



The Effect of Economic Growth, Inflation and Business Confidence Index on Unemployment in ASEAN-5

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Abstract

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This study aims to see the effect of of economics growth, inflation, and business confidence index in ASEAN-5. The method used in this research is panel data regression method with Vector Error Correction model. This research was conducted in 5 countrys in ASEAN for fiveteen years, 2005-2019. The variables in this study consisted of the economics growth represented by percentage of GDP (X1), inflation represented by consumer price index (X2), business confidence index represented by percentage of business confidence index (X3), and unemployment represented by percentage of unempolyment rate (Y). This data is secondary data obtained through World Bank and Trading Economics in ASEAN-5. The results of this study prove that the variable of economics growth in 1st lag isn't significant on unemployment, but in 2nd and 3rd lag are significant on unemployment. While the variables of inflation and business confidence index are significant on unemployment.

Abstrak

Penelitian ini bertujuan untuk mengetahui pengaruh pertumbuhan ekonomi, inflasi, dan business confidence index terhadap pengangguran di ASEAN-5. Metode yang digunakan dalam penelitian ini adalah metode regresi data panel dengan model *Vector Error Correction Model*. Penelitian ini dilakukan pada 5 negara di ASEAN dengan 15 tahun yakni tahun 2005-2019. Variabel dalam penelitian ini terdiri dari pertumbuhan ekonomi yang diwakili oleh persentase GDP (X1), inflasi yang diwakili oleh persentase indeks harga konsumen (X2), dan business confidence index yang diwakili oleh persentase indeks kepercayaan produsen (X3), dan pengangguran yang diwakili oleh persentase jumlah tingkat pengangguran (Y). Data ini merupakan data sekunder yang diperoleh melalui *World Bank* dan *Trading Economics* di 5 negara ASEAN. Hasil dari penelitian ini terbukti bahwa variabel pertumbuhan ekonomi pada lag pertama tidak berpengaruh signifikan terhadap pengangguran,

namun pada lag kedua dan ketiga terdapat pengaruh yang signifikan terhadap pengangguran. Begitu pula dengan variabel inflasi, ketiga lag menunjukkan pengaruh yang signifikan terhadap pengangguran.

Variabel business confidence index ketiga lag berpengaruh signifikan terhadap pengangguran.

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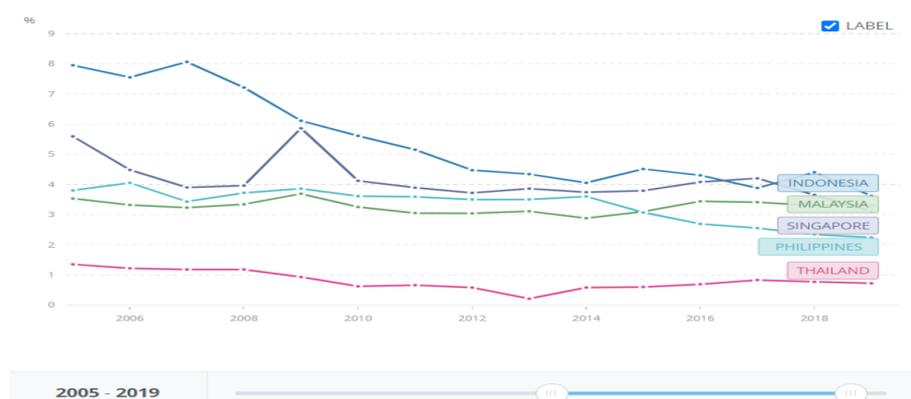
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INTRODUCTION

Unemployment has an important meaning because unemployment is a strategic problem in the economic sector of a country. This is because it will affect the standard of living of the community. The standard of living of the community can be seen through the level of welfare where an important factor of the welfare of the community is seen through its income. Good and high income can be achieved if all human resources can be utilized properly. Meanwhile, with unemployment conditions, the workforce cannot be utilized properly so that income cannot be achieved optimally which will disrupt the level of community welfare (Hasyim, 2016).



Source: World Bank

Figure 1.

