

Macroeconomic Factors Driving Inflation: A Panel Data Study of ASEAN Countries

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Abstract: The increase in price for consumer goods and services has an impact on the economic growth of a country. Many of the previous studies had been done to determine what really causes inflation across many countries. Referring to the existing variables that impact the growth of inflation, this study aims to ascertain what factors cause inflation in four selected countries, namely Malaysia, Indonesia, Thailand and Vietnam. The study also investigates the relationship between inflation with several independent variables, which consist of money supply, interest rate, unemployment, gross domestic product, exchange rate, government expenditure and imported goods and services. The data used in this study were obtained from various sources such as the World Bank, the International Monetary Fund (IMF), as well as Eikon. The type of research in this study is panel data, consisting of time series from the year 2008 to 2023 annually. The diagnostic tests conducted include a normality test, a Variance Inflation Factor (VIF) test, a Modified Wald Test, as well as a unit root test for each variable. To estimate the panel data, Pooled Ordinary Least Squares (POLS) is used. The study finds that among seven variables, government expenditure, interest rate and imported goods and services significantly affected the inflation. Interest rate and imported goods and services have a positive relationship with inflation, while government expenditure has a negative relationship with inflation.

Keywords: *Inflation, ASEAN Countries, Macroeconomic variables, Pooled Ordinary Least Squares (POLS), Panel data analysis*

1. Introduction and Background

Inflation is a global issue that has persisted despite extensive efforts from policymakers, economists, and financial institutions. It continues to impact economies all over the world, affecting individuals, businesses, and governments. Ming-Yu Cheng and Hui-Boon Tan (2002) stated that inflation causes problems and messes with the economy, possibly affecting economic growth. But, as we all know, fixing inflation is not easy. To manage it successfully, it is crucial to accurately identify its underlying causes. An incorrect diagnosis may result in applying inappropriate remedies, which could inadvertently harm the economy. Unveiling the determinants of inflation is crucial as it is one of the key factors to maintain a country's macroeconomic equilibrium and formulate judicious economic policies, particularly within rapidly evolving economies. Continuous pressure of inflation was one of the factors of the gradual decline of economic growth of Southeast Asia in the second quarter of 2023, from the strong growth in 2022, along with other factors, including a global economic downturn, low commodity prices, and tight monetary policies (Bugrov, Dhara, & Kamarudin, 2023).

Historically, Malaysia, Indonesia, Thailand and Vietnam, which are among the developing countries in Southeast Asia, have experienced tough times relating to the inflation issue as their economies were also affected by what is happening globally. For instance, Malaysia experienced the highest level of inflation in March 1974 at the rate of 17.3% due to the sudden increase in oil prices (Chiew & Sek, 2019), caused by the 1973 oil crisis. An increase in oil prices affects the business costs. This will increase the price of goods and services available. The inflation rate also increased during the Asian financial crisis in 1997 and 1998, from 2.7% to 5.3% where the depreciation rate of the Malaysian Ringgit had reached 28.2% against the US Dollar (Chiew & Sek, 2019). According to World Bank Open Data, Indonesia and Thailand had encountered a high inflation rate of 1,136.254% in 1996 and 24.314% in 1980, respectively. The increase in money supply in Indonesia was one of the factors, where there was an increase of almost fivefold in 1965. Meanwhile, in Thailand, their economy suffered from the sudden increase in oil prices as well as the global recession from 1980 to 1985 (Krongkaew, 1999). To further discover the effects of inflation, rising inflation has a direct

relationship with rising costs for products and services, which reduces customers' purchasing power as well as raising the price of goods and services (Yusof et al, 2021). People are immediately impacted by this decrease in purchasing power, which limits their capacity to make purchases for necessities.

Therefore, this study intends to determine the factors of inflation in selected countries, specifically Malaysia, Indonesia, Thailand, and Vietnam, focusing on the unemployment rate, exchange rate, Growth Domestic Product (GDP), interest rate, import volume of goods and services, money supply (broad money) and general government total expenditure. This paper contributes to the government policies, perhaps in tightening monetary policy, considering giving subsidies, and controlling the fiscal policy spending. If the government fails to control inflation, the most significant impact is substantial economic instability. This includes weakening the currency, which drives up import costs and throws off the trade balance, and raising interest rates, which makes borrowing more expensive and slows down economic activity. In addition, understanding and accurately forecasting inflation is critical for policymakers, particularly central banks, as it informs monetary policy decisions aimed at maintaining economic stability (Sengupta et al., 2024). In addition, controlling the factors that contribute to inflation would also assist individual in managing their spending pattern and improve impulse buying.

