
Article

Economic and Budgeting Policy: The Relationship Between Inflation, Unemployment, and Government Measures in Stable Economic Growth

Endang Susilowati^{1*}, Erwin Susanto Sadirsan²

¹SKSG, University of Indonesia, Depok, West Java, 16424, Indonesia

²Faculty of Economics and Business, Pertamina University, South Jakarta, DKI Jakarta, 12220, Indonesia

email: erwin.susanto@universitaspertamina.ac.id

*Correspondence email: endang.susilowati01@ui.ac.id

Abstract: The relationship between inflation and unemployment is of significant economic importance, as illustrated by Indonesia's experience from 1984 to 2017. Indonesia's unique position shows that unemployment causes inflation, while inflation does not cause unemployment, and the effectiveness of inflation policy in reducing unemployment is limited due to implementation difficulties resulting from regional geographic differences. The government's measures play a crucial role in the relationship between unemployment and inflation, resulting in varying outcomes. Indonesia can implement monetary policy based on sharia principles, which aligns with policy theory by enacting a contractionary response to an increase in inflationary growth, while expansionary during an increase in the unemployment rate. However, Indonesia's dual monetary policy prioritizes the achievement of inflation targets, meaning that monetary authorities should take a more proportionate approach to tackle the issue of unemployment alongside inflation. To manage unemployment and the inflation rate effectively, Indonesia needs to establish an environmentally-friendly business environment with reduced taxes and deregulation. In conclusion, Indonesia's experience underscores the importance of effective government measures and proportional monetary policy responses in addressing the issue of unemployment alongside inflation.

Keywords: Inflation, Unemployment, Government Measures, Economic Growth

1 Background

Economic policy is essential to all functions of government, economic policy is the development of programs and policies to improve the economic condition of the nation, such as reducing unemployment or increasing economic growth.

*Corresponding author.

Copyright © 2023 Journal of Management and Energy Business

This work is licensed under a Creative Attribution-Non Commercial-ShareAlike 4.0 International License.

<https://doi.org/10.54595/jmneb.v3i1.35>

In bad economic times, policymakers seek to make policy choices that can return the nation to good economic times. The government has economic policy goals: to ensure economic growth, reduce unemployment, reduce inflation, create a positive trade balance, and manage deficits and debt.

Economic growth means an increase in the production of goods and services every year, expressed in terms of increased Gross Domestic Product (GDP). A strong economy can add to government tax revenues, make people experience increased wealth and accept policies that shift some of their money to people.

Short-term economic problems, such as inflation and unemployment are among the most prominent macroeconomic problems of all time [1]. Good economic conditions are characterized by a decrease in the number of unemployed and a decrease in the inflation rate. Unemployment has a detrimental impact on the economy and government budgets. The higher the number of unemployed people, the lower the number of people paying income or taxes, less income coming into fund government programs. Unemployment causes poverty, crime in society and has an impact on mental health [2].

Inflation affects society, has the impact of decreasing people's income and creates economic uncertainty and puts pressure on the currency [3]. That's why the government is more concerned with inflation than unemployment.

The Indonesian government began to focus on inflation during the economic shock of the transition period (1965-1969). The high inflation rate in 1965 caused high unemployment to increase by 5-6% per year. The Indonesian government managed to control inflation because the inflation rate was below 10% in 1969 (Bank Indonesia 2004). However, the monetary crisis hit Indonesia again in 1997-1998 which resulted in an inflation rate of 58.4%. During July to December 1997 the rupiah depreciated enormously. This condition is exacerbated because many companies borrow in the form of foreign exchange. In the condition of the rupiah falling against the dollar, the portion of their debt immediately swelled. Corporations began hunting for dollars in anticipation of maturing debts. During the post-monetary crisis period, Indonesia managed to recover, and the inflation rate was below double digits. In 2008 the turmoil in global financial markets finally affected Indonesia. Foreign funds exited and JCI declined. IDX had to suspend trading on October 9 and 10, 2008, to give investors pause to think rationally amid financial market turmoil. However, Indonesia's inflation rate remains stable. The government's economic rescue program is in the form of tightening money.

During the Covid-19 pandemic, Indonesia's economic growth contracted by minus 2.07%. Indonesia is stuck in recession due to negative economic growth. On an annual basis (year on year), Indonesia's economy contracted by minus 2.19%. Indonesia relies on public compliance with health protocols and economic stimulus to prevent a spike in unemployment.