Unemployment Data in ASEAN 5 Period 2005-2019

Indonesia compared to other countries has the highest unemployment rate with an average unemployment rate during 2005 to 2019 of 5.51%, even in 2007 it recorded the highest number of up to 8.06% while the lowest figure was 4.05%. This figure is still relatively high compared to the average unemployment in other countries. The expansion of the country's manufacturing industry, which is currently in a weakening trend, is one of the causes of Indonesia's high unemployment rate.

Singapore is below Indonesia with an average unemployment rate from 2005 to 2019 of 4.14%. This figure is clearly better than Indonesia because the unemployment rate even in the range of 2011 to 2015 could record numbers below three percent. Unemployment in Singapore itself is generally caused by a reduction in the number of workers due to company policies. The company's policy was taken as a result of weak market demand. In addition, Singapore's business climate is strongly influenced by global economic conditions. With the turmoil in the world economy, the demand for business relations has decreased, so many companies have reduced their production capacity, which will result in a reduction in the workforce.

The Philippines has an even better unemployment rate with an average of 3.3% in the same year. The highest unemployment rate occurred at 4.05% in 2006 and was successfully suppressed to the lowest in 2019 with 2.15%. The Philippines has succeeded in reducing the unemployment rate to below three percent from 2016 to 2019. Unemployment conditions in the Philippines are caused by a lack of land development and national industrialization, waste of resources due to high consumption that relies heavily on imports, increased debt and tax burdens, infrastructure projects that too expensive,

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rampant bureaucratic corruption.

Malaysia is almost the same as the Philippines with an average unemployment rate of below four percent, but Malaysia has only been able to suppress the unemployment rate below three percent once, namely in 2014 in a span of 15 years with a figure of 2.88%. While the rest are at three percent with the highest unemployment rate occurring in 2009 with 3.69%. There are three main factors in this country that cause unemployment. The first is English language proficiency and problem solving analysis is very weak, second is the monetary influence and the last is the racial influence factor.

Thailand is the country with the lowest unemployment rate, even during the period from 2005 to 2019 it did not reach one percent. Thailand has the highest unemployment rate of 1.35% while fantastic results occurred in 2013 with only 0.48%. Some research also confirms that unemployment in this country may increase if external factors beyond Thailand's control continue. One of the external factors is the increasing trade tensions between the US and China. China's economic growth is declining due to these tensions. As a result, the number of Chinese tourists in 2019 fell drastically due to government policies that prohibit outbound tourism. Since Thailand is so dependent on exports and tourism, unemployment is bound to increase as tourism-related businesses are heavily impacted.

Unemployment can occur due to one or more variables. The variable or factor that affects unemployment is economic growth. Okun's law is the only economic model that focuses on economic growth and unemployment (Okun, 1962). Okun's law is a negative relationship between unemployment and Gross Domestic Product (GDP) (Mankiw, 2007). Okun's law states that to reduce the unemployment rate by 1% it must create economic growth twice as much as the economic growth that occurs. For example, the existing GDP is 2.2%, to reduce unemployment by 1%, GDP must be doubled to reach 4.4% (Okun, 1962 in Dankumo, Ishak, Oluwaseyi, & Onisanwa, 2019).



Sumber: World Bank

Gambar 2.

Data Pertumbuhan Ekonomi di ASEAN 5 Periode 2005-2019

Based on the graph of economic growth for the four countries above, it shows fluctuating

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growth during 2005 to 2019. Indonesia's GDP recorded the highest number in 2007 with 6.34% and in 2009 recorded the lowest GDP at 4.62%. In the span of 2010 to 2015 Indonesia's GDP continued to decline. However, in 2016 it increased until 2018 with results in 2018 of 5.17%, although in 2019 it decreased again. For the Philippines itself in 2010 also recorded the highest GDP for the country at 7.33%. This is very good because in the previous year the Philippines' GDP was only 1.44%. However, it is very unfortunate that in the following year it experienced a decline with its GDP yield of only 3.85%. In 2012 the Philippines rose by getting a GDP of 6.89%. In the following years, the Philippines got a fairly stable GDP, even in 2016 the GDP that was recovered touched a figure above 7 percent to be precise, which was 7.14%. Malaysia is almost the same as the Philippines where in 2010 the largest GDP was 7.42% with the previous GDP being -1.51% and in the following year experiencing a fairly large decline with a GDP result of 5.29%.

