# MACROECONOMIC INTERACTIONS AND THE RESIDENTIAL PROPERTY MARKET: EVIDENCE FROM FIVE ASEAN COUNTRIES

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## ABSTRACT

*The property sector plays an important role in meeting basic human needs and supporting social welfare. Residential property not only serves as a place to live but also as a major driver of economic activity and a preferred investment instrument. This study aims to analyze the causal relationship between residential property price indices and macroeconomic variables in five ASEAN countries (Indonesia, Malaysia, Singapore, the Philippines, and Thailand) during the period from 2011Q1 to 2022Q4. The method used is panel data analysis. This study uses data on residential property price indices, inflation, Gross Domestic Product (GDP), domestic credit, and central bank interest rates. The regression model selected is the Fixed Effects Model (FEM). FEM estimation results show that inflation, GDP, and domestic credit have a positive and significant effect on residential property price indices, while central bank interest rates have a negative and significant effect. These findings imply that an increase in central bank interest rates causes a decline in residential property prices. Therefore, the government must maintain inflation stability to support consistent housing demand, consider the impact of economic growth on property price fluctuations, and monitor developments in domestic credit and interest rates to prevent the potential formation of property bubbles and financial crises.*

**Keywords :** *Residential Property Price Index, Inflation, GDP, Domestic Credit, Central Bank Rate*

## ABSTRAK

*Sektor properti memainkan peran penting dalam memenuhi kebutuhan dasar manusia dan mendukung kesejahteraan sosial. Properti hunian tidak hanya berfungsi sebagai tempat tinggal tetapi juga sebagai penggerak utama aktivitas ekonomi dan instrumen investasi yang disukai. Studi ini bertujuan untuk menganalisis hubungan kausal antara indeks harga properti hunian dan variabel makroekonomi di lima negara ASEAN (Indonesia, Malaysia, Singapura, Filipina, dan Thailand) selama periode 2011Q1 hingga 2022Q4. Metode yang digunakan adalah analisis data panel. Studi ini menggunakan data indeks harga properti hunian, inflasi, Produk Domestik Bruto (PDB), kredit domestik, dan suku bunga bank sentral. Model regresi yang dipilih adalah Model Efek Tetap (FEM). Hasil estimasi FEM menunjukkan bahwa inflasi, PDB, dan kredit domestik memiliki pengaruh positif dan signifikan terhadap indeks harga properti hunian, sedangkan suku bunga bank sentral memiliki pengaruh negatif dan signifikan. Temuan ini menyiratkan bahwa peningkatan suku bunga bank sentral menyebabkan penurunan harga properti hunian. Oleh karena itu, pemerintah harus menjaga stabilitas inflasi untuk mendukung permintaan perumahan yang konsisten, mempertimbangkan dampak pertumbuhan ekonomi terhadap fluktuasi harga properti, dan memantau perkembangan kredit domestik dan suku bunga untuk mencegah potensi terbentuknya gelem bung properti dan krisis keuangan.*

