

## Income Inequality and Labor Market Regulations: A Comparative Analysis

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*Can business-friendly labor regulations also be good for reducing income inequality? Is it possible to have labor laws that make it easier to do business and at the same time promote a more equal society? Or is there a trade-off between supporting entrepreneurs and sharing the resulting gains? This note uses data from Doing Business to analyze the relationship between the business environment and income inequality, with a focus on the area of labor market regulation.*

In many places around the world, inequality is on the rise. Societies across continents have been registering increasing levels of domestic inequality over the past decades. The share of the total income going to the top 1% of the world's population increased by one fourth in less than four decades, going from 16% in 1980 to 20% in 2016.<sup>1</sup> Today, only 42 individuals possess the same wealth as the bottom half of the entire global population, which is more than 3 billion people.<sup>2</sup> The causes and consequences of the current rise in domestic inequality have been widely discussed.<sup>3</sup> One of the reasons why inequality is a serious concern are its impacts for poverty and development. In 2016, the World Bank announced that the goal of eliminating extreme poverty by 2030 could not be achieved without a significant reduction in inequality levels.<sup>4</sup> Often, the policies proposed to reduce inequality focus on health, education and social safety nets. In contrast, the potential contribution of the business climate to a decrease in inequality has received less attention.

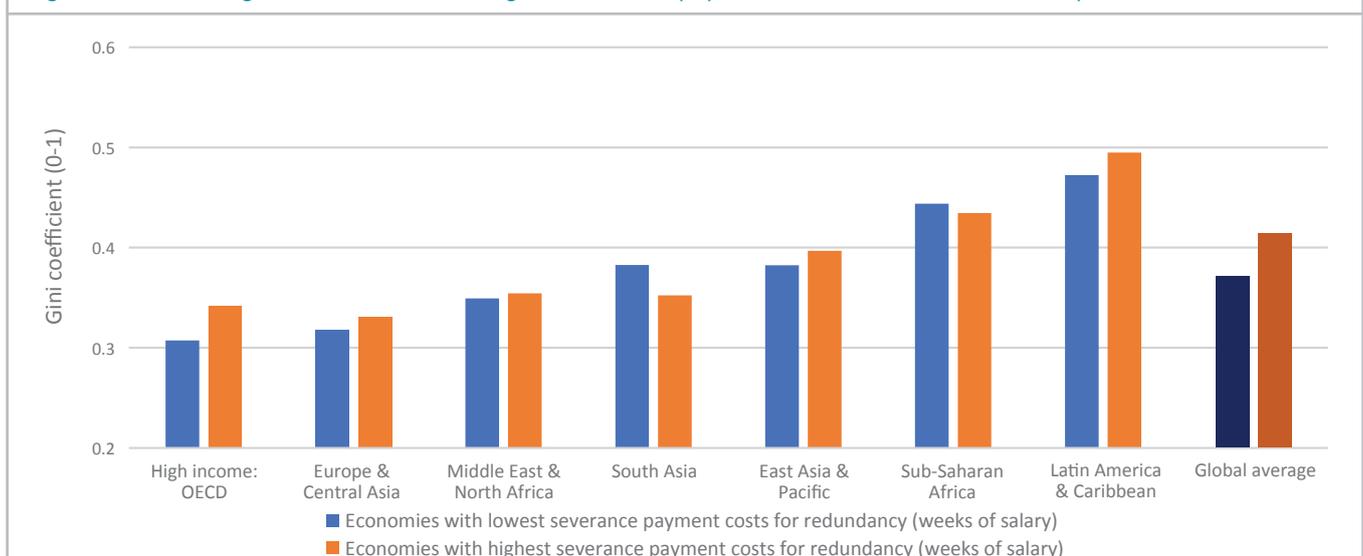
In principle, a society that makes it easier for firms to do business might also have a more equal income distribution because its laws and regulations create a level playing field for

both large companies and small entrepreneurs.<sup>5</sup> After all, when faced with strict regulations, wealthier entrepreneurs and larger firms are in a better position to hire intermediaries such as lawyers and consultants, to assist them in dealing with the regulatory costs and complexities of doing business. But what about the relationship between inequality, the ease of doing business and labor market regulations?