However, it is unfortunate that Malaysia could not rise again to record its GDP at 7 percent like the Philippines. Malaysia was only able to touch the figure of exactly 6% in 2014 as its best result after 2010. Singapore recorded a very high GDP compared to other countries in 2010 where Singapore got a GDP of 14.53%, but in the following year got the same result as the other is a slump in GDP. Thailand is the most different country from the previous three countries where the GDP obtained by this country is very low, even the highest figure that was achieved was only 5.43% in 2007 with the lowest result even reaching 1.94% in 2018.

In the discussion of unemployment, inflation also has an important role in increasing the number of unemployed. Inflation is a condition where there is an increase in the general price level of both goods and services and factors of production. So that the statement indicates a weakening of purchasing power followed by a decline in the real value of a country's currency (Samuelson & Nordhaus, 2001). The Phillips curve explains that there is a negative relationship between inflation and unemployment. The theory that assumes that an increase in inflation occurs due to an increase in aggregate demand.

The high demand will push up the price of goods which will be followed by a decrease in the stock of goods. To meet market demand, producers will increase production capacity by increasing the number of workers. The higher the demand for labor, unemployment tends to be lower (Suyuthi, 1989).



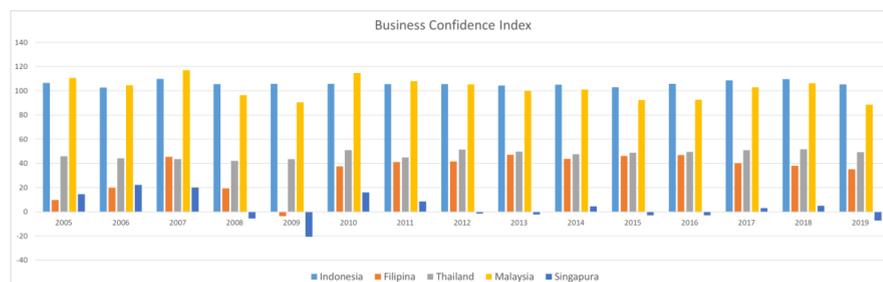
Source: World Bank

Figure 3.

Inflation Data in ASEAN 5 Period 2005-2019

Based on data, Indonesia's inflation has recorded a figure of more than 10 percent, although in the next it could decrease. In the following years, in general, from 2010 to 2019, Indonesia itself had an inflationary trend that had increased from 2010 to a peak of 6.39% in 2014. However, after 2014 inflation in Indonesia showed a declining trend, even During the span of 2016 to 2019 Indonesia's inflation was in the range of three percent with a downward trend to its lowest point of inflation of 3.03% in 2019. In contrast to conditions with Indonesia, the Philippines actually recorded the highest inflation rate at 8.26 %, but the inflation condition in the Philippines is very volatile. With this fluctuating condition, the Philippines was able to suppress inflation to 0.67% in 2015. This fluctuating condition is similar to Malaysia where Malaysia recorded its highest inflation rate in 2017 of 3.87%. This result is quite in contrast to Indonesia, where Indonesia recorded the lowest score at three percent, while Malaysia at three percent was the highest figure. Thailand itself has a fairly low inflation rate with an average from 2009 to 2019 of 2.12%. Even in 2015 Thailand recorded an inflation result of -0.9%. Singapore became the country with the lowest inflation rate with an average of only 1.81%, although it had experienced inflation of up to 6.62% in 2008. Singapore also had a minus inflation rate, namely in 2015 and 2016 with each of -0.52% and -0.53%.