This article is structured as follows. The next section explains the empirical studies on the impact of inflation in various countries and aspects. Then, it continues to explore the methodology employed in this study. Moreover, the key findings and analysis are explained in section four of the article. The final part of this article will conclude the contents together with the implications and direction of future research.

2. Literature Review

Various theories related to the economic determinants have been highlighted to explain the relationship between variables. The underpinning theories that are related include:

Keynesian theory

This underpinning theory has been developed by John Maynard Keynes (1883–1946), who is regarded as the founder of modern macroeconomics. One of the important points in this theory is explaining aggregate demand, which is measured by the sum of spending by households, businesses, and the government. The aggregate demand is the most important driving force in an economy, whereby if the aggregate demand is insufficient, recession and unemployment could affect the country's economy. He added, Keynesian economics provides insights into the relationship between interest rates, inflation, and overall economic activity, especially in the short run. This theory also emphasized the government's intervention to stabilize the economic condition. In the situation of recession, the government will increase spending or cut taxes to boost aggregate demand. This can help to close the output gap and reduce unemployment (Greenlaw & Shapiro-Ilan, 2018; Jahan et al., 2014). Government spending can also drive up demand for goods and services, potentially leading to demand-pull inflation (George-Anokwuru & Ekpenyong, 2020).

Empirical Evidence on the Variables

There have been many studies conducted to find the determinants of inflation that significantly affect the inflation rate, for instance, the consumer price index, which includes Interest Rate, GDP, Unemployment Rate, Exchange Rate, Money Supply, Government Total Expenditure and Imported Goods and Services. According to Ani Movsisyan et al. (2024) study stated that inflation functions like a tax increase that reduces household purchasing power, making essential commodities such as food and medication less affordable, which in turn triggers a series of health-related issues. This situation could lead to a decline in living standards, as people nowadays have to spend more on things than before to obtain the same quantity of goods and services. These economic pressures can worsen existing inequalities, as people with lower incomes will be more affected by rising costs.

In addition, Jayalakshmi (2023) explores the causes and consequences of inflation in India highlighted Inflation, while decreasing consumer purchasing power and causing a mismatch between supply and demand, is essential to the economy as it raises the cost of goods and services, thereby boosting output and contributing to economic expansion. Besides, people and businesses will be more careful with their spending, which helps

keep the economy from becoming more unstable.

Money supply and inflation

An empirical study done by Gyebi & Boafo (2013) that used the Ordinary Least Squares (OLS) model in their analysis found that money supply had a significant impact on inflation in Ghana. The inflation rate will exist in a condition of growing money supply than the economy's ability to produce goods and services, and thus will tend to raise prices. Hashim et al. (2014) also agreed that money supply has a significant relationship with inflation. Further, the impact of short and long-run money supply on inflation has been studied by Lim and Sek (2015). The findings demonstrated that money supply has a short-run influence on inflation in low-inflation countries, which leads to a positive impact on inflation. Meanwhile, the excess money supply has a significant negative impact on inflation in high-inflation countries, which means that an increase in the excess money supply will increase the rate of inflation. However, a contradictory relationship was found by Salim et al (2021) in their study of determinants of inflation in 10 selected countries from the period of 2006 to 2015. He found that the money supply has a significant negative relationship with inflation at 1% level, which means that an increase in the money supply will decrease inflation. The increase in the money supply is faster than the growth in real output will cause inflation because more money is chasing the same number of goods. Hence, the formulated hypothesis can be explained by:

H1: There is a positive relationship between money supply and inflation rate.

Interest rate and inflation

Interest rate is one of the determinants that influence the inflation rate. It signifies the cost of borrowing and is typically expressed as a proportion of the principal sum (the amount borrowed) to modulate economic activity, with a primary objective of maintaining price stability (Efendi et al., 2023). According to the Fisher effect theory, the relationship between interest rates and inflation is positive, as the lenders will demand higher nominal interest rates in the long run to maintain their return when they want to adjust for inflation (Fisher, 1930). In terms of monetary policy, central banks will raise interest rates when inflation is high to maintain price stability, hence, to control spending by consumers (Mankiw, 2021). Salim et al. (2021) studied the factors of inflation in selected countries from the period of 2006 to 2015, which used the Pooled Ordinary Least Squares, Random Effect Model, and Fixed Effect Model found that interest rate has a negative and significant relationship with inflation in all models. An increase in interest rates typically leads to reduced borrowing and spending, thereby dampening aggregate demand and exerting downward pressure on inflation. Conversely, a decrease in interest rates encourages borrowing and investment, stimulating economic activity and potentially leading to inflationary pressures (Sanghvi, 2024). Keynesian macroeconomic theory posits an inverse relationship between interest rates and investment, where higher interest rates increase the cost of borrowing, leading to a reduction in investment, while lower interest rates make borrowing more attractive, encouraging investment (Chowdhury et al., 2024). Thus, the hypothesis can be written as:

H2: There is a negative relationship between interest rate and inflation rate.