Labor market regulations encompass the set of rules that regulate hiring and firing, working conditions, as well as the rights and obligations of workers, their employers, governments and unions. Traditionally, many economists conjectured that they would either have no or negative but never positive effects on inequality – because they would either be nonbinding or would prevent the equalization of labor supply and demand and thus cause unemployment among low-wage workers.<sup>6</sup> More recently, a tentative, more nuanced consensus has formed around the idea that labor market regulations should strike a balance between guaranteeing the basic quality of jobs and workers' social protection and rights on the one hand, and avoiding excessive costs for businesses and rigidity in the labor market on the other.<sup>7</sup> From this perspective, they could at least potentially help lower inequality.

Based on data from *Doing Business*, this policy note investigates if labor market regulations that are good for businesses can also be useful tools for reducing income inequality. It provides some insights on the relations between inequality and a range of different labor market regulations, including employment protection laws, labor taxes and social contributions, and minimum wage policies.

Figure 1. In most regions economies with higher severance payment costs tend to be more unequal



Source: *Doing Business* database; World Development Indicators.

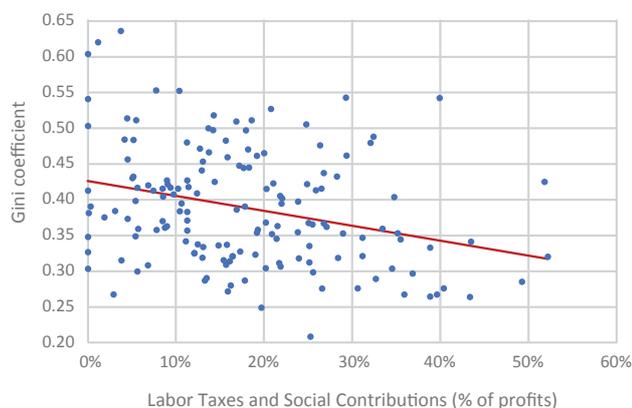
Note: Economies in each region were divided into two groups, based on whether the severance payment costs for redundancy was above or below the regional average. This cost is calculated based on the average of the minimum cost foreseen by law for the dismissal of workers with one, five and ten years of experience, based on the *Doing Business* case study. It is expressed in weeks of salary. The sample includes 153 economies for which data are available. Globally, the slope coefficient of a regression of the Gini coefficient on severance payment costs is 0.16. It is significant at the 1% level and it remains (marginally) significant after controlling for GNI per capita. Note that a Gini coefficient of 0 indicates perfect equality whereas a value of 1 indicates maximal inequality.

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Objective and disclaimer: *Doing Business* Research Notes present short analytical studies on business environment. The notes carry the name of the author and should be cited accordingly. The findings, interpretations, and conclusions are entirely those of the author. They do not necessarily represent the views of the World Bank Group, its Executive Directors, or the governments they represent.

**Figure 2. Labor taxes and social security contributions are associated with lower levels of income inequality**



*Source: Doing Business database; World Development Indicators.*  
*Note:* The figure compares the level of income inequality within an economy, as represented by the Gini coefficient (0-1), with the total amount of employer-paid social security contributions and labor taxes, measured as a percentage of profits. These are calculated based on the taxes and contributions applicable to the case study company analyzed by *Doing Business* (a medium-sized local firm operating in the manufacturing sector in each economy's largest business city). The sample includes 156 economies for which data is available and each dot in the figures represents an economy. The slope coefficient of a regression of the Gini coefficient on labor taxes and social security contributions is -0.21. It is significant at the 1% level and it stays significant after controlling for GNI per capita. Results are also robust for an analysis considering both employer- and employee-paid labor taxes. It is important to bear in mind that this analysis is limited to labor taxes and social contributions, and it does not incorporate other types of taxes such as the corporate and personal income tax, or sales taxes. A detailed study of the correlations of the tax system as a whole and income inequality would be beyond the scope of this policy note.

Importantly, this note is based on descriptive evidence and does not make causal statements regarding the impacts of reforms to the business environment or to labor legislation. Also, the note captures *de jure* labor regulations and not their *de facto* enforcement, a crucial distinction emphasized by Kanbur and Ronconi (2018). It is also important to note that the underlying analysis controls for GNI per capita and membership in broad country groups but does not incorporate other variables that might partially explain or influence the results obtained, such as for instance a country's overall tax regime, the organization and quality of its social security system, the efficiency and nature of its public spending, or even broader aspects such as a country's socioeconomic situation or the quality of its institutions.