The business confidence index (BCI) belongs to a group of economic indicators that measure confidence in the business conditions of a country. If the confidence index is low, the investment movement will slow down, the impact is that the growth of a company will slow down and will reduce the absorption of labor which will eventually lead to unemployment. According to (Bernanke, 1993), the economy can slow down if consumers and companies are reluctant to shop and invest. Carroll, Fuhrer, & Wilcox (1998) suggest that future consumption growth can be predicted by changes in consumer sentiment.



Source: Trading Economics (data already processed)

Figure 4. Business Confidence Index Data in ASEAN 5 Period 2005-2019

Data in the range from 2005 to 2019 countries in Southeast Asia such as Indonesia, Malaysia, Thailand, the Philippines and Singapore have average business confidence index values, respectively, namely 105.92%, 101.98%, 33.84% and 3.37%. For a more detailed discussion, Indonesia has a very fantastic BCI from the other four countries, the results are quite stable above 100 percent with the highest result of 109.54% in 2018 and the

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lowest result of only 102.69% in 2004. The Philippines is the opposite of Indonesia, where the best results only touched 47.11% in 2013. In the following years and in the previous year, this country could not even reach 50 percent. Thailand experienced a similar condition, but Thailand managed to touch the figure above 50 percent in 2010, 2012, 2017 and 2018 with results of 50.8%, 51.36%, 50.56% and 51.56%, respectively. Meanwhile, Malaysia has almost equal results with Indonesia with a BCI above 100 percent. It's just that Malaysia was able to get BCI results below 100 percent in several years with the lowest figure of 88.45% in 2019. Singapore became the country with the lowest BCI even arguably very low, only being able to record the highest number of 22.25% in 2006 and recorded a minus number from 2012 to 2019.

Looking at some of the facts and problems that have been described above, the researcher chose several factors that influence unemployment in ASEAN such as Economic Growth, Inflation and the Business Confidence Index. Therefore, this study aims to examine "The Effect of Economic Growth, Inflation and Business Confidence Index on Unemployment in ASEAN-5."

METHOD

The research method used in this research is to use quantitative research methods with a descriptive approach. According to (Sugiyono, 2014) descriptive method is a method used to determine the value of the variables studied independently or without connecting one variable to another.

This research ranges from 2005-2019 with 5 ASEAN countries as objects. The data obtained for this study were obtained from the World Bank and Trading Economics. The variables used as objects in this study include unemployment using the percentage of the unemployment rate which is the dependent variable (Y) and the independent variables include economic growth (X1), inflation (X2), and business confidence index (X3).

RESULTS AND DISCUSSION

Estimation of the regression model using panel data is used to determine the effect of economic growth, inflation, and business confidence index on unemployment. After conducting various tests, the estimation results were obtained using the short-term Vector Error Correction Model as the best model for this research.

Error Correction:	D(UNP,-1)	D(UNP,-2)	D(INF,-3)
CointEq1	-0.017665 (0.01911) [-0.92430]		

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D(GDP)	-0.078568 (0.06141) [-1.27940]	-0.049444 (0.04368) [-1.13195]	-0.025475 (0.02456) [-1.03744]
D(INF)	0.024215 (0.04130) [0.58635]	-0.002599 (0.04574) [-0.05682]	0.000629 (0.02909) [0.02162]
D(BCI)	-0.007115 (0.00948) [-0.75042]	-0.007438 (0.00748) [-0.99480]	-0.001683 (0.00672) [-0.25027]
C	0.019865 (0.05470) [0.36318]		

Processed results eviews 10

Based on the table above, it can be seen that the effect of economic growth (X1) in the second and third lags has a coefficient of -0.0494999 and -0.025475 which means that every 1% increase in the economic growth variable is predicted to reduce the unemployment rate by 0.0494999 and 0,025475. The second variable, namely inflation (X2) in the second lag has a coefficient of -0.002599, meaning that if inflation increases by 1% it will reduce unemployment by 0.002599. The regression coefficient value of the X3 variable, namely the business confidence index, is negative in the three lags of -0.007115, -0.007438, and -0.001683, meaning that if X3 increases by 1%, unemployment is predicted to decrease by 0.007115, 0, 007438, 0.001683.