**Kata kunci :** *Indeks Harga Properti Perumahan, Inflasi, PDB, Kredit Domestik, Suku Bunga Bank Sentral*

**CONVERGENCE**

## INTRODUCTION

The property sector plays a pivotal role in fulfilling basic human needs and enhancing overall welfare. Social well-being is reflected in the quality of a decent standard of living. The increasing demand for adequate housing is evidenced by the rising property demand across countries. Given its continuous necessity for all individuals, the property sector has become a fundamental pillar of national economies (Anastasia & Hidayat, 2019). Furthermore, it serves as an attractive alternative investment, functioning as a multi-purpose asset and a long-term instrument that can also be utilized as collateral by both corporations and individuals. Developing countries have become the preferred destinations for investors from advanced economies, as they offer comparatively higher yields. The ASEAN-5 group (Indonesia, Malaysia, Singapore, Thailand, and the Philippines) represents a cluster of developing countries that continues to attract investors, particularly in the property sector (Andini & Falianty, 2022). The growing demand for housing in these five ASEAN countries has led to a consistent increase in residential property prices over time. The Residential Property Price Index (RPPI) is employed to measure fluctuations in residential property prices. Figure 1 presents the RPPI trends of the ASEAN-5 countries from the first quarter of 2011 to the fourth quarter of 2022.
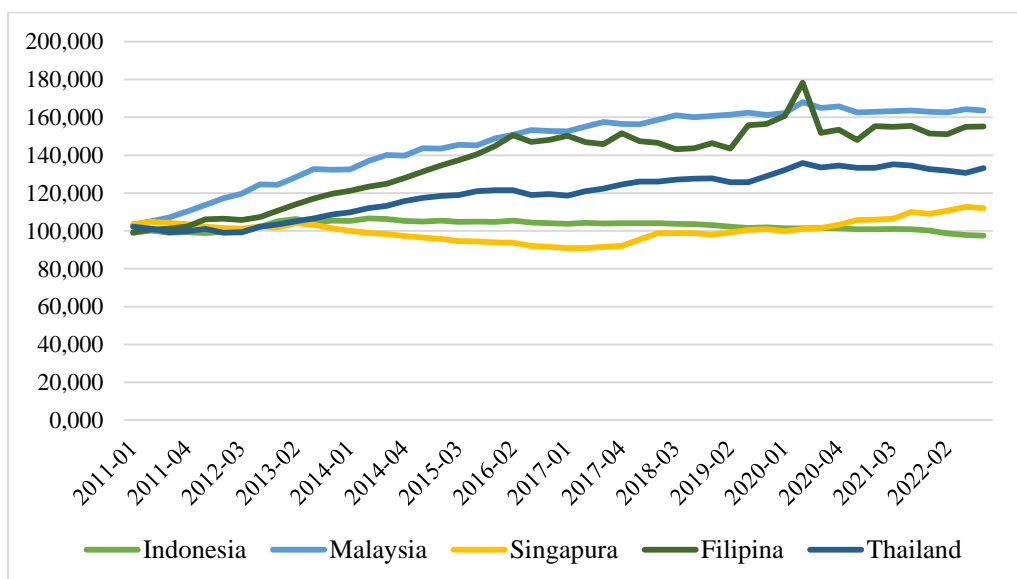


**Figure 1.** Trend of Residential Property Price Index (RPPI) of Five ASEAN COUNTRIES, 2011-2022
*Sources: Federal Reserve Economic Data*

The Residential Property Price Index (RPPI) based on Federal Reserve Economic Data (FRED) in three ASEAN countries Malaysia, the Philippines, and Thailand tends to increase annually, while the residential property price index in Indonesia and Singapore

shows fluctuations from year to year. Fluctuations in macroeconomic factors have a direct impact on housing prices. Neoclassical economic theory suggests that housing prices are determined by the interaction between housing demand and supply; therefore, any factors affecting demand and supply will, in turn, influence housing prices (Irandoust, 2019).

The relationship between macroeconomic conditions and housing price dynamics has been widely discussed in the empirical literature. Numerous studies underscore the positive correlation between economic growth, as reflected in GDP, and housing prices. Afsheen et al. (2021), using an Autoregressive Distributed Lag (ARDL) model, demonstrate that GDP growth significantly increases housing prices in Malaysia, suggesting that economic expansion stimulates demand in the housing market. This finding is further supported by Yildirim and Yagcibasi (2019), who identify a statistically significant relationship between GDP and housing prices in Turkey, indicating that stronger economic performance tends to be accompanied by higher housing demand and rising property values. In addition, Ryczkowski (2019) emphasizes the indirect role of GDP through its impact on purchasing power, arguing that higher economic output improves household income and financial capacity, thereby increasing the ability to invest in residential property and contributing to price appreciation.

Beyond economic growth, the availability of credit also plays a fundamental role in shaping housing market dynamics. Credit supply, particularly domestic credit, has been identified as a key driver of housing price movements. Akinci and Olmstead-Rumsey (2015) highlight that macroprudential policies regulating bank credit can influence housing price inflation, where tighter credit conditions tend to slow down price increases. Similarly, Akcay (2019) finds that the interaction between private credit supply and housing prices significantly affects economic stability in the European Union, as an expansion in credit availability often leads to rising property values. Evidence from ASEAN countries also supports this view; Ziaei and Bhatti (2017) reveal that domestic credit has a measurable impact on housing prices, although its effect may sometimes be moderated by broader global economic conditions. These findings suggest that credit availability not only stimulates housing demand but also shapes broader financial stability considerations.