With the rapid development of Islamic finance in Indonesia, Bank Indonesia is mandated and decided to prepare a dual monetary policy by establishing conventional policy and Islamic monetary policy

Based on this, several questions arise: how does the interaction of Islamic and conventional monetary policies in the dual policy monetary system respond to inflation and unemployment problems in Indonesia? Is there a relationship between unemployment

and inflation? Does the size of the government also affect unemployment and inflation? What is the relationship between a country's political stability and unemployment and inflation? These questions will be answered in literature discussion and analysis.

2. Discussion of The Argument Position of Each Literature

Based on Fisher's theory, regulating the money supply is important to maintain economic stability by controlling the rate of inflation. This is known as monetary policy. Monetary policy is important because it can have a significant impact on the real economy in the short run [4].

Is there a link between inflation and unemployment and the evidence that has occurred in Indonesia? In his research, Sasongko Gatot (2018), raised the theme considering several different results from previous research [5]. Several previous studies have investigated the relationship between inflation and unemployment, including: Al-zeaud (2014) found no causal relationship between inflation and unemployment in Jordan [1]. Furuoka (2008) found no causal relationship between inflation and unemployment in the Philippines [6]. Caporale and Kare (2011) show there is a one-way causal relationship between inflation and employment opportunities where studies were conducted in development organizations and countries that stated inflation affects employment opportunities [7]. Furuoka (2007) in Malaysia, found a one-way relationship between inflation and unemployment, where inflation causes unemployment but not vice versa [8], as well as Bratu (2016) in AS [9]. Kogid et al. (2011) document the one-way causality between inflation and unemployment.

Research conducted by Sasongko Gatot (2018) investigates the trade-off between inflation and unemployment in Indonesia as discovered by Phillips (1958) in Indonesia during 1984 to 2017 [5]. The Indonesian government experienced economic shocks during the transition period (1965-1969). The Indonesian government managed to control inflation with an inflation rate below 10% in 1969 (Bank Indonesia 2004). The crisis that followed in 1997-1998 resulted in an inflation rate of 58.4%, then in 2008 and finally during the pandemic in 2020. The study used secondary data from statistical bureaus and World Bank publications, using time series data from 1984 to 2017. Causality and Granger Vectors are further L1 Autoregression is used to analyze data.

In the next literature discussed the relationship between inflation rate, unemployment with *government size*. In his research, Afonso (2020) in eight emerging economic markets from 1980 to 2015, namely Argentina, Brazil, China, India, Indonesia, Mexico, South Africa, and Turkey, to see the relationship between government measures and unemployment and inflation using panel cointegration and causality frameworks and in contrast to previous studies using time series models [10]. Previous research has been conducted by Scully (1989), Barro (1991), Engen and Skinner (1992), Fölster and Henrekson (2001), Dar and AmirKhalkhali (2002), Boset *al.* 2007), Afonso and Furceri (2010), Afonso and González Alegre (2011), Ghose and Das (2013), and Christie (2014) focused on the relationship between government size and economic growth, while Afonso's (2020) research examined the relationship between government size and unemployment and inflation [10]. The selection of 8 countries in emerging markets because these countries currently play an important economy in the world.

In his research, Alfonso (2020) uses three main variables, namely government size variables, unemployment, and inflation. Government measures use a proxy of total government general expenditure and taxes calculated from the decomposition of total government general expenditure, social transfers and subsidies [10]. Invite, consists of: direct taxes, indirect taxes and contributions social. A pseudo-proxy size is measured as a percentage of GDP. The variable unemployment is defined as the proportion of the total unemployed people in the total labor force and is usually measured on a yearly basis. Variabel inflation which refers to the change in the consumer price index and is measured as the percentage change in the annual consumer price index compared to the previous year. The control variables used consisted of the real effective exchange rate (REER), population growth (POP), and real GDP per capita (Y).