Economic growth

Economic growth is an effort to increase production capacity to achieve additional output. This economic growth is measured using the Gross Domestic Product (GDP) and Gross Regional Domestic Product (GRDP) in a region. If economic growth has increased in a region then the presentation of the economy in that region is developing well. In theory, according to Okun's Law, economic growth is one of the factors that affect unemployment.

In this study, economic education in the first lag has no effect on unemployment. It is indicated by a probability value of 0.06141 which is greater than the alpha significance level of 0.05. However, the second and third lags have a significant effect on unemployment. Marked with probability values 0.04368 and 0.02456. The results of the research in the first lag are in line with research conducted by Nikolli (2014) that economic growth has no effect on unemployment. The results of the research in the second and third lags are similar to the research conducted by Abdul-Khaliq, Soufan, & Shihab (2014) that economic growth has a negative and significant effect on the unemployment rate, meaning that an increase in economic growth of 1% will reduce the unemployment rate by 0.16%. .

This study shows that Indonesia's GDP recorded the highest figure in 2007 with

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6.34% and in 2009 it recorded the lowest GDP at 4.62%. In the span of 2010 to 2015 Indonesia's GDP continued to decline. However, in 2016 there was an increase until 2018 with results in 2018 of 5.17%. For the Philippines, in 2010 also recorded the highest GDP for the country at 7.33%. This is very good because in the previous year the Philippines' GDP was only 1.44%. Malaysia is almost the same as the Philippines where in 2010 the largest GDP was 7.42% with the previous GDP being -1.51% and in the following year experiencing a fairly large decline with a GDP result of 5.29%. Singapore recorded a very high GDP compared to other countries in 2010 where Singapore got a GDP of 14.53%, but in the following year got the same result as other countries, namely a decline in GDP. Thailand is the most different country from the previous three countries where the GDP obtained by this country is very low, even the highest figure that was achieved was only 5.43% in 2007 with the lowest result even reaching 1.94% in 2018.

Inflation

Inflation is an increase in the price of goods and services in general and in a continuous period of time. This price increase was caused by public demand and cost drives which in the end could result in the erosion of people's purchasing power. In this study, inflation is proven to have an effect on unemployment in 5 ASEAN countries in the short term.

It can be seen from the probability value in the three lags of 0.04130, 0.04574 and 0.02909 where the value is smaller than the alpha which is determined at 0.05. The coefficient in the second lag is negative at -0.002599 indicating that inflation has an effect on reducing unemployment. In the short term, these findings are in line with the Philips Curve, with high inflation, purchasing power and demand will increase so that producers will increase their production capacity by increasing the number of workers with the assumption that labor is the only input that can increase output.

The results of this study are in line with research conducted by Macharia & Otieno (2015) which states that if inflation is increased, investors from the private sector will be encouraged to invest more because it will generate higher profits. This will increase the number of workers and will reduce the unemployment rate. The study concludes that with rising inflation, prices of goods and services will increase so that producers will supply more goods. That way producers will need a lot of labor so that it will reduce the unemployment rate.

Business Confidence Index

The business confidence index or commonly known as the business confidence index (BCI) is one of the most important early warning indicators to see short-term economic trends as well as an indicator to anticipate short-term development. This is based on the short term BCI probability values in the three lags are 0.00948, 0.00748 and 0.00672 which are smaller than the 0.05 significance and the coefficient is negative indicating that there is an inverse relationship between the business confidence index and unemployment.

This business confidence indicator provides information on future developments, based on opinion surveys on developments in production, orders and finished goods stocks in the industrial sector.

It can be used to monitor output growth and to anticipate turning points in economic activity. A reading above 100 indicates increased confidence in future business performance, and a reading below 100 indicates pessimism about future performance.