Inflation is another key macroeconomic factor that influences housing market performance. Halim (2021) identifies a direct relationship between inflation and housing prices, explaining that rising inflation tends to increase construction costs, including materials and labor, which subsequently leads to higher housing prices. Karekezi et al. (2024) further emphasize that inflation has significant implications for housing affordability and pricing in both the short and long term. However, the impact of inflation is not always straightforward. In certain cases, especially during periods of high or unstable inflation, housing markets may experience stagnation as uncertainty discourages potential buyers from entering the market. For example, Zulkarnain et al. (2023) show that changes in inflation dynamics during the COVID-19 pandemic significantly influenced residential property prices in Malaysia alongside GDP and interest rate fluctuations.

The interaction among GDP, domestic credit, and inflation further illustrates the complexity of housing price determination. Olorunmade et al. (2019) explain that fluctuations in credit supply are closely linked to economic growth, which in turn affects inflation trends and ultimately influences housing prices, large capital inflows can trigger credit expansion, indirectly stimulating housing prices through increased economic activity and financial liquidit. More recently, Xiu (2024) notes that global shocks such as pandemics and economic crises can alter both credit cycles and GDP growth patterns, leading to significant fluctuations in housing prices. These findings collectively indicate that housing markets are highly sensitive to macroeconomic changes, and understanding the interplay between economic growth, credit availability, and inflation is essential for formulating effective policies to maintain housing market stability.

These contrasting empirical findings become increasingly important in the context of ASEAN, where the rapid growth of the residential property sector has raised concerns regarding housing affordability, financial stability, and the potential formation of speculative bubbles. The property market in this region has expanded significantly, driven by economic growth, urbanization, rising income levels, and increased access to credit. As the property sector is closely linked to macroeconomic conditions and the banking system, fluctuations in inflation, economic growth, credit expansion, and interest rates may strongly influence housing market dynamics. However, empirical evidence on the macroeconomic determinants of property prices in ASEAN remains limited and

fragmented, as most existing studies focus on single-country analyses and often produce inconsistent results.

Given these gaps in the literature, a clearer understanding of the direction and magnitude of the effects of key macroeconomic variables on residential property prices in a comparative ASEAN context is still lacking. Therefore, this study aims to re-examine the relationship between inflation, economic growth (GDP), domestic credit, and the central bank interest rate and their influence on residential property price movements across ASEAN countries. By adopting a cross-country panel approach, this study is expected to provide a more comprehensive perspective on housing market dynamics and offer relevant insights for the formulation of effective monetary and macroprudential policies.

## LITERATURE REVIEW

The Residential Property Price Index (RPPI) is an index number that measures changes in house prices, including apartments, single-family houses, and multi-story houses, over time (Zulkarnain, Nawi, and Aini, 2023). According to Bank Indonesia (2022), RPPI is defined as an economic indicator that provides information on developments in the residential property sector in the current quarter as well as in the subsequent quarter. The data processing procedure used to calculate RPPI involves a simple average method of house prices for each housing type, such as small/simple houses, medium-sized houses, and large houses. In addition to its methodological construction, the Residential Property Price Index (RPPI) serves several important functions in an economic context. First, RPPI acts as a macroeconomic indicator used to monitor a country's economic growth. Second, RPPI serves as a key reference in the formulation of economic policies and in setting inflation targets. Moreover, RPPI is used as a benchmark for estimating property values as an indicator of public welfare. Another important function of RPPI is its role as an indicator of financial stability, as it helps to measure risk in the property market. Given these multiple roles, identifying the macroeconomic factors influencing RPPI is essential for both policymakers and researchers.