From the study, the results were obtained: (1) Government expenditure / consumption expressed as a GDP ratio, positively correlated with unemployment and inflation. A 1-point increase in government spending increased 1.16% in unemployment. (2) Real exchange rates and population growth are positively correlated with unemployment but have no effect on inflation. A larger government size results in higher unemployment. (3) The correlation between government measures and inflation occurs when government consumption expenditures and taxes are considered as proxy measures of government measures. (4) The impact of indirect taxes on unemployment was approximately twice as high for the countries studied. A 1-point increase in indirect taxes increased unemployment by almost 2.33%. For inflation, the results showed that a 1 percentage point increase in direct taxes increased inflation by 1.26%

The results are in line with previous research in which expanding the size of government in countries leads to inflation and price increases. Regarding inflation, empirical research results show that government size is positively correlated with long-term inflation. In this case, government consumption expenditure and direct taxes are considered proxy measures; increasing the size of government produces a positive effect on inflation.

After discussing the size of the government, we discuss the relationship between inflation and unemployment with dual monetary policy in Indonesia considering that Islamic banking is growing rapidly. Amrial (2019) made a study of multiple monetary policy models to determine the correlation between Islamic and conventional monetary policies with inflation and unemployment using a model approach from a reaction function that is useful for analyzing policy historically, the Phillips curve is used to explain that inflation depends on inflation expectations, changes in natural unemployment and supply [11]. This study used econometric data processing with time series data.

VAR estimation analysis in this study uses the impulse response (IRF) function to analyze the degree of sensitivity or responsiveness to shocks between variables and the application of variance decomposition (VD) to analyze how the proportion of independent variable contribution affects the dependent variable in the system.

The study looked at the response of the money supply to the expectation inflation proxy from conventional and Shariah references. Figure 1 shows the relationship between real interest rates measured by conventional and Sharia monetary real interest rates affecting the money supply. The real interest rate in the first month has a positive value of its effect on the money supply with a value of 0.1 until the third period. Furthermore, a decrease in the money supply occurs in the fourth period with a very small value and after that, it

stabilizes again every day. Similar to the response of the money supply to the real interest rate, in the early period the growth of the real profit sharing rate leads to an increase in the money supply until the third period.

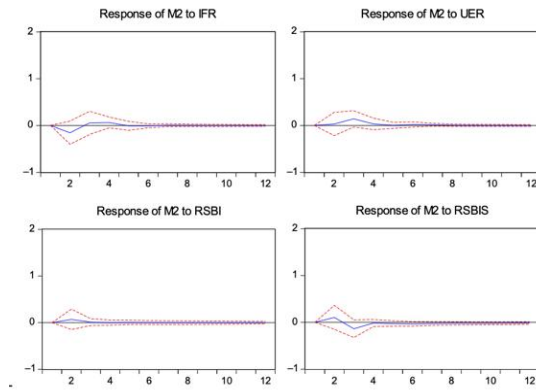


Figure 1. IRF M2 to IFR, UER, RSBI and RSBIS ¹

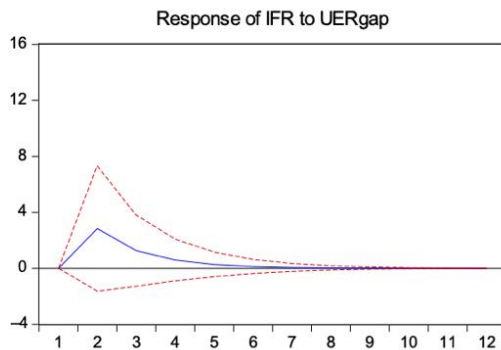


Figure 2. IFR to UER gap ²

Figure 2 shows the linkage in the Phillips curve: the unemployment rate gap positively affects the inflation rate from the first period to the stability in the eighth period. The highest response given was 2.8 in the second period. The IRF chart shows a positive relationship between the inflation rate and the unemployment rate gap in Indonesia. This positive impact can mean that an increase in unemployment drives the inflation rate.

¹ Amrial, Mikail Ahmad, Arundina Tika (2019). Implementation of dual monetary policy and its relevance to inflation and unemployment in the Phillips curve context in Indonesia. *International Journal of Islamic and Middle Eastern Finance and Management*. Vol. 12 No. 5, pp. 680-697 [11]

² Amrial, Mikail Ahmad, Arundina Tika (2019). Implementation of dual monetary policy and its relevance to inflation and unemployment in the Phillips curve context in Indonesia. *International Journal of Islamic and Middle Eastern Finance and Management*. Vol. 12 No. 5, pp. 680-697 [11]

3. Analysis of Selected Literature

The study, conducted by Sasongko, shows a one-way relationship between inflation and unemployment [5]. The models Granger used Causality, Regression Vectors, and Impulse Response Functions (IRFs) models show that from 1984 to 2017 Unemployment causes inflation, but inflation does not cause unemployment. This proves that Phillips' (1958) model which states that there is a reciprocal relationship between inflation and unemployment does not occur in Indonesia.