Unemployment rate and inflation

Another indicator which commonly used to measure the impact on the inflation rate is the unemployment rate. Kurniasih & Kartika (2020) studied the relationship between inflation and unemployment rate and found a negative and significant impact on inflation in the long run for the period of 1988 to 2017 in Indonesia. Increasing the unemployment rate in the long run will influence inflation to go down due to lower demand for goods and services caused by limited income. It is consistent with the Phillips curve, which describes the theoretical inverse relationship between unemployment and inflation, suggesting that as unemployment decreases, inflation tends to increase, and vice versa (Lewin et al., 2025). The reason is that when unemployment falls, wages tend to rise due to increased competition for labor, leading to higher production costs and ultimately higher prices for goods and services (Pfajfar & Winkler, 2024). On the other hand, lower unemployment rates lead to higher inflation as it will increase the demand for labor, which could drive up wages and prices (Rolim, 2024). Additionally, Al-Mustafa (2023) identified a negative and significant relationship between the unemployment rate and inflation in the short run.

The hypothesis for this relationship is:

H3: There is a negative relationship between the unemployment rate and the inflation rate.

Growth Domestic Product (GDP) and inflation

Gross domestic product (GDP) is also frequently used to measure a country's economic output and is one of the key indicators of economic transactions and aggregate demand. The demand for goods and services will increase when GDP growth is higher, as it leads to pressure on prices, particularly when the economy is at full capacity operations, hence, inflation occurs in the economy. Conversely, when the demand decreases, it will slow the GDP growth and result in deflation (Lastauskas & Nguyen, 2024). Changes in GDP growth can also shape inflation expectations among economic agents, including consumers, businesses, and investors. Based on these findings, we can formulate the following hypotheses:

H4: There is a positive relationship between GDP and the inflation rate.

Exchange rate and inflation

The exchange rate plays a pivotal role in influencing the changes in inflation, particularly in open economies. Exchange rate movements can directly impact the prices of imported goods and services, as well as influence overall inflation levels (Lastauskas & Nguyen, 2024). A devaluation of the domestic currency would contribute to inflation of the imported goods and services as it becomes more expensive for domestic consumers (Yoldaş, 2024). This effect is particularly pronounced for countries that rely heavily on imports or have a significant portion of their trade denominated in foreign currencies. Contrarywise, a strengthening domestic currency can reduce imported inflation, which causes a buffer against rising prices. However, the impact of exchange rate fluctuations on inflation is not always straightforward and can be influenced by various factors, including the degree of pass-through from exchange rates to prices, the structure of the economy, and the credibility of monetary policy. Exchange rate fluctuations can have broad economic impacts, influencing international trade terms between countries such as China and Japan (Liu, 2024). Hence, the hypothesis would be:

H5: There is a negative relationship between the exchange rate and inflation rate.

Government Expenditure and Inflation

Government expenditure can exert a significant influence on inflationary pressures within an economy. According to George-Anokwuru and Ekpenyong (2020), increased government expenditure—particularly when funded through borrowing or money creation—can significantly raise aggregate demand. When this occurs in an economy nearing full capacity, it may contribute to inflationary pressures. This effect is applied when government spending is directed towards sectors with limited supply elasticity, causing prices to rise more rapidly in response to increased demand. The relationship between government expenditure and inflation is complex and multifaceted, influenced by the fiscal policy stance, the level of economic activity, and the structure of the economy. Based on the Okunlola et al. (2024), government expenditure demonstrated a positive impact on economic growth, referring to Keynesian economics. However, other studies suggest that public expenditure may have negative effects under certain circumstances (Sosvilla-Rivero et al., 2025). Investment in critical sectors such as education and infrastructure can boost economic activity and enhance productivity and competitiveness over the long term (Garg et al., 2024). Hence, the hypothesis is:

H6: Is there a positive relationship between government expenditure and the inflation rate?