### Box 1. Protecting workers through unemployment insurance: the case of Korea

Korea's Employment Insurance System aims at providing income support to unemployed workers in a form that is sufficient to secure their well-being but also encourages them to actively seek re-employment. The scheme was first introduced in 1995 shortly before the Asian Financial Crisis. However, its performance during that crisis was seen as inadequate due to lacking coverage and insufficient linkages with training programs and other active measures for promoting reemployment. Subsequently, an expansion of coverage to small and micro enterprises, significant investments in vocational counseling, and several other reforms were implemented to address these inadequacies – these have been credited as a contributing factor for the resilience of the Korean labor market during the 2008 Global Financial Crisis, as only very subdued increases in inequality were registered during that period.<sup>14</sup>

Therefore, the main objective of the note is not to provide final answers but rather to encourage a debate on the interplay between income inequality and different forms of labor market regulation.

### I. Employment protection laws and unemployment insurance

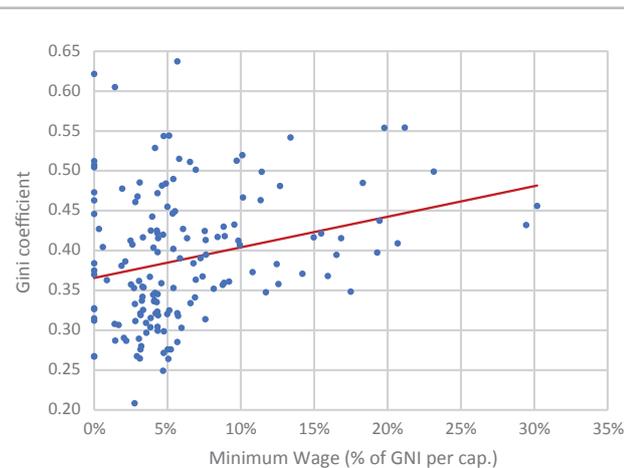
One measure that is used by many governments with the objective of reducing inequality is employment protection legislation. Theoretically, the impact of this type of labor market regulation on inequality is ambiguous. Some theoretical models predict that employment protection legislation will lead to a segmentation of labor markets into a protected, high-income sector and an informal, unprotected, low-income one. In this context, stricter employment protection legislation can decrease employment and increase inequality.<sup>8</sup> Other theories see wage bargaining between unions and employers as the central feature of the labor market and argue that the main impact of employment protection legislation is its contribution to securing workers' position if bargaining breaks down. Employment protection laws may be especially relevant for low-income workers, which would be one of the reasons why they can contribute to reducing inequality.<sup>9</sup> Considering this theoretical background, this section analyzes the relationship between inequality and mandatory severance payments as a central aspect of employment protection legislation. It also looks at inequality and unemployment insurance schemes, an alternative modality that aims to protect workers instead of jobs.

Empirically, an analysis based on *Doing Business* data demonstrates a positive correlation between severance payments and inequality. In most regions around the world, the average level of income inequality is higher in economies where the cost of severance payments for redundancy dismissals is higher (figure 1). This is consistent with the theoretical models of a segmented labor and might also be due to an adverse impact of severance payments for labor market flexibility and for the labor costs borne by smaller firms. High dismissal costs can be especially damaging for entrepreneurs with fewer resources, thus contributing to market concentration and more inequality. In addition, it has been argued that severance payments are neither a sufficient tool to compensate for the loss of a laid-off worker's income, nor a substitute for unemployment insurance schemes.<sup>10</sup>

The Korean scheme is financed by contributions of 0.65% of wages from both employers and employees. Employers pay additional contributions of up to 0.85% of wages for retraining programs. Benefits are generally paid for a period of 90 to 240 days to eligible workers that have been laid off involuntarily. The amount paid is 50% of a laid-off worker's previous wage, up to a cap. Importantly, there is an early re-employment allowance, that is, an incentive payment for accepting a job offer before the end of the benefit eligibility period. The scheme also closely integrates cash benefits and retraining programs to improve the skills of unemployed workers and labor market intermediation services that link jobseekers with vacancies.<sup>15</sup>

Recently, countries across East Asia and Pacific have looked at Korea when contemplating the introduction of an unemployment insurance program. For instance, in 2018 Malaysia introduced the aptly named Employment Insurance System, which shares not only the name and but also many features with the Korean program.

**Figure 3. A higher minimum wage is associated with higher levels of income inequality**



Source: *Doing Business* database; World Development Indicators.