One of the key macroeconomic determinants of residential property prices is inflation. Inflation occurs when price increases are not limited to one or two goods but spread to most other goods in the economy (Mankiw, 2018). Inflation has a significant impact on

property prices, particularly in the housing sector. When the inflation rate rises, it generally creates additional pressure on housing prices (Yunita, Aimon, and Putri, 2018). This occurs through several channels. First, inflation increases housing production costs, including the cost of building materials, labor, and other expenses related to housing development. Second, inflation can increase demand for property as a hedge asset against the decline in the purchasing power of money. This condition can further drive up housing prices due to high demand and cause the Residential Property Price Index (RPPI) to increase. Conversely, efforts to control inflation and reduce its rate can have a positive impact on housing prices, as lower inflation tends to reduce production costs and ease upward pressure on housing prices. A number of studies report that inflation exerts a positive and significant effect on property prices, as rising prices often increase construction costs and encourage investment in real assets as a hedge against inflation (Anwar et al., 2023; Mohan et al., 2019; Duja & Supriyanto, 2019; Fanama & Pratikno, 2019; Aslam et al., 2023; Kabine, 2022; Korkmaz, 2019; Kurniawan et al., 2023; Abasimi et al., 2023). In contrast, other studies find a negative relationship, suggesting that high inflation may reduce purchasing power and weaken housing demand (Sari & Tan, 2023; Putri, 2017; Jamaludin et al., 2017). These mixed findings indicate that the effect of inflation on residential property prices may vary depending on economic conditions, policy responses, and market structures, thus revealing a clear research gap.

Beyond inflation, overall economic performance, commonly proxied by Gross Domestic Product (GDP), also plays a crucial role in determining residential property prices. Gross Domestic Product (GDP) reflects the overall economic activity of a country, including the production of goods and services, income generated from these activities, and expenditures on consumption, investment, and government spending (Mankiw, 2018). GDP growth has a significant impact on the residential property price index because higher economic growth often indicates rising public income. With higher income levels, people tend to have greater financial capacity to purchase or invest in residential property, and this increased demand tends to push property prices upward. Many empirical studies support this argument by reporting a positive and significant effect of economic growth on property prices (Duja & Supriyanto, 2019; Fanama & Pratikno, 2019; Putra & Wasiaturrahma, 2021; Wang et al., 2020; Setianto, 2017; Zulkarnain et al., 2023; Anwar et al., 2023; Gunawan & Firdausy, 2017; Chandra & Defia, 2018). However, other studies

show a negative effect, suggesting that economic growth does not always translate into higher property prices, particularly in economies with unequal income distribution or housing market imbalances (Aslam et al., 2023; Bozdereli & Rahmatzada, 2022; Cunha & Lobão, 2021; Kabine, 2022; Kurniawan et al., 2023). This divergence highlights the need for further investigation into how economic growth interacts with housing markets across different contexts.

In addition to macroeconomic growth, financial conditions such as domestic credit availability also play an important role in shaping residential property prices. Domestic credit refers to the total amount of loan funds provided by domestic financial institutions, such as banks, to the private and public sectors within a country, including housing loans, business loans, and consumer loans (Mankiw, 2018). Domestic credit has a significant influence on property demand because a larger volume of credit makes it easier for people to obtain loans to purchase property, which can increase property demand and drive up residential property prices. Furthermore, the size of domestic credit reflects liquidity conditions in the financial market, which indirectly affects property prices. For example, when more funds are available for lending, this may trigger an increase in property purchase activities, ultimately pushing property prices higher. Several studies confirm a positive and significant effect of domestic credit on the Residential Property Price Index (RPPI) (Setianto, 2017; Aimon et al., 2018; Buhaerah, 2019). On the other hand, some studies report a negative and significant impact, suggesting that excessive credit expansion may lead to financial instability or tightening policies that ultimately suppress property price growth (Bozdereli & Rahmatzada, 2022; Anwar et al., 2023). These contrasting findings indicate that the influence of credit on property prices may depend on the stage of financial development and regulatory conditions.