Imported goods and services and inflation

Imported goods and services exert a notable influence on inflation dynamics, particularly in economies with significant international trade exposure. Changes in the prices of imported goods and services, driven by factors such as exchange rate fluctuations, global commodity prices, and trade policies, can directly impact domestic inflation levels. A depreciation of the domestic currency, for example, tends to increase the cost of imported goods, leading to imported inflation, as domestic consumers face higher prices for these products (Aragaw, 2024).

H7: Is there a positive relationship between imported goods and services and the inflation rate?

3. Research Methodology

This study employed a quantitative method in measuring the relationship between macroeconomic variables towards inflation. The macroeconomic variables that are used include money supply, interest rate, unemployment, GDP, exchange rate, government expenditure, and imported goods and services. The sample of this study is Malaysia, Indonesia, Thailand, and Vietnam, with the time frame from 2008 to 2023. The listed variables were chosen because it is crucial in determining inflation rates, as they provide a comprehensive view

of the overall economic condition (Immanuel & Yayamo, 2020). Data is obtained from the International Monetary Fund website, Eikon Database, and the World Bank website. As this study integrates time series and cross-sectional data, the panel data analysis method is more appropriate to explain the relationship between variables. Hence, the Pooled Ordinary Lease Square model is expressed as below:

$$INF_{it} = \alpha + \beta_1 MSS_{it} + \beta_2 IR_{it} + \beta_3 UNEMP_{it} + \beta_4 GDP_{it} + \beta_5 ER_{it} + \beta_6 GE_{it} + \beta_7 IMP_{it} + \varepsilon_{it}$$

Where;

INF_{it} = Consumer Price (annual% %) of country i during year t
 MSS_{it} = Broad Money Growth of country i during year t
 IR_{it} = Interest rate on lending by the central bank (%) of country i during year t
 $UNEMP_{it}$ = unemployment rate (%) of country i during year t
 GDP = GDP growth (%) of country i during year t
 ER_{it} = Official exchange rate (LCU per US\$, period average in country i during year t
 GE_{it} = Government expenditure of country i during year t
 IMP = Imported goods and services of country i during year t
 ε_{it} = error term
and α is an intercept and $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5, \beta_6, \beta_7$ is the model's variable.

For the purpose of assessing the robustness or validity of the regression model and the outcomes it produces, panel data diagnostic checks are required. The diagnostic tests that are conducted for this study are normality, unit root test, and variance inflation factor test.

4. Results and Analysis

Unit Root Test

Table 1: Unit root test

Test	Inflation	MSS	IR	UNEMP	GDP	ER	GE	IMP
LLC	-4.5041***	-4.9884***	-4.9434***	-2.9198***	-5.8128***	-2.12132**	-3.3856***	-5.7285***
IPS	-5.2090***	-4.6830***	-4.1438***	-1.7793**	-3.8058***	-2.22029**	-4.1935***	-4.5017***
ADF	39.0534***	35.4379***	31.6152***	15.8377*	29.2784***	17.9946**	31.8757***	34.5567***
PP	82.2599***	59.1382***	55.3001***	15.7178*	37.1089***	28.9937***	61.4776***	52.6376***

Table 1 indicates the findings of the unit root test, which uses Levin, Lin & Chu (LLC), Im, Pesaran & Chin (IPS), ADF Fisher Chi-Square (ADF), and PP Fisher Chi-Square (PP). Referring to the table, it indicates that all variables are stationary either at the level or at the first difference lag.

Pooled Ordinary Least Squares (POLS) result

Table 2: Regression result using the POLS Model

Dependent variable: Inflation	
Independent variable:	
Money Supply (MSS)	-0.0595
Interest Rate (IR)	1.1887***
Unemployment Rate (UNEMP)	0.0937
Growth Domestic Product (GDP)	-0.3023
Exchange Rate (ER)	-3.8206
Government Expenditure (GE)	-0.6605*
Import of goods and services (IMP)	0.0883*

R-squared	0.5620
F-statistic	9.5302***
Observations	60

The regression result in Table 4.2 reveals that the interest rate (IR) has a positive and significant correlation with inflation, as indicated by a coefficient of 1.1887 and a p-value of 0.0001. It means that, to control inflation from rising for a long period, the central bank will keep on maintaining a high nominal interest rate to make borrowing more expensive and attract more savings. Hence, it will slow down consumer spending and people prefer to save their money since the returns are better. It is in opposition to the Keynesian theory and thus, the hypothesis H2 is rejected. This finding is in line with previous studies by Adu and Marbuah (2011) and Uddin et al. (2014) but contrasts with the research by Salim et al. (2021) and Ayub et al. (2014), which observed a negative impact on the dependent variable. After the COVID-19 pandemic, the economic conditions are relatively unstable for most countries; thus, some adjustments have been made to tailor to the conditions. Such as the Malaysian government has determined the rate of Overnight Policy Rate (OPR) at 3.00 percent since May 2023 to stabilize inflation after giving incentives such as a moratorium during the post covid period.

