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Study on the Effectiveness of Minimum Wage and the Necessity of Abolishment by Countries

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ABSTRACT

In this paper, the question of whether it is necessary for countries to abolish minimum wage policy is discussed in depth. This paper carries out 3 sections of theoretical discussion: the economic theory of minimum wage diagram, the impact on the economy's efficiency, and the impact on social quality. In the section of the economic theory of minimum wage diagram, this paper concluded it is not possible to avoid loss in employment while imposing a minimum wage due to the downward sloping of demand curve. However, it is also concluded in the next section, an imposing of minimum wage does not always decrease the economy's efficiency. However, lots of theories supported the idea of imposing a minimum wage that can actually improve efficiency. The impact on social equality is very complex, and greatly depending on the policy's quality and effectiveness in reducing inequality. The impact of minimum wage can be either positive or negative. A case study of minimum wage reform in Germany is then illustrated, analyzed. Germany, as a country with relatively less elastic labour demand, its minimum wage reform greatly improved its social quality level. Therefore, it is concluded, countries with specific achieved conditions should not abolish the minimum wage policy. However, the limitation of minimum wage is still pretty significant. As an imposing policy, a vast number of considerations should be taken into account.

Keywords: *Minimum wage, Germany minimum wage reform, Efficiency, Equity, Policy*

1. INTRODUCTION

A minimum wage of labour is the least amount of payment of workers usually set by government to protect low-skilled workers and ensure they can achieve a minimum standard of consumption; it is an application of a minimum price in the labour market [1]. The generally accepted goal of minimum wage laws is to alter the distribution of income in favor of low-income households. However, since a minimum wage will also disrupt low-wage labour markets, causing inefficiencies and imposing costs on some of the same workers the low is intended to help, an evaluation of the policy requires a weighing of the distributional benefits against the efficiency costs.[14] The question of what the impact of minimum wage on the economy is, has existed among the debate of policymakers for a long time, and it has always been a very controversial topic in labor economics. Discussions on this topic are usually combined with the evaluation of the level of efficiency and equity impacted by minimum wage on the economy. Even though there is vast literature has accumulated on the topic of minimum wage, an evaluation on its efficiency and impact is always worth devoting effort to. In this paper, discussion is carried out with a theoretical framework, combined with one case study on the impact of minimum wage reform in Germany, the question of whether it is necessary for countries to abolish minimum wage policy is mainly focused and evaluated.

2. ECONOMIC THEORY OF MINIMUN WAGE DIAGRAM

Imposing a minimum wage will inevitably cause job losses and unemployment. This can be illustrated graphically using a simple demand-supply diagram. We is the equilibrium price for labor in the market, the D curve shows the demand for labor by firms and the S curve shows the supply of labor by workers. There is a minimum wage Wm set by the government, which does not allow the price of labor to adjust to its equilibrium value, at the same time the quantity of labor employed cannot adjust to its equilibrium level as well. This will result in a surplus of labor (excess supply), since at Wm, Q of labor demanded < Q labor supplied, (Qd < Qs), the quantity of (Q1-Q2) shows the unemployment occurred in the market, and therefore there is a deadweight loss (DWL), representing the under allocation of resources and inefficiency, since the amount of labor between Qe and Q2 is not being used to participate in the production in the economy. With relatively few refinements, this simple model – in which a minimum wage above the free-market equilibrium wage for "unskilled" labour moves the economy back along the demand curve for such labour, reducing employment – really does summarize the heart of the matter[13].

