

# The Effect of Minimum Wage and Migration on Disguised Unemployment Rate in Indonesia

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## The Effect of Minimum Wage and Migration on Disguised Unemployment Rate in Indonesia

Imran Taufik<sup>1,2,#</sup>, Rahmatia<sup>1</sup>, Nursini<sup>1</sup>, Sanusi Fattah<sup>1</sup>

<sup>1</sup>(Department of Economics, Hasanuddin University, Makassar, Indonesia)

<sup>2</sup>(STMIK Handayani, Makassar, Indonesia)

Corresponding Author: Imran Taufik

**Abstract:** This study aims to determine the effect of minimum wage and migration on disguised unemployment rate in Indonesia both directly and indirectly through economic growth. The data used are panel data for the period between year 2011 and 2016 for 33 provinces in Indonesia using structural equation modeling (SEM). Results shown the composed SEM model has good fitness of index. Variables in the model, namely minimum wage and migration have significant effect on disguised unemployment rate in Indonesia with negative direction and not significant through economic growth. Presented information is important for government as disguised unemployment rate is an issue in Indonesia.

**Keywords:** Minimum Wage, Migration, Economic Growth, Disguised Unemployment Rate

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### I. Introduction

One of the problems of developing countries is unemployment therefore it should become a main macroeconomic goal. Basically, unemployment occurs due to an imbalance in labor market. Unemployment as an excess of labor supply resulting from the failure of the market economy. This shows that the number of workers offered exceeds workers requested.

High unemployment gives negative contribution to economic condition in one country. Bad impact of unemployment can be measured in terms of output lost for the entire economy. High unemployment means that labor resources are not used efficiently. Unemployment is related to social problems such as poverty, crime, violence, loss of enthusiasm and degradation. It can create tension and hatred between rich and poor which may leads to the emergence of clashes between communities and certain groups. Unemployment causes the level of national income and the level of prosperity and welfare of the people not to reach maximum potential. As in [1], lost output is the main cost of unemployment, and if the loss is very high it can cause an economic recession.

Open and disguised unemployment are a main issue in Indonesia. However, disguised unemployment is more complex as the number of this type of unemployment greater than open unemployment. Data from [2], open unemployment in Indonesia over 7,000,000 meanwhile disguised unemployment more than 30,000,000 from 118,000,000 people worked in 2016 with human resources and levels welfare is still low.

Based on the data from [2], in year 2011, the disguised unemployment rate (DUR) in Indonesia was 34.58 percent, and become 31.08 percent in year 2015 and 29.81 percent in year 2016. The disguised unemployment rate in average between 2011-2016 is 33.43 percent while the highest rate occurred in year 2012 (35.58 percent) and the lowest one is in year 2016 (29.81 percent). The high level of disguised unemployment is a reflection of the level of poverty and public welfare. Based on this condition, solution regarding the problem of disguised unemployment is needed including policy support as level of underemployment in Indonesia is quite high. The targets of economic development and people's welfare, among others, are shown to be one of the important indicators is the underemployment rate. For this reason, the purpose of this study is to determine the effect of minimum wage variables and population mobility on disguised unemployment in Indonesia, both directly and indirectly through economic growth.

### II. Literature Review

The theory and concept of disguised unemployment was first introduced and published by Joan Robinson (1936) in The Economic Journal under the title "Disguised Unemployment" [3]. Then it was developed by Rosestein-Rodan (1943) in a very famous scientific paper (The Economic Journal), namely: "Problems of Industrialization of Eastern and South-Eastern Europe" [4].

Disguised unemployment is a workforce that works but does not work according to normal working hours. Disguised unemployment is included in the category of work but they do not work in full or underemployment (under unemployment) in the sense that workers who work have not used all the ability to

work because working hours are relatively small (< 35 hours/week). The workforce is forced to work under normal working hours due to excess labor and lack of employment. Disguised unemployment increases parallel to the imbalances that exist in the labor market.