Similarly, the import volume of goods and services (IMP) exhibits a positive and significant relationship with inflation, as shown by a coefficient of 0.0883 and a p-value of 0.0160; thus, the H7 is not rejected. This result aligns with the findings of Arif & Ali (2012) and Bashir et al. (2011) in the long run, but differs from Hashim et al. (2014), who found a negative and insignificant relationship. Inflation can occur when the price of goods and services increases, which may happen due to exchange rate fluctuations or higher global demand. As imported items become more expensive, the overall price level in the country can rise. In addition, when domestic demand for goods is higher than what producers can supply, prices tend to increase. To meet this excess demand, a country may increase its imports. If these imports are costly, they can further contribute to inflation. Therefore, both global and local factors can cause prices to rise.

In contrast, Government expenditure (GE) demonstrated a negative and significant impact on inflation, with a coefficient of -0.6605 and a p-value of 0.0103. The finding strongly failed to reject H6. This result is in accordance with the findings of George-Anokwuru & Ekpenyong (2020) in the long run, but contrasts with Nguyen (2014), Shifaniya et al. (2022), and Nguyen et al. (2022), who found that government expenditure positively and significantly influences inflation. In a general situation, government expenditure has a positive relationship with inflation, as increased spending raises aggregate demand, which can lead to upward pressure on prices. However, for certain conditions, if the spending results in higher employment and improved productivity, it can expand the economy's output capacity. In such cases, especially over the long term, the supply-side improvements may help offset inflationary pressure. Therefore, under specific conditions, for example, when economic slack or when investing in productive capacity, higher government spending may contribute to stable or even lower inflation. The finding contradicts the Keynesian theory, which states a positive relationship between government spending and inflation. However, the relationship could be negative if the output or economy is already near full capacity, thus the government will implement fiscal tightening, which involves the government will cut spending and increasing taxes. Therefore, the aggregate demand will fall and pressure the inflation to drop via less borrowing and higher interest rates. To further look at the performance of countries such as Thailand, where the country implemented a 145billion cash-transfer "digital wallet" aimed at boosting consumption. However, the inflation stayed low (0.6–1.1%) due to loose capacity and external deflationary forces (Dixon, 2024). Central banks often raise interest rates to combat inflation (Ibrahim et al., 2023).

Overall model indicates that three variables are significant and fit to explain the model of the relationship between macroeconomic variables towards the inflation rate. The R-squared shows 56.20% variation in the inflation rate (INF) can be explained by the significant independent variables, which are interest rate, government expenditure and import goods and services. The lower R-squared is contributed from the high noise or randomness in the data due to the cross-sectional sample and period being taken into account. Besides, the lower number of observations also resulted in the weakness of the relationship between variables.

Diagnostic Test

Table 3: Normality test

	INF	MSS	IR	UNEMP	GDP	ER	GE	IMP
Skewness	2.849037	1.138590	1.120291	0.705853	-1.533747	-0.947059	0.283494	-0.361295
Kurtosis	13.74358	4.336262	4.935013	2.535322	6.405019	3.226461	2.638046	2.679841

Based on the table above, the inflation variable has a 2.849037 skewness, which means that the distribution is skewed to the right. The unemployment rate has a value of 0.705853, which means that the distribution is slightly skewed to the right. Gross domestic product has a value of -1.533747 that the distribution is skewed to the left. Next, for the exchange rate, the figure is -0.947059, which shows that the distribution is slightly skewed to the left. Additionally, the Interest Rate has a positive skewness which is 1.120291 from the distribution. Broad money growth has a value of 1.138590, and the distribution is skewed to the right. Surprisingly, Government expenditure has a near-zero skewness, which indicates a symmetrical distribution which is 0.283494. Lastly, for skewness, imported goods and services also have a near-zero but negative skewness, which means it skewed to the left, although very slightly at -0.361295.