CONCLUSIONS AND SUGGESTIONS

Conclusion

Based on the discussion of the results of the analysis on the effect of economic growth, inflation and business confidence index on unemployment in ASEAN-5, several conclusions are drawn, including:

1. In the short term, economic growth in the first lag has a negative and insignificant effect of 0.078568 with a Prob value of $0.06 > \alpha 0.05$. While the second lag and third lag have a negative and significant effect on unemployment 0.04944 with a value of Prob. $0.04 < \alpha 0.05$ and the third lag has an effect of 0.025475 with a value of Prob. $0.02 < \alpha 0.05$.
2. In the short term inflation has a positive and significant effect on unemployment in the first lag it has an effect of 0.024215 with a Prob value. $0.04 < \alpha 0.05$, while the second and third lags have a negative and significant effect on 0.002599 with the value of Prob. $0.04 < \alpha 0.05$ and the third lag has an effect of 0.000629 with a Prob value of $0.02 < \alpha 0.05$.
3. In the short term, the business confidence index has a negative and significant effect on unemployment in ASEAN-5, the first lag has an effect of 0.007115 with the value of Prob. $0.00 < \alpha 0.05$, the second lag has an effect of 0.007435 with a Prob value. $0.00 < \alpha$ and the third lag has an effect of 0.001683 with a Prob value of $0.00 < \alpha 0.05$.

Suggestion

1. Economic growth can be increased by making policies in the form of strengthening the trade balance and strengthening domestic demand. This is intended to maintain good economic movement. Besides that, there is also a need for a structural transformation of institutions that play a strategic role in the country's economy.
2. Inflation can be reduced through monetary policy, which is carried out by the central bank in order to achieve and maintain currency value stability through controlling the money supply and setting interest rates. In addition, there is a need for a fiscal policy where this policy leads to the regulation of revenues in the tax sector and government spending.
3. The business confidence index can be increased by establishing a good business climate which relates to consumers and investors. Increased consumer confidence needs to be improved so that the movement of demand can continue and with high demand it will attract investors to enter the business environment.

REFERENSI

Abdul-Khaliq, S., Soufan, T., & Shihab, R. A. (2014). The Relationship between Unemployment and

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- Economic Growth Rate in Arab Country. *World Applied Sciences Journal*, 5(6), 762–769.
<https://doi.org/10.5829/idosiwasj.2012.18.06.2735>
- Bernanke, B. S. (1993). Irreversibility , Uncertainty , and Cyclical Investment. *The Quarterly Journal of Economics*, 98(1), 85–106.
- CARROLL, C. D., FUHRER, J. C., & WILCOX, D. W. (1998). Does consumer sentiment forecast household spending? If So, Why? *Economics Letters*, 58(1).
[https://doi.org/10.1016/s0165-1765\(97\)00247-4](https://doi.org/10.1016/s0165-1765(97)00247-4)
- Dankumo, A. M., Ishak, S., Oluwaseyi, Z. A., & Onisanwa, I. D. (2019). Does Okun’s law explain the relationship between economic growth and unemployment in Nigeria? *Jurnal Ekonomi Malaysia*, 53(3). <https://doi.org/10.17576/JEM-2019-5303-12>
- Hasyim, A. I. (2016). *Ekonomi Makro*. Jakarta: Prenadamedia Grup.
- Mankiw, N. G. (2007). *Principle of Economics*. Jakarta: Salemba Empat.
- Macharia, M. K., & Otieno, A. (2015). Effect of Inflation on Unemployment In Kenya. *International Journal of Science and Research (IJSR)*, 6(6), 1980–1984.
<https://doi.org/10.21275/ART20174660>
- Nikolli, E. (2014). Economic Growth and Unemployment Rate. Case of Albania. *European Journal of Social Sciences Education and Research*, 1(1), 217. <https://doi.org/10.26417/ejser.v1i1.p217-227>
- Okun, A. M. (1962). *Potential GDP: Its measurement and significance*. Alexandria: Business and Economic Statistic Section of the American Statistical Association.
- Samuelson, P. A., & Nordhaus, W. D. (2001). *Ilmu Makro Ekonomi*. Jakarta : PT. Media Edukasi.
- Sugiyono. (2014). *Metode Penelitian Kuantitatif, Kualitatif dan R&D*. Bandung: CV Alfabeta.
- Suyuthi, M. D. (1989). *Pengantar Ekonomi Makro*. Jakarta: Departemen Pendidikan dan Kebudayaan.