In the economy of a country shows disguised unemployment when productivity is low and too many workers fill up for a little work. Unemployment is shrouded due to too much labor for one type of work even though by reducing the amount of labor to a certain amount does not reduce the amount of production.

### 2.1 Minimum Wage Linkages, Economic Growth and DUR

The competitive labor market predicts that high minimum wage will cause job losses among low-skilled workers. The minimum wage set higher than competitive equilibrium wages will reduce employment for two reasons. First, employers will replace the more expensive less skilled labor for the use of other inputs, such as equipment or other capital. Second, higher wages imply higher prices, which in turn reduce demand for products and labor [5]. If there is an increase in the average wage level, it will be followed by a decrease in the number of workers requested, meaning that unemployment will occur. Conversely, the decline in the average wage rate will be followed by increased employment opportunities, so that it can be said that employment opportunities have an inverse relationship with the wage level.

High minimum wage increases spending on labor costs and output prices thereby reducing company profits. However, if the increase in minimum wages can increase the income of less skilled workers and maintain skilled jobs so that workers have a higher tendency to consume more due to additional income so that the increase in minimum wages will result in or increase the increase in GDP [6].

The wage rate reflects the level of productivity of labor that is contributed by the workers concerned to the company, so that with the increase in the wage level it is expected that the level of labor productivity will rise and then will increase the output of the company. When the wage level rises and is followed by increases in productivity of workers in almost all sectors causing an increase in minimum wages will have an effect on real GDP. In macro terms, aggregation of production increases in each sector will increase GDP for the country or GRDP for the region.

### 2.2 Linkage of Migration, Economic Growth and DUR

Migration theory was first introduced by Revenstein (1885) which became a migration law, one of which revealed that the main motive for people to migrate was economic motives. The occurrence of migration is an expression of changes in demand for site-specific facilities. Positive factors are beneficial factors if living in the area has a good job opportunity or climate. The negative factor is a lack of factors in the area so they want to move from that place. The difference in cumulative values between the two places tends to cause migration flows. Another motivation for people to do mobility is that survival is largely purely related to economics and welfare, releasing from the cycle of poverty and moving to open better opportunities for life [7].

Migration or population mobility can generate development in the socio-economic field and contribute to economic growth. Migration encourages people from poor backgrounds to come to areas where there are many better employment and economic opportunities (relatively developing destination areas rather than origin areas). Migration will play an important role in encouraging a growing and developing economic sector which includes manufacturing, construction and services as well as other business sectors. Migration can have a complex impact on various dimensions of the labor market including wages, employment, labor force participation and unemployment.

In another case, large amount of unemployment is in urban areas, as long as the income expected in urban areas is higher than in rural areas, rural people are willing to migrate to urban areas. In addition, life in urban areas (access to education, better health services and quality of infrastructure) also attracts rural workers to move to urban areas, increasing the workforce population in urban areas.

### 2.3 Linkage to Economic Growth and DUR

Theoretical propositions relating to output and unemployment are generally known as "Okun Law". Economists mention Okun's Coefficient in empirical relationship. Okun's law is an empirical study that measures the correlation between the unemployment rate deviation from its natural level and the output growth deviation from its potential. The existence of Okun's law also explains the relationship between unemployment and economic growth and vice versa, the original manifestation is pure statistical relations. This law has contributed but there is no consensus about the value of the Okun coefficient [8,9].

Economic growth and unemployment are closely related because of two interrelated concepts. The unemployment rate can affect economic growth, while the unemployment rate is also an indicator of the state of economic growth. Thus, there is a relationship between national income achieved (GDP) and the use of labor; the higher of GDP the more use of labor in the economy.