Closely related to credit conditions is the central bank interest rate, which is set by a country's monetary authority as a benchmark for interest rates used in interbank lending and commercial bank lending. Changes in the central bank interest rate affect property demand through borrowing costs and investment returns. A decline in interest rates has a significant impact on property demand for investment purposes because it increases the net return on property investment. In addition, interest rates affect housing demand for consumption purposes, as they determine the size of monthly mortgage payments that

**CONVERGENCE : THE JOURNAL OF ECONOMIC DEVELOPMENT**
Vol.7, No.2, pp.138-158, December 2025.

e-ISSN 2721-625X
ISSN 2721-6330

must be paid by homeowners. As interest rates decrease, monthly installments become more affordable for households, which in turn encourages an increase in demand for owner-occupied housing (Ullyana, Daryanto, and Saptono, 2016). Conversely, an increase in interest rates reduces the net return on property investment because borrowing costs become higher, thereby reducing the attractiveness of property as an investment and decreasing housing demand. Some studies report a positive and significant relationship between interest rates and property prices (Kabine, 2022; Zulkarnain et al., 2023; Aimon et al., 2018; Sari & Tan, 2023; Chandra & Defia, 2018), while others find a negative effect, indicating that rising interest rates tend to reduce housing demand and slow price growth (Putra & Wasiaturrahma, 2021; Khan & Khan, 2018; Wang et al., 2020; Aslam et al., 2023; Budi, 2021; Anwar et al., 2023; Gunawan & Firdausy, 2017; Kurniawan et al., 2023). This inconsistency suggests that the relationship between interest rates and property prices may vary depending on monetary policy transmission and housing market dynamics.

**RESEARCH METHOD**

This study is a quantitative study using secondary data obtained from official websites such as the World Bank, IMF, BIS, FRED, CEIC, and Bank Indonesia. The population and sample in this study included five ASEAN countries (Indonesia, Malaysia, Singapore, the Philippines, and Thailand). This study used a panel data regression model, and the time period in this study was from 2011 Q1 to 2022 Q4 with 240 data points. The analysis process involves several important stages to determine the method that suits the characteristics of the available data. First, the stage of selecting a panel data estimation model, where methods such as common effect, fixed effect, or random effect are considered (Gujarati & Porter, 2015). Determining the appropriate method is usually done through a series of model suitability tests such as the Chow Test and the Hausman Test. Next, hypothesis testing is carried out, which includes the t-test, f-test, and R-Squared test (Gujarati & Porter, 2015). From the research by Cunha and Lobão (2021), the modified research model consists of several variables:

$$LnRPPI_{it} = \beta_0 + \beta_1 INF_{it} + \beta_2 LnGDP_{it} + \beta_3 CBR_{it} + \beta_4 LnDC_{it} + \varepsilon_{it}$$

where i denotes the cross-sectional unit and t denotes the time period. RPPI is residential property price index (2010=100), INF denotes inflation (%), GDP represents gross domestic product (million USD), CBR denotes the central bank policy interest rate (%), and DC is domestic credit (USD), $\beta_0$ is the intercept, $\beta_1$-$\beta_4$ are the parameters to be estimated, ln is logaritma natural, and $\varepsilon$ is the error term capturing unobserved factors affecting residential property prices.

## RESULTS AND DISCUSSION

### Results

There are three model estimates in the panel data regression model, namely the Common Effect Model (CEM), Random Effect Model (REM), and Fixed Effect Model (FEM) using the Chow Test and Hausman Test. The following are the regression results from the three panel data model estimates.

**Table 1.** Regression Results

| Variable | Method | | |
|---|---|---|---|
| | Fixed Effect | Random Effect | Common Effect |
| Inflation | 2.937507** | -2.183415* | -2.183415* |
| | 1.171648 | 1.157829 | 2.752087 |
| GDP | 0.319655*** | -0.105308*** | -0.105308** |
| | 0.071843 | 0.018627 | 0.044276 |
| Domestic credit | 0.013273*** | -0.000788* | -0.000788* |
| | 0.004429 | 0.001566 | 0.003721 |
| CBR | -5.756229** | 2.521100* | 2.521100* |
| | 2.535160 | 2.180712 | 5.183417 |
| Constanta | -270.8877 | 2649.789 | 2649.789 |
| | 196.2699 | 74.05797 | 176.0312 |
| Prob(F-statistic) | 0.000000 | 0.006057 | 0.006057 |
| observation | 240 | 240 | 240 |
| R-squared | 0.836332 | 0.059291 | 0.059291 |