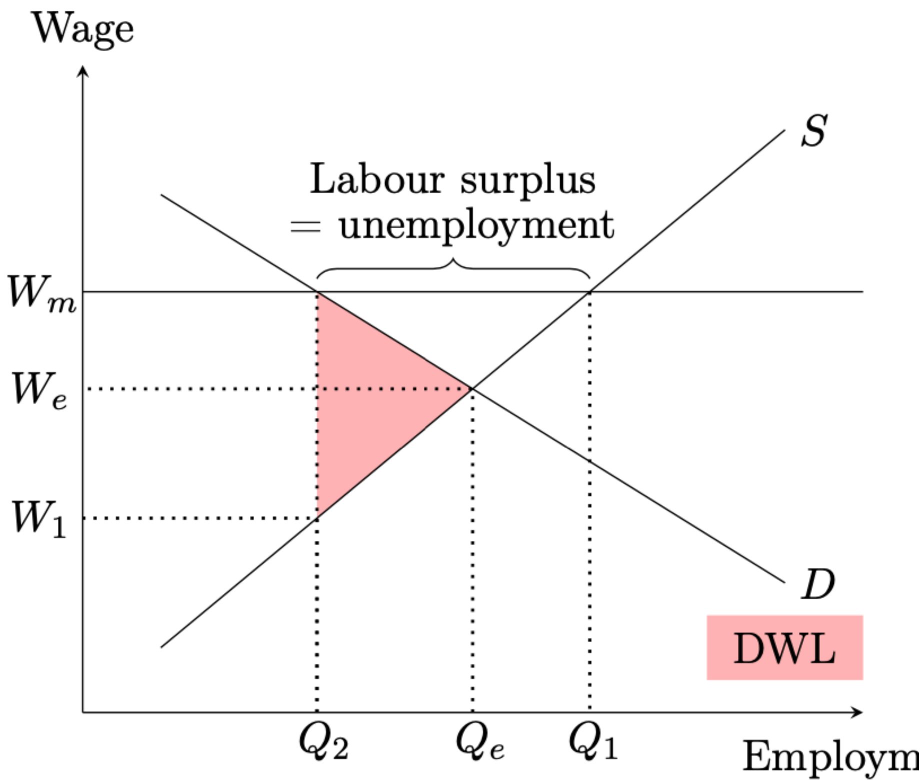

Figure 1: Closing the inflation gap in Brazil's Economy

3. IMPACT ON ECONOMIC EFFICIENCY

Christl (2019) states high minimum wages reduce demand for labor and destroy employment possibilities. Using data from 12 EU countries over the period 1980-2011, Christl (2019) modeled the relationship between the minimum wage and employment, which is conditional to other labor market characteristics, especially to the levels of workers' productivity and labor market regulations. This supports the theory illustrated above that a high minimum wage will inevitably lead to a loss in employment quantity and have a negative impact on labour demand.

However, there is another theory introduced by Alfred Marshall and formulated by George Akerlof in 1982 called "efficiency wage", and it has seen a large number of experimental studies supporting this hypothesis. In labor market, it argues that wages form in a way that is above the market-clearing price will lead to an increase in employee's productivity or efficiency. With the new minimum wage, workers' panic of losing their jobs will increase, which will likely result in better work ethic and productivity increases. Firms will expect to hire more efficient employees at the rising level of wage. This is also supported by the "shock" theory argument, Brown, Gilroy and Kohen (1982) have presented that if entrepreneurs cannot minimize their costs of production by impose of minimum wage, they might have to increase the productivity by either introducing new techniques or encourage workers to work harder. The "shock effect" simply shows the minimum wage pushed employers into greater productivity. Minimum wage may also remove the "X-inefficiency", introduced by Harvey Leibenstein. This inefficiency normally happens in a monopoly market due to lack of competitions, ascribed to things such as overinvestment and empire building, lack of motivations of workers. The new minimum wage will increase production costs for employers, therefore it pushes employers to reduce as much of the inefficient costs as possible, they are more likely to reform management, carry out better financial plans, improve productivity in order to maximize their profits. Hence, minimum wage can improve firms' efficiency.

4. IMPACT ON SOCIAL INEQUALITY

Minimum wage policy is also seen as a tool to promote lower income group equality. It is the distributive function's value that leads to around 90% of the countries in the world still operating a statutory minimum wage despite the warnings of job losses. With the new minimum wage level, workers who lost their low-wage jobs could find it profitable to increase their human capital to find new, better jobs, hence increasing the productivity of the economy[8]. Minimum wage is usually set especially in the benefit of the bottom groups of income distribution, three key indicators of pay equity include the incidence of low pay, gender pay equity and overall wage inequality.[6] For instance, data in Almon and Rubery's paper (1998) shows that in the early 1990s, the percentage of working women on minimum wage is more than twice the percentage of working men on minimum wage in most countries in EU. To this objective, if there was no minimum wage, female workers' income could actually be lower. Therefore, minimum wage has greatly supported the bottom group and increases earnings distribution equality.

However, imposing minimum wage can be controversial if some considerations might not be taken into account, which leads to highly ineffective policies and is associated with disadvantages and discriminations. For instance, despite the fact that gender pay equality is one of the basic indicators of minimum wage, female workers can also be the top group harmed by gender biased subsidies, since they are mostly viewed as economic dependents and recipients of "component" income. One of the most powerful ideologies underpinning women's lower wages is the notion that by virtue of their family role women are in less need of wage income than men. Men are seen– by employers, trade unions and governments – as being in 'need' of a living wage.[9] In the UK, for example, in-work benefits are provided to almost all adults aged over 25 in low-wage work unless in a relationship with another person in high paid work; this is a quasi-family-wage policy that discriminates against second earners, typically women, as well as young people in paid employment [7].Hence, in this sense, minimum wage based on discriminations could not improve equity in payments, but worsen it off.