III. Research Method

The view of the new Keynesianism, the labor market is seen as something central. Efficiency wage theory focuses on wages as a goal to motivate workers. The company will be willing to pay wages above the market balance wages to ensure that workers work hard so they don't lose their jobs. The wages paid according to this theory are far above the balance wages, this aside from increasing productivity it will also lead to employee loyalty, making more qualified workers. According to this theory, companies pay high wages that will benefit companies because they can increase the efficiency of workers. The greater the demand, the greater the goods and services they will produce. The increase in production will increase the use of labor. A high minimum wage will have an effect on economic growth so that it can expand employment opportunities [1,10].

Neo-classical migration theory views migration as a form of optimal allocation of factors of production for the benefit of both regions between the area of origin and destination. In this perspective, "balanced growth", labor re-allocation from rural, agricultural to urban areas, industrial sector (inside or across borders) is considered a prerequisite for economic growth and hence as a component of the entire process of economic development.

Based on the explanation above, the proposed research framework is given in Figure 1. Here, SEM method is applied and used panel data from year 2011 – 2016 in the model (minimum wage, migration, economic growth, and disguised unemployment rate variables) are obtained from [2,11-14]. Here, data unit is province level in Indonesia with sample of 33 provinces from 34 provinces in Indonesia (excluding North Kalimantan as data for this province are not enough).

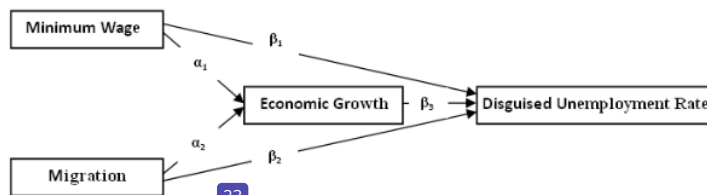


Figure 1: Research Framework

IV. Results and Discussion

4.1 Model Analysis

The model built in the study is said to be fit if it meets the requirements (Goodness of Fit Index), which is required by SEM (Structural Equation Modeling). The results of data processing can be summarized in Table 1. From the table, it is seen that GFI, NFI, IFI, and CFI values are 1.000. This indicates that the developed model has good fit index.

Table 1. Results of Fit Index Model

| Model Fit Index             | Cut Off Value | Results |
|-----------------------------|---------------|---------|
| Goodness of Fit Index (GFI) | > 0.90        | 1.000   |
| Normed Fit Index (NFI)      | > 0.95        | 1.000   |
| Incremental Fit Index (IFI) | > 0.95        | 1.000   |
| Comperative Fit Index (CFI) | > 0.95        | 1.000   |

4.2 Functional Effects between Variables

Table 2 and 3 shows typical direct and indirect relationship between variables in the built SEM model, respectively. For direct relationship, minimum wage and migration variables have significance impact to economic growth at 10% significance level. It is indicated by obtained sig (p) values below 0.1 (Table 2). The same results for DUR, minimum wage and migration have significance influence as well. For economic growth, it has not significance to DUR. Other results regarding indirect relationship between variables in the model (Table 3), it is found that minimum wage and migration have no significance to DUR through economic growth (sig (p) values above 0.1).

Table 2 Direct relationship between variables

| Variable        |                 | Coefficient | Sig (p) |
|-----------------|-----------------|-------------|---------|
| Minimum Wage    | Economic Growth | -1.492      | 0.004   |
| Migration       |                 | -0.288      | 0.099   |
| Minimum Wage    | DUR             | -5.684      | 0.001   |
| Migration       |                 | -5.570      | 0.000   |
| Economic Growth |                 | -0.083      | 0.728   |

Table 3 Indirect relationship between variables

| Variable     |                      | Coefficient | Sig (p) |
|--------------|----------------------|-------------|---------|
| Exogenous    | Endogenous           |             |         |
| Minimum Wage | DUR through Economic | 0.123       | 0.348   |
| Migration    | Growth               | 0.024       | 0.343   |