Note: Significant level $p > |t|$:***<1%(0.01);** < 5% (0.05); *<10% (0.10)

*Sources: data processed by author, 2024*

Table 1 presents panel regression results under fixed effects, random effects, and pooled OLS specifications. The table reports coefficient estimates, and standard errors. Therefore, tests were conducted on the three estimated models to determine the most appropriate model. The results of the three model estimations are presented in Table 2.

**Table 2.** Panel Data Model Selection Tests

| Variable | Test Stat. | d.f | P-value | Model selected |
|---|---|---|---|---|
| Chow Test | Cross section F=274.177712 | (4..231) | 0.0000 | Fixed Effect Model |
|  | Cross section Chi –square =419.710526 | 4 | 0.0000 |  |
| Hausman Test | Cross-section random = 1096.719846 | 4 | 0.0000 | Fixed Effect Model |

*Sources: data processed by author, 2024*

Table 2 shows the results of testing the selection of panel data estimation models using the Chow test and Hausman test to determine the most appropriate model specification in the RPPI analysis. Based on the Chow test results, a probability value of 0.0000 was obtained, which is smaller than the 5 percent significance level. Thus, the null hypothesis stating that the Common Effect Model (CEM) is the appropriate model is rejected, and the Fixed Effect Model (FEM) is selected as the more appropriate model specification. This finding indicates the presence of significant unobserved heterogeneity between cross-section units, which needs to be controlled through fixed effects.

Furthermore, based on the Hausman test, a probability value of 0.0000 was obtained, which is smaller than 0.05. Therefore, the null hypothesis stating that the Random Effect Model (REM) is more efficient cannot be accepted, and the Fixed Effect Model (FEM) is confirmed as a consistent and unbiased model. Therefore, based on these two tests, the Fixed Effect Model (FEM) was chosen as the main estimation model in this study. The selection of FEM indicates that the differences in specific characteristics between regions/times are systematic and correlated with the explanatory variables, so that the fixed effects approach is more appropriate to avoid estimation bias due to unobserved omitted variables. Subsequently, classical assumption tests were conducted to ensure that the results obtained in this study met the necessary validity requirements and could be interpreted correctly. The results of the classical assumption tests can be seen in Table 3.

**Table 2.** Results of the Classical Assumption Test

| Classical Assumptions Test | Probability | Description |
|---|---|---|
| Normalitas | probability value 0,064054 > 0.05 | Normally distributed data |
| Heteroskedatisitas | probability value 0.6501 > 0.05 | Free from heteroscedasticity |
| Multikolinearitas | probability value 1.000000 < 10 | Free from multicollinearity |

*Sources: data processed by author, 2024*

Based on the results of the classical assumption test in Table 2, the regression model used in this study has met the criteria for statistical estimation feasibility. *First*, the normality test results show a probability value of 0.064054, which is greater than the significance level of 5 percent ($\alpha = 0.05$). This indicates that the model residuals are normally distributed. Thus, the normality assumption is satisfied, so that the regression parameter estimates can be considered unbiased and the statistical inferences made through the t-test and F-test are valid. *Second*, the heteroscedasticity test results show a probability value of 0.6501, which is also greater than 0.05. This finding shows that there are no signs of heteroscedasticity in the model, or in other words, the residual variance is constant (homoscedastic). This condition is important because a violation of the homoscedasticity assumption can cause variance estimates to be inefficient and produce biased standard errors. Therefore, the absence of heteroscedasticity strengthens the reliability of the regression estimation results. *Third*, the multicollinearity test results show a value of 1.000000, which is below the general threshold (VIF < 10). This indicates that there is no high correlation between the independent variables in the model. The absence of multicollinearity ensures that each independent variable is able to explain the variation in the dependent variable partially without distortion due to strong linear relationships with other explanatory variables. The results of the classical assumption test show that the regression model used has met the assumptions of normality, homoscedasticity, and no multicollinearity. With these three assumptions met, the model can be declared suitable for use in further analysis and the regression coefficients can be interpreted with an adequate level of confidence.