Variance Inflation Factor (VIF)

Table 4: Multicollinearity result

Variable	Centered VIF
MSS	1.197154
IR	1.592154
UNEMP	1.058069
GDP	1.681282
ER	1.130587
GE	1.537887
IMP	1.417846

The Variance Inflation Factor (VIF) test is utilized to identify if there is a presence of multicollinearity among the independent variables. Multicollinearity appears when independent variables in the linear regression are heavily correlated. Based on Table 4.3, the scores for each variable were found to be below 5, which indicates that a multicollinearity issue does not exist between the independent variables.

5. Implications and Recommendations

Identifying the factors that will influence inflation is crucial to the economic players. The findings show that the relationship between inflation and interest rates holds a significant positive implication for central banks as policymakers. Central banks are charged with upholding the stability of prices, and often set interest rates to influence inflation levels. By regulating the interest rates, the cost of borrowing and spending in the economy can be controlled by central banks. When inflation rises above the target level, central banks typically raise interest rates to cool down economic activity and reduce price pressures. Conversely, lowering interest rates can stimulate economic growth and inflation when it is below target or the economy is sluggish.

The relationship between government expenditure and inflation carries important implications for central banks. Typically, increased government spending raises aggregate demand, which can lead to higher inflation

if the economy is operating near full capacity. However, empirical results may vary by country and context. For instance, in some regression analyses, government spending appears to hurt inflation, possibly due to its role in boosting long-run supply or stabilizing output during recessions. These mixed findings suggest that policymakers should carefully consider the composition and context of fiscal policy when assessing its inflationary effects. Moreover, imported goods and services can significantly impact inflation, particularly when their prices increase due to global supply shocks or exchange rate depreciation. As such, central banks may analyze which imported items contribute most to domestic inflation. Since the exchange rate affects the cost of imports, central banks should also monitor the foreign exchange market and manage reserves where appropriate. A stronger domestic currency can help reduce the cost of imports, thereby mitigating imported inflation pressures.

Based on the study, there are a few recommendations that can be considered in order to further improve the results of the study. Firstly, the study's focus should be widened, including those in Asia, Europe, and the Middle East, to determine and identify global trends in the inflation rates to include other nations as well, rather than only those in the ASEAN region, such as Malaysia, Indonesia, Thailand, and Vietnam. Besides that, future researchers can find and add more independent variables that are compatible with the study, such as government revenue, the price of oil, and more. These variables could be included in the study to understand their implications for inflation.

Conclusion

In conclusion, this study has provided valuable insights into the key factors influencing inflation rates in Malaysia, Indonesia, Thailand, and Vietnam over the period from 2008 to 2023. The results of the static panel data analysis indicate that interest rates, government expenditure, and imported goods and services significantly impact the inflation in these countries. Based on these findings, it is recommended that policymakers adopt effective strategies to manage consumer spending, regulate government expenditure, and closely monitor the volume and pricing of imported goods and services. Such measures are essential to maintaining inflation at manageable levels and preventing adverse effects on the overall economy.

References

- Aboagye-Da-Costa, D. P. (2012). Internet Quality in Southern Ghana for Businesses Vendor: Viope Solutions Oy. Bachelor Thesis. Leppävaara, Finland: Laurea University of Applied Sciences.
- Adu, G., & Marbuah, G. (2011). Determinants of inflation in Ghana: An empirical investigation. *South African Journal of Economics*, 79(3), 251–269.
- Al-Mustafa, A. (2023). The study of factors influencing the movement of inflation in Thailand. *Efficient: Indonesian Journal of Development Economics*, 6(3), 244–260.
- Ani Movsisyan, Wendel, F., Bethel, A., Coenen, M., Krajewska, J., Littlecott, H., Stöckl, H., Voss, S., Wollmershäuser, T., & Rehfuess, E. (2024). Inflation and health: A global scoping review. *The Lancet Global Health*, 12(6), e1038–e1048. [https://doi.org/10.1016/s2214-109x\(24\)00133-5](https://doi.org/10.1016/s2214-109x(24)00133-5)
- Aragaw, A. (2024). The inflationary effect of the budget deficit: Does financial sector development matter? *Journal of Innovation and Entrepreneurship*, 13(1). <https://doi.org/10.1186/s13731-024-00394-4>
- Arif, K. M., & Ali, M. M. (2012). Determinants of inflation in Bangladesh: An empirical investigation. *Journal of Economics and Sustainable Development*, 3(12), 9–17.
- Ayub, G., Zaman, Q., & Atif, M. (2014). Relationship between inflation and interest rate: Evidence from Pakistan, 3(4), 51–55.
- Bashir, F., Nawaz, S., Yasin, K., Kursheed, U., Khan, J., & Qureshi, M. J. (2011). Determinants of inflation in Pakistan: An econometric analysis using the Johansen co-integration approach. *Australian Journal of Business and Management Research*, 1(5), 71–82. <https://www.ajbmr.com/articlepdf/ajbmr01n0509.pdf>
- Bugrov, D., Dhara, D., & Kamarudin, K. (2023, October 4). Southeast Asia's economies: Softening but still Strong. *McKinsey & Company*. <https://www.mckinsey.com/featured-insights/future-of-asia/southeast-asias-economies>
- Chiew, E. W., & Sek, S. K. (2019, December). Examining the effects of domestic versus global price uncertainty on sectoral price inflation in Malaysia. *MATEMATIKA: Malaysian Journal of Industrial and Applied*