#### 4.3 Direct Effect of Minimum Wage and Migration on Economic Growth

Minimum wage and migration on economic growth have negative and significant effect as stated before. This can happen because the minimum wage burdens companies in the long run because companies that have characteristics of intensive labor or companies that use a lot of energy as one of the production inputs will reduce the company's income or profits, thereby reducing national income. The small and medium enterprises (SMEs) sector does not develop due to high minimum wages which ultimately influences overall economic growth because the number of SMEs in Indonesia is far more quantity than the large business category. Meanwhile for migration, it is happen because migration weighs on economic growth in the destination because with many migrant workers where the cause of migration is one of them due to economic factors. Migration that occurs mostly in Indonesia is migration which is not followed by the transfer of assets so that the influence of migration does not have much impact on the economic growth of the destination area. Open competition between local workers and migrants will lead to increasingly narrow employment and increasingly competitive business competition so that the effect on economic growth. The number of unemployed people results in lower regional / national income - small taxes so that the influence of migration does not significantly reduce economic growth. The implication of this policy is the need for the government to encourage infrastructure in the region so that the informal sector grows and develops and provides a smaller tax burden on the micro and small business sectors. So that the development of micro and small businesses in the regions will help workers who carry out migration to get jobs so that the income received for consumption can increase national income.

#### 4.4 Direct Effect of Minimum Wage and Migration on DUR

The direct effects of minimum wage and migration on disguised unemployment rate have negative and significant effect. For minimum wage, this is because capital / business owners or companies are of the view that rising minimum wage will burden the company's production costs so that they need to reduce labor or termination of employment. Another thing with increasing minimum wage is that workers who do not work in productive normal working hours (< 35 hours / week) will be interested in becoming workers who work according to normal working hours to reduce the number of workers. For migration, this can occur because the influx of migrant workers will increase the number of workers in the destination so that many companies recruit more skilled and experienced workforce with reasons to increase labor productivity. The company assumes that there are many unskilled and experienced workers so that they are terminated. The most felt impact is workers who do not have the expertise or experience working under normal working hours (< 35 hours / week) and being replaced by a more skilled and experienced workforce.

For this reason, the policy implications that need to be carried out by the government are involving the provincial government with other relevant agencies by providing good regional infrastructure. With regional infrastructure and good tax policies related to the business sector, it will provide support for the process of industrialization and regional economic growth so that employment opportunities are as wide as possible. Some of the excess labor is transferred to the informal sector so that the direct effect of migration on the increase in disguised unemployment rate can be minimized.

#### 4.5 Indirect Minimum Wage and Migration on DUR through Economic Growth

The indirect effects of the minimum wage and migration on disguised unemployment rate through economic growth are not significant. For minimum wage, it is because the increasing minimum wage has not been able to significantly improve the welfare of the workers' economy so that the tendency to increase consumption for their families' remains, as well as the company's output does not increase. Wage rate is actually a reflection of the level of labor productivity contributed by labor, rising wage levels are expected to increase labor productivity and then increase the company's output. When the wage level rises and is followed by an increase in the productivity of workers in the company in almost all sectors causing an increase in the minimum wage influences the real GDP. However, in this finding, the increase in minimum wage of workers led to a tendency to increase production costs, decreasing corporate income which affected the national income. For migration, it may cause the mobility of residents is not able to promote economic growth significantly due to population mobility is not accompanied by displacement of assets/mobility assets. While the migrant workers used in the company/industry are very limited because of various factors, especially because the industry factor is solid capital and technology (capital intensive) so that not much use of labor, only skilled and experienced personnel can be absorbed. The less use of manpower makes consumption incapable of encouraging economic growth. Population mobility that causes abundant amounts of energy is only a fraction of the formal sector and

works in the informal sector but overall gives a tendency to reduce the effects disguised unemployment rate.

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## V. Conclusion

This paper presents a study regarding the effect of minimum wage and migration to disguised unemployment rate in Indonesia using structural equation modeling (SEM). From analysis, it can be concluded that proposed SEM model has good fitness of index. Minimum wage and migration variables in the model have significant effect on disguised unemployment rate in Indonesia with negative direction and not significant through economic growth.

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