Indonesia in 1969 was able to save the government's economy with a government program of tightening money and contractionary policies that were effective in taming the inflation rate. Bank Indonesia implemented inflation targeting in July 2005 and empowered Regional Inflation Monitoring Teams in each region to encourage inflation control [5].

In 2001 the number of workers was 26,579,000 or 29.7% of the total working-age population. In 2017 the number increased to 47,420,633 or 38.08% of the total working-age population. An increase in investment encourages an increase in the number employed or reduces unemployment. The percentage of people over 15 years old who work in the primary sector (agriculture, plantations, forestry, hunting, and fisheries) is declining sharply. In 1991, 53.29% of the population worked in primary schools, and the proportion decreased to 31.74% in 2016. Agriculture dominates the primary sector because most of the population works in this sector (Thayaparan 2014, Yelwa et al. 2015, Kebschull 1987, Israel 2015). Constraints on undeveloped irrigation systems affected the number of agricultural workers in the period before 2005.

From the discussion above, it can be concluded that various factors affect unemployment in Indonesia, namely: (1) Season factors affect unemployment, but the agricultural sector still absorbs most of the Indonesian workers; (2) The younger generation (aged 15–19 years) postponed work and chose to continue their studies. (3) Improving economic conditions, especially women choosing to work at home (Ehrenberg and Smith 2012).

Inflation policy is less effective in overcoming unemployment in Indonesia. Indonesia's geographical condition causes it to take a long time for the implementation of the macro policy due to differences between regions.

How is the government's size related to inflation and unemployment? Our analysis of the selected literature concludes as follows: (1) The potential relationship between government measures and unemployment and inflation differs from the way government measures are measured. The most effective proxy measures to explain unemployment variation are indirect taxes and government consumption expenditures. For inflation, direct taxes, and government consumption expenditure are the two most important proxies for establishing a relationship between government size and inflation. (2) Increased government consumption spending puts downward pressure on interest-rate-sensitive private investment, resulting in increased unemployment. (3) Higher production costs mean higher production costs in corporate terms. Higher taxes negatively affect consumer disposable income, resulting in lower demand for goods and services, fewer job opportunities and higher unemployment. (4) Turning to inflation, increased government spending pushes demand up and thus raises prices

Analysis of the results of [11] research regarding the relationship between inflation, unemployment and dual monetary policy is: (1) The monetary policy response to positive unemployment rate growth. This means that when the unemployment rate increases, Bank Indonesia responds with expansionary policies to boost the economy. Economic growth is expected to create new jobs and suppress unemployment growth. (2) The monetary policy response to the inflation rate is negative, meaning that when there is an increase in inflation, the response to monetary policy is to reduce inflation, which can continue to increase if the money supply does not decrease. This policy is in line with monetary policy theory which states the type of contractionary policy carried out to slow economic activity, which is done by reducing the money supply to maintain price stability [12]. (3) The implementation of dual monetary policy in Indonesia has not contributed much to solving the problems of inflation and unemployment. (4) Kurva Phillips in Indonesia had no relevance from February 2005 to August 2017. The inflation rate responds positively to shocks to the unemployment rate. Shocks in the unemployment rate have little effect on the inflation rate.

The results of the study show that the monetary policy response in Indonesia is in accordance with policy theory: which is contractionary when there is an increase in inflation growth and expansionary when there is an increase in the unemployment rate.

Does the country's political situation affect economic growth? As Beenish Suhail (2021) research, an increase in the inflation rate will reduce economic activity and reduce GDP growth. Political uncertainty scares both domestic and international investors from investing [13]. Research was conducted in Pakistan, but the results are valid to be applied in Indonesia [13].

4. Conclusion

There is a one-way relationship between inflation and unemployment. Indonesia's condition from 1984 to 2017 shows that unemployment causes inflation, but inflation does not cause unemployment

Inflation policy is less effective in overcoming unemployment in Indonesia, meaning that increasing the inflation rate is inefficient to reduce the unemployment rate considering Indonesia's geographical conditions require a long time for macro policy implementation due to differences between regions.