Note: The minimum wage as a percentage of GNI per capita is calculated based on the minimum monthly wage mandated by law for a 19-year cashier at a local supermarket, as applicable in the *Doing Business* case study. The sample includes 155 economies for which data is available and each dot in the figure represents an economy. The slope coefficient of a regression of the Gini coefficient on minimum wage as a percentage of GNI per capita is 0.38. It is significant at the 1% level and remains significant after controlling for GNI per capita.

Perhaps a more promising way to lower inequality while avoiding the potential harms of a rigid labor market may be to combine the avoidance of overly tight hiring and dismissal rules with incentives for job creation and a strong safety net for workers, for instance in the form of unemployment insurance mechanisms.<sup>11</sup> Data from *Doing Business* show that the existence of an unemployment compensation scheme in an economy is indeed associated with lower levels of inequality. Low and lower-middle income economies in which this type of protection is available have an average Gini coefficient of 0.34, compared to an average Gini coefficient of 0.41 in economies of the same income grouping without such protection.<sup>12</sup> This pattern is consistent with findings from a model of individual wage dynamics by Bingley and others (2013) that permanent inequality in Denmark – often seen as *the* model of an economy with flexible but protected labor

markets – is lower among workers covered by unemployment insurance than among those not covered.<sup>13</sup> The Republic of Korea presents another interesting case as one of the first countries in East Asia and the Pacific region that introduced an unemployment protection scheme for workers and has continuously worked to improve it (Box 1).

## II. Labor taxes and social contributions

Among other reasons, labor taxes and social contributions typically exist to provide governments with the means to fund a social security system, assisting workers in situations of accidents, health issues, retirement, and unemployment. In theory, this could mean that they have the potential of contributing to reducing inequality. In line with two studies on the EU member states<sup>16</sup>, an analysis using *Doing Business* data suggests that employer-paid labor taxes and social security contributions are associated with a lower level of income inequality: globally, economies in which firms contribute more to labor taxes and social security tend to be more equal (figure 2). However, this does not mean that governments can create a more equal society by simply raising the rates of labor taxes and social contributions; the ability of tackling inequality also depends on broader issues such as a country's overall tax and social security systems, and even its economic structure and institutional setting.

In other words, if policies involving labor taxes and social contributions are to be adopted to address income inequality, it is vital to consider the specific situation of each country. While based on the evidence presented in this note, generally speaking, higher labor taxes and social contributions are associated with lower inequality, the precise relationship will depend on matters such as the progressivity of these taxes and the efficiency of the resulting spending. Moreover, an excessive increase in labor taxes and social security contributions could discourage firms to hire new workers or reduce incentives to provide formal employment. The findings do not imply a causation from higher taxes to reduction of inequality. Nevertheless, a negative correlation supports the evidence from international cross-country studies that well-designed labor taxes and social security contributions might be part of the set of policy tools used to address income distribution.

### Box 2. Minimum wage policies and inequality: the Chinese experience

During the first decades of China's reform and opening period, income inequality between residents of urban and rural areas increased substantially. From a very low base, inequality within rural and urban areas also went up. China's overall Gini coefficient rose from 0.38 in 1988 to 0.44 in 1995. By 2002 and 2007, it had further increased to 0.45 and 0.49, respectively.<sup>20</sup>

In recent years, the overall level of inequality has plateaued. However, China's high inequality is still a concern. Recognizing this concern, since the early 2000s, the government has introduced a series of policies with the objective of reducing inequality, including the minimum wage regulations introduced in 2004.<sup>21</sup> In recent years, minimum wages have seen a continuous increase: between 2014 and 2018, they increased by 23% to CNY2,420 (USD353) in Shanghai and by 19% to CNY2,120 (USD308) in Beijing.<sup>22</sup> Among China's various policies aimed at addressing inequality, the minimum wage regulations have likely been the most discussed. Some commentators argue that minimum wages can potentially

undermine enterprises' profitability, decrease the employment opportunities of low-wage workers and reduce China's comparative advantage derived from relatively low-wage labor.