**Hypothesis test Result**

Based on the estimation results of the Fixed Effect Model (FEM), the coefficient of determination ($R^2$) is 0.836332, indicating that approximately 83.63 percent of the variation in the Residential Property Price Index (RPPI) can be explained jointly by inflation, GDP, domestic credit, and the central bank rate. The remaining 16.37 percent is attributable to other factors not included in the model. This relatively high explanatory power suggests that the selected macroeconomic variables play a substantial role in determining residential property price dynamics. Furthermore, the Prob F-statistic value of 0.000000, which is below the 5 percent significance level, confirms that the independent

**CONVERGENCE : THE JOURNAL OF ECONOMIC DEVELOPMENT**
Vol.7, No.2, pp.138-158, December 2025.

e-ISSN 2721-625X
ISSN 2721-6330

variables collectively exert a statistically significant effect on RPPI. Therefore, the estimated model shows simultaneous significance and has sufficient empirical robustness in explaining the dynamics and variations in residential property prices.

The partial estimation results (t-test) further reveal the individual contribution of each explanatory variable. Inflation exhibits a probability value of 0.0129, which is below 0.05, and a positive coefficient of 2.937507. This finding indicates that inflation has a positive and statistically significant effect on RPPI. Specifically, 1 percent increase in inflation is associated with an approximate 2.94 percent increase in residential property prices, suggesting that housing assets may serve as a hedge against rising price levels. Similarly, GDP demonstrates a probability value of 0.0000 and a positive coefficient of 0.319655, confirming a positive and significant relationship with RPPI. This implies that 1 percent increase in GDP leads to an estimated 0.32 percent increase in residential property prices. The result underscores the role of economic growth in strengthening household income and purchasing power, thereby stimulating demand in the housing market.

Then, Domestic credit also shows a positive and statistically significant effect on RPPI, with a probability value of 0.0030 and a coefficient of 0.013273. This suggests that 1 percent expansion in domestic credit increases RPPI by approximately 0.013 percent. Although the magnitude of the coefficient is relatively small, the result highlights the importance of financial deepening and credit availability in supporting housing market activity.

In contrast, the central bank rate (CBR) exhibits a statistically significant negative effect on RPPI, with a probability value of 0.0241 and a coefficient of –5.756229. This indicates that 1 percent increase in the policy interest rate reduces residential property prices by approximately 5.76 percent. The negative relationship reflects the contractionary impact of higher borrowing costs on housing affordability and investment demand, thereby exerting downward pressure on property prices. The empirical findings suggest that macroeconomic stability and financial conditions play a critical role in shaping residential property price movements. While inflation, economic growth, and credit expansion contribute positively to RPPI dynamics, tighter monetary policy through higher interest rates tends to suppress housing price growth.

## Discussion

The results of this study indicate that inflation has a positive and significant effect on the residential property price index, implying that an increase in inflation is associated with rising residential property prices. Inflation refers to a general increase in the overall price level within an economy and typically arises from an imbalance between demand and supply. When aggregate demand increases, prices tend to rise, and this mechanism also applies to the property market. In the context of residential property, higher inflation is often accompanied by increased demand for real assets, as property is commonly viewed as a hedge against declining purchasing power. As a result, stronger demand for housing contributes to upward pressure on property prices.

Moreover, inflation raises the prices of goods and services more broadly, including construction materials, labor costs, and other inputs required for housing development. This situation increases production costs for developers, forcing them to adjust selling prices to maintain profitability. Consequently, inflation affects residential property prices through both the demand side, by encouraging investment in real assets, and the supply side, by increasing construction costs. These findings are consistent with previous studies conducted by Fanama and Pratikto (2019), Bozdereli and Rahmatzada (2022), Wijayanti and Yudiantoro (2023), Aslam et al. (2023), and Warlan, Firdaus, and Mardana (2020), which demonstrate that inflation has a positive and significant effect on the residential property price index.