5. ONE CASE STUDY ON GERMAN MINIMUM WAGE REFORM

Aiming to study the response of employment in real life situations due to change in the minimum wage, one case study of German minimum wage reform is carried out to evaluate this issue. In January 2015, Germany introduced a major labor market intervention: for the first time, a nationwide statutory minimum wage was implemented. (Previously, individual sector specific minimum wage agreements existed for specific industries) it was binding for nearly all 37 million dependent employees and, set at 8.50-euro gross per hour, it unfolded a substantial "bite": about 10 to 14 percent of the eligible work force earned less than the minimum wage in the year prior to the reform. [2] This has also had an impact on the behavior of employers, approximately 10.1% of the affected employers report that they have been cautious in hiring new workers, and 4.4% report that they have laid off workers. [3] This links back to the demand-supply theory above, there has been a surplus of workers in labor market, since the substantial cost is rising, more careful hiring decisions should be preferred by most employers. The employers might also decide to simply shift the working hours, instead of laying off workers or avoiding hiring more. Looking at typically contracted working hours, according to the data table in [3], it shows a reduction at the establishment level by 0.15 hours per week, which corresponds to a 0.4% decrease in typical contracted working hours. This suggests that firms adjust hours more easily in the short run but has provided impact on employment in the long run, since workers who had been laid off working-hours due to the impose of minimum wage, will need to find extra job for fulfilling the living financial need, therefore even though the rate of employment might not decrease much, lots of workers have turned to be underemployed, that will harm efficiency and productivity as well.

The labour demand elasticity is another important factor determining the response of employment with respect to the impose of minimum wage. According to model specification carried out by [3], the elasticity in Germany ranges between -0.2 and -0.4 which are in line with results from the minimum wage introduction in the UK presented [4]. Bossle and Gemer (2019) stated that there is a sharp increase in average wages by approximately 3.8-6.3% and a decrease in employment by approximately 1.7%. They have also concluded approximately 45,000 to 68,000 additional jobs could have been created in the absence of the minimum wage. This estimate is also in the range of other more recent studies that exploit regional variation to evaluate employment effects of the new German minimum wage, including[2] [5]. This result shows German as a country with relatively inelastic labor demand, with minimum wage imposed in the economy, it is inevitable to have job losses but the massive increase in average wages can be more significant, therefore leads to an improvement in equity. Bossler and Schank (2020) reported wage inequality has been falling since 2010 and in 2017 it is even below the level of 2000. It has also been shown by Vacas-Soriano and Carlos (2018), wage gains were significantly higher among the youngest and oldest age groups; employees with lower educational attainment; female employees; part-time employees; employees working in smaller companies; and employees in low-skilled occupational categories. These groups are at the bottom part of wage distribution, which is the main reason why their relative wage increase, and led to a fall in wage inequality.

6. DISCUSSION AND EVALUATION

To determine the value of minimum wage by simply evaluating the change in efficiency and equity is nowhere near enough, it is much more complicated in reality. Due to the downward sloping feature of demand curve, imposing a minimum wage will always cause levels of unemployment, where a critical value of the elasticity of labor demand plays an important role such that workers in low-paying jobs are better off for higher elasticities but worse off for lower elasticities. This critical value decreases with unemployment benefits and increases with worker's risk aversion. The level of harm for unemployed workers can also be very different between short term and long term; an unemployed worker's utility depends on how long a time he has been unemployed. Workers with relatively longer unemployment length would advocate for lower or no minimum wage, whereas workers with shorter unemployment length would like to raise it. In reality, most of the unemployed workers have access to unemployment benefits and both unemployment benefit and minimum wage involves transfers of resources and aim to decrease payment inequality. Countries with shorter unemployment length and/or inelastic labour demand should not abolish minimum wage since it shows less impact on employment but more significance on the rise of equity level. The case study on Germany above has clearly illustrated this situation. However, one must keep in mind that the overall economic climate was favorable when the minimum wage was first introduced and raised, this does not imply that effects necessarily need to be very different during an economic downturn.[11] When the overall economy is deteriorating, unemployment can rise to a greater issue and leads to higher personal and social cost such as severe financial hardship and poverty debt, homelessness and housing stress, health and education problem for children, higher crime rates, skill loss in labor market, etc.

7. CONCLUSION

After a comprehensive evaluation of ones' economy and labour market, countries with achieved conditions such as short unemployment length, inelastic labour demand and positive economic outlook, the minimum wage should not be abolished due to the great assurance of efficiency in promoting equity, as well as the full awareness of fewer job losses as a trade-off.

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