The relevant literature generally suggests that China's minimum wage policies have in this case led to somewhat higher wages for low-wage workers but also to an increase in unemployment.<sup>23</sup> A noteworthy paper by Lin and Yun (2016) relies on city-level minimum wage panel data and a representative Chinese household survey to demonstrate that over the period from 2004 to 2009, increases in minimum wages led to a relatively small but statistically significant decrease in income inequality. More specifically, increases in minimum wages reduced the income gap between the median and the bottom deciles, all other things being equal.<sup>24</sup> Also using city-level data, Démurger and others (2018) further show that the introduction of China's minimum wage regulations in 2004 led to a small but statistically significant reduction in poverty.<sup>25</sup> These results imply that China's minimum wages have the potential to complement but not replace more targeted policies like the "dibao" social assistance programs as tools for reducing inequality.<sup>26</sup>

## III. Inequality and the minimum wage

When it comes to minimum wages, a balanced approach may again be ‘optimal’: both theoretical models and empirical research have shown that, depending on the institutional and socioeconomic context but in particular also the level at which the minimum wage is set, a minimum wage increase can be associated either with a higher or a lower level of inequality. From a theoretical perspective, raising the minimum wage could potentially impact inequality through two countervailing channels: on the one hand, it might mean an increase in the wages of low-income workers; on the other it could threaten their jobs – especially if its level exceeds low-income workers’ productivity. Thus, higher minimum wages might potentially contribute to a lower income inequality but only up to a certain level. At higher levels, further increases could lead to higher unemployment, informality and ultimately inequality.<sup>17</sup>

On a global level, an analysis using data from *Doing Business* shows a positive correlation between the minimum wage and income inequality (figure 3). A previous study by Calderón and Chong (2009) likewise found that higher minimum wages are on average associated with higher levels of inequality.<sup>18</sup> This finding does not rule out the possibility that, in certain cases, a minimum wage may be a useful tool for reducing inequality (Box 2). But it does highlight the fact that a minimum wage policy needs to be well-designed, context-specific and evidence-based in order to benefit low-income workers and avoid significant job losses.<sup>19</sup>

## Conclusion

This note argues that governments can address rising levels of income inequality not only by investing in areas such as social protection, health and education, but also by reforming their labor laws. Several aspects of labor market regulations may have effects on inequality, including minimum wages, employment protection laws, and labor taxes and social security contributions. If such regulations are balanced,

adequate and transparent, they can allow small businesses to flourish and promote more participation in the economy, while at the same time protecting workers and promoting income equality. Otherwise, inequality might increase – either because workers are unprotected, or as overly strict rules lead to unemployment and informality among workers, small firms and low-income entrepreneurs. A fruitful avenue for future research will be to help identify exactly the right, context-specific set of labor market regulations that may help governments to achieve the dual goals of reducing inequality and promoting an open and competitive business climate.

## NOTES

- Alvaredo and others 2018. The picture is more mixed if one focuses on the bottom of the income distribution. For instance, the World Bank (2018) shows that in 51 of the 91 economies for which relevant data are available, the income of the bottom 40 percent has been growing faster than the average income.
- Oxfam 2018.
- Milanovic 2016; Piketty 2004; Stiglitz 2012.
- World Bank 2016.
- For instance, a study by Chambers and others (2018) has shown that a costly and complex business start-up or licensing process is positively correlated with inequality, by forcing the poorest entrepreneurs into the informal sector or to give up their business plans altogether.
- Fernandez-Villaverde 2018.
- Betcherman 2015; OECD 2011; World Bank 2019.
- Bosch and Esteban-Pretel 2012.
- Koeniger and others 2007.
- World Bank 2017.
- OECD 2011.
- The Gini coefficient is a common measure of income inequality. It ranges from zero to 1, where zero represents complete equality (with income being equally distributed among the entire population) and 1 represents complete inequality (all income going to one person).
- Bingley and others 2013.
- Kim 2010.
- Lee 2016.
- Paulus and others 2009; Obadić and others 2014; Forteza 2016.
- Freeman 1996; Betcherman 2015. MaCurdy (2015) highlights another potential, more indirect channel of minimum wages’ impact on inequality: If firms react to higher minimum wages by raising prices, inequality impacts will depend on whether low-income or high-income households typically consume the goods and services produced by minimum wage workers.
- Calderón and Chong 2009.
- OECD 2015.
- Lin and Yun 2016.
- Li and others 2018.
- Doing Business database; Shanghai Municipal Human Resources and Social Security Bureau; Beijing Municipal Human Resources and Social Security Bureau.
- Fang and Lin 2015.
- Lin and Yun 2016.
- Démurger and others 2018.
- Naturally, other countries may have a limited ability to precisely replicate China’s policies, in view of the country’s unique growth experience and socioeconomic context.

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