- Mathematics*, 35(Special), 99–122. <https://matematika.utm.my/index.php/matematika/article/view/1266/836>
- Chowdhury, I., Hoffmann, M., & Schabert, A. (2006). Inflation dynamics and the cost channel of monetary policy Transmission. *European Economic Review*, 50(4), 995–1016.
- Dixon, C. (2024). Thailand's Digital Wallet Goes Live. <https://gpilondon.com/publications/thailands-digital-wallet-goes-live>
- Efendi, R., Srifitri, S., & Berliana, S. (2023). *The impact of interest rates on firms' financial decisions*. arXiv.
- Fisher, I. (1930). *The theory of interest*. Macmillan.
- Garg, S., Mittal, S., & Garg, A. (2024). Investigating the implications of goods and services tax revenue on Economic growth: Empirical insight from the Indian economy. *Statistics and Public Policy*, 1. <https://doi.org/10.1080/2330443x.2024.2436196>
- George-Anokwuru, C. C., & Ekpenyong, B. I. (2020). Government expenditure and inflation in Nigeria. *Journal of Economics and Management Sciences*, 3(2), 29–37. <https://j.ideasspread.org/index.php/jems/article/view/573/530>
- Greenlaw, S. A., & Shapiro-Ilan, D. I. (2018). Aggregate Demand in Keynesian Analysis. <https://opentextbc.ca/principlesofeconomics2eopenstax/chapter/aggregate-demand-in-keynesian-analysis/>
- Gyebi, F., & Boafo, G. K. (2013). Macroeconomic determinants of inflation in Ghana from 1990–2009. *International Journal of Business and Social Research*, 3(6), 81–93.
- Hashim, J. M., Osman, I., & Nura, M. (2014, August 26). The determinants of inflation in Malaysia. *ResearchGate*. <https://www.researchgate.net/publication/283291579>
- Ibrahim, S. N. S., Omar, N., & Arshad, Y. (2023). External and Internal Determinants of an Islamic Bank's Financial Performance in Malaysia. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 13(2). <https://doi.org/10.6007/ijarafms/v13-i2/17402>
- Immanuel, D., & Yayamo, E. (2020). Monetary Economics Overview Includes Monetary Policy Instruments, Functions and Impacts. *Journal Dimension Management and Public Sector*, 1(2), 20. <https://doi.org/10.48173/jdmps.v1i2.50>
- Jahan, S., Mahmud, A. S., & Papageorgiou, C. (2014). Back to Basics: What Is Keynesian Economics? - The Central tenet of this school of thought is that government intervention can stabilize the economy. *Finance & Development*, 51(3). <https://doi.org/10.5089/9781475566987.022.a015>
- Jayalakshmi, S. (2023). A study on inflation in India: Causes and consequences. *Dogo Rangsang Research Journal*, 13(4), 1–7.
- Krongkaew, M. (1999, December). Capital flows and economic crisis in Thailand. *The Developing Economies*, 37(4), 395–416.
- Kurniasih, E. P., & Kartika, M. (2020). Do trade-between inflation and unemployment happen in Indonesia? *International Journal of Economics, Business and Management Research*, 4(4), 46–57.
- Lastauskas, P., & Nguyen, A. D. M. (2024). Spillover effects of US monetary policy on emerging markets amidst Uncertainty. *Journal of International Financial Markets, Institutions and Money*, 92, 1–15.
- Lewin, N., Orchard, J., & Dasgupta, K. (2025). Do people care more about inflation or wage growth? *FEDS Notes*. <https://doi.org/10.17016/2380-7172.3701>
- Lim, Y. C., & Sek, S. K. (2015). An examination of the determinants of inflation. *Journal of Economics, Business and Management*, 3(7), 678–682. <https://doi.org/10.7763/joebm.2015.v3.265>
- Liu, S. (2024). Impact of exchange rate fluctuation on import and export enterprises in China and Japan and countermeasures. *Highlights in Business Economics and Management*, 24, 322. <https://doi.org/10.54097/4mmr4q90>
- Mankiw, N. G. (2021). *Principles of economics* (9th ed.). Cengage Learning.
- Ming-Yu, C., & Hui Boon, T. (2019). Inflation in Malaysia. *International Journal of Social Economics*, 29(5), 411–425. <https://doi.org/10.1108/ijse>
- Nguyen, T. D. (2014). Impact of government spending on inflation in Asian emerging economies: Evidence from India, Vietnam, and Indonesia. *The Singapore Economic Review*, 64(05), 1171–1200.
- Nguyen, T. T., Phan, T. D., & Tran, N. A. (2022). Impact of fiscal and monetary policy on inflation in Vietnam. *Investment Management and Financial Innovations*, 19(1), 201–209. [https://doi.org/10.21511/imfi.19\(1\).2022.15](https://doi.org/10.21511/imfi.19(1).2022.15)

