for a higher wage level and therefore receives a higher basic salary, or (iii) some other items (such as allowances, productivity bonus) increase.

In the piece-rate wage system, firms establish a unit labour cost table by stages for each product code, accordingly, the income of the employee will be calculated based on the number of items they produce in the month and the corresponding unit labour cost. During overtime, the unit labour cost will be multiplied by a factor of 1.5-3.0 compared to the original unit labour cost. The unit labour cost table is calculated and tested based on many technical factors before being officially applied. It is worth noting that many firms use the zone-based minimum wage as a reference to determine the unit labour cost.[22] In addition, to ensure that employees' income reaches a certain minimum level, firms often set up a rule of "wage compensation" for those with low labour productivity. Accordingly, firms determine a level, tentatively called "fixed wage" (including basic salary and some allowances), as a reference. In case an employee's piece-rate wage is higher than the "fixed wage", the employee will receive his/her piece-rate wage; conversely, if his/her piece-rate wage is lower than the "fixed wage", he/she will receive the "fixed wage". It can be seen that the actual monthly income of piece-rate wage employees depends mainly on the unit labour cost and their labour productivity rather than on the basic salary or the wage level.

[20] Of the 10 interviewed firms, three apply the time-based wage determination method, four apply the piece-based wage determination method, and three apply both methods of wage determination above.

[21] The average hourly basic salary is calculated by dividing the monthly basic salary by the number of standard working days (26 days/month) and dividing by the number of standard working hours (8 hours/day).

[22] Of the seven interviewed enterprises applying the piece-rate wage system, three use the zone-based and hourly/monthly minimum wage as the main basis for determining unit labour costs; the remaining four do not have information about this reference.

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