There is a causality relationship between government measures and unemployment and inflation with varying outcomes.

Indonesia is able to implement monetary policy based on sharia principles because the instruments used cannot be separated between the real sector and the financial sector. The monetary policy response in Indonesia is in accordance with policy theory: contractionary when there is an increase in inflationary growth and expansionary when there is an increase in the unemployment rate. Indonesia's dual monetary policy focuses more on achieving the inflation target. Monetary authorities should be more responsive to the problem of unemployment by a proportional measure to inflation.

Indonesia needs to create an environmentally conducive business with reduced taxes and deregulation. This can contribute to the management of unemployment and the inflation rate.

Author Contributions: Conceptualization, E.S. and E.S.S.; literature review, E.S. and E.S.S.; methodology, E.S. and E.S.S.; software, E.S. and E.S.S.; validation, E.S. and E.S.S.; data analysis, E.S. and E.S.S.; data curation, E.S. and E.S.S.; writing original draft preparation, E.S. and E.S.S.; writing review and editing, E.S. and E.S.S.; visualization, E.S. and E.S.S.; supervision, E.S. and E.S.S.; project administration, E.S. and E.S.S.. All authors have read and agreed to the published version of the manuscript.

Conflicts of Interest: The authors declare no conflict of interest.

References

1. Al-Zeaud, H. A. (2014). Public debt and economic growth: An empirical assessment. *European Scientific Journal*, 10(4).
2. Ha, O. K., & Andresen, M. A. (2017). Unemployment and the specialization of criminal activity: A neighborhood analysis. *Journal of Criminal Justice*, 48, 1-8.
3. Septiatin, A. A., Mawardi, M. M., & Rizki, M. A. K. (2016). Pengaruh Inflasi Dan Tingkat Pengangguran Terhadap Pertumbuhan Ekonomi Di Indonesia. *I-Economics: A Research Journal On Islamic Economics*, 2(1), 50-65.
4. Clarida, R., Gali, J. and Gertler, M. (1999), "The science of monetary policy: a new Keynesian perspective", *Journal of Economic Literature* , Vol. 37 No.4, pp.1661-1707.
5. Sasongko Gatot, Huruta Andrian Dolfriandra (2018). The Causality Between Inflation and Unemployment. *Verslas: Teorija Ir Praktika / Business: Theory And Practice* ISSN 1648-0627 / eISSN 1822-4202. <http://btp.press.vgtu.lt> (number 12)
6. Furuoka, F. (2008). Unemployment and inflation in the Philippines: New evidence from vector error correction model. *Philippine Journal of development*, 35(1), 93.
7. Caporale, G. M., & Skare, M. (2011). Employment growth, inflation and output growth: Was Phillips right. Evidence from a dynamic panel.
8. Furuoka, F. (2007). Does the "Phillips curve" really exist? New empirical evidence from Malaysia. *Economics Bulletin*, 5(16), 1-14.
9. Ştefan, C., & Bratu, A. (2016). The inflation-unemployment tradeoff in a macroeconomic model. *British Journal of Economics, Finance and Management Sciences*, 12(1), 22-31.
10. Afonso Antonio, Sein Huseyin, Kaya Ayse (2021). *Government Size, Unemployment and Inflation Nexus in Eight Large Emerging Market Economies. Journal Review of Public Economics* 236-(1/2021): 133-170. (number 14)
11. Amrial, Mikail Ahmad, Arundina Tika (2019). Implementation of dual monetary policy and its relevance to inflation and unemployment in the Phillips curve context in Indonesia. *International Journal of Islamic and Middle Eastern Finance and Management*. Vol. 12 No. 5, pp. 680-697 (number 11)
12. Mankiw, N. G. (2013). Defending the one percent. *Journal of economic perspectives*, 27(3), 21-34.
13. Beenish Suhaila, Qingwei Li (2021). *The Impact of Political Instability on Economic Growth in Pakistan*. *Revista Argentina de Clínica Psicológica* Vol. XXX, N°2, 189-199 (number 13)
14. Selim Mohammad, Hassan M. Kabir (2018). Interest-free monetary policy and its impact on inflation and unemployment rates. *ISRA International Journal of Islamic Finance*. Vol. 11 No. 1. pp. 46-61 (number 10).