- Okunlola, O. C., Sani, I. U., Ayetigbo, O. A., & Oyadeyi, O. O. (2024). Effect of government expenditure on real Economic growth in ECOWAS: Assessing the moderating role of corruption and conflict. *Humanities and Social Sciences Communications*, 11(1). <https://doi.org/10.1057/s41599-024-03285-x>
- Pfajfar, D., & Winkler, F. (2024). Households' preferences over inflation and monetary policy tradeoffs. *Finance and Economics Discussion Series*, 1. <https://doi.org/10.17016/feds.2024.036>
- Rolim, L. N. (2024). Inflation, unemployment, and inequality: Beyond the traditional Phillips Curve. *Review of Political Economy*, 1. <https://doi.org/10.1080/09538259.2024.2351827>
- Salim, N. J., Leng, N. K., Mat Yusof, M. H., Yahya, H., & Mamat, M. (2021). Determinants of inflation in selected Asian countries. *International Journal of Academic Research in Business and Social Sciences*, 11(11). <https://doi.org/10.6007/ijarbss/v11-i11/11278>
- Sanghvi, P. (2024). *The impact of interest rates on the economy and financial markets: A comprehensive analysis*. Financial Modeling Prep. <https://site.financialmodelingprep.com/education/financial-analysis/The-Impact-of-Interest-Rates-on-the-Economy-and-Financial-Markets-A-Comprehensive-Analysis>
- Sengupta, S., Chakraborty, T., & Singh, S. K. (2024). Forecasting CPI inflation under economic policy and Geopolitical uncertainties. *International Journal of Forecasting*. <https://doi.org/10.1016/j.ijforecast.2024.08.005>
- Shifaniya, A. J. F., Hettiarachchi, K. H. I. S., Weeraddana, M. N., & Parmila, N. S. (2022). The impact of Government expenditure on inflation: Evidence from Sri Lanka and India. *Sri Lankan Journal of Banking and Finance*, 5(1), 101. <https://www.researchgate.net/publication/366511367>
- Sosvilla-Rivero, S., Ramos-Herrera, M. C., & Rubio-Guerrero, J. J. (2025). Public expenditure and economic Growth: Further evidence for the European Union. *Economies*, 13(3), 60. <https://doi.org/10.3390/economies13030060>
- Uddin, M. A., Solaiman, M., Raju, V., & Alasan, I. (2020). A study on the factors of inflation in Malaysia. *International Journal of Social Science*, 1(4), 667–680. http://www.issjournal.com/Makaleler/1198116513_36.pdf
- Vallespin, M. R., Lázaro, E., Núñez, D., Sandoval, V., Tuazon, R., & Villareal, T. (2024). Philippine inflation trends and effects: A comparative analysis across four recent administrations and regional predictions. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.4715451>
- Yoldaş, E. (2024). Monetary policy and exchange rates during the global tightening. *FEDS Notes*. <https://doi.org/10.17016/2380-7172.3489>
- Yusof, N., Nin, L. F., Kamal, H. K. M., Taslim, J. R. A., & Zainoddin, A. I. (2021). Factors that influence the inflation Rate in Malaysia. *International Journal of Academic Research in Business and Social Sciences*, 11(9), 626–637. <https://www.researchgate.net/publication/355149422>