Beyond inflation, broader macroeconomic conditions, particularly economic growth, also play a crucial role in shaping housing market dynamics. The results of this study show that GDP has a positive and significant effect on the residential property price index, indicating that an increase in GDP tends to be followed by rising residential property prices. GDP serves as a key indicator of economic performance, reflecting total income earned by individuals as well as total expenditure on goods and services within an economy. When GDP grows, it signals stronger economic activity driven by higher levels of production, investment, and consumption. This environment creates favorable conditions for the expansion of the property sector. In particular, economic growth is generally associated with rising household incomes, which in turn enhance purchasing power. As income levels increase, households become more capable of purchasing homes or investing in property

assets. At the same time, stable economic growth tends to strengthen investor confidence and encourage business expansion, including investment in new residential development projects. This process increases both housing demand and supply, but in many cases, demand grows more rapidly, placing upward pressure on property prices and increasing the investment value of real estate. These findings are in line with studies by Duja and Supriyanto (2019), Wang et al. (2020), Fanama and Pratikto (2019), Bintang and Agustina (2021), Setianto (2017), and Zulkarnain, Nawi, and Aini (2023), which consistently report a positive relationship between GDP and residential property prices.

In addition to income growth, the availability of financial resources also plays a fundamental role in driving property demand. This is reflected in the results of this study, which show that domestic credit has a positive and significant effect on the residential property price index. This implies that an expansion in domestic credit contributes to rising residential property prices. From a theoretical perspective, greater access to credit improves financial accessibility for households and firms, enabling them to purchase homes or invest in real estate more easily. As credit becomes more widely available, a larger portion of the population gains the capacity to enter the property market, thereby increasing housing demand.

Furthermore, the growth of domestic credit often reflects confidence in the overall economic environment and a well-functioning financial system. When banks expand lending, particularly in the housing sector, it stimulates property transactions and encourages investment in residential development. Increased access to financing raises household purchasing power, allowing more individuals to afford mortgage payments and acquire property. This creates a more active property market, characterized by rising transaction volumes and stronger demand, which in turn supports increases in residential property prices. As demand intensifies, the value of existing housing supply may also appreciate over time. These findings are consistent with the results of studies conducted by Setianto (2017), Aimon et al. (2018), Buhaerah (2019), Sari and Sangadah (2024), and Amaliah (2025), which confirm that domestic credit has a positive and significant influence on residential property prices. However, while inflation, economic growth, and credit expansion tend to stimulate demand and push property prices upward, monetary policy plays a balancing role in controlling excessive price increases. The results of this

study indicate that the central bank rate (CBR) has a negative and significant effect on the residential property price index, suggesting that higher interest rates are associated with declining property prices. The central bank interest rate serves as a key policy instrument that influences overall interest rates in financial markets. When the central bank raises its policy rate, borrowing costs for banks and financial institutions increase, and this effect is transmitted to consumers and businesses through higher lending rates, including mortgage interest rates.

Higher borrowing costs reduce households' ability to finance home purchases and discourage investment in property. At the same time, higher interest rates increase the attractiveness of alternative financial instruments, such as deposits and bonds, which offer more competitive returns. As a result, some investors may shift their funds away from property toward financial assets. In addition to these financial effects, rising interest rates also have psychological impacts on both consumers and businesses. When interest rates increase, economic agents tend to become more cautious, reduce spending, and postpone investment decisions. This decline in purchasing activity weakens demand in the housing market, which can ultimately lead to slower price growth or even a decline in property values. These findings are consistent with studies by Aslam et al. (2023), Anastasia and Hidayat (2019), Ullyana, Daryanto, and Saptono (2016), and Williams and Ge (2017), which show that higher central bank interest rates have a negative and significant effect on residential property prices.

## CONCLUSION

The empirical findings of this study provide strong evidence that macroeconomic factors play a crucial role in shaping the dynamics of residential property prices in ASEAN countries. Inflation, economic growth (GDP), and domestic credit are found to have a positive and statistically significant effect on the residential property price index, indicating that increases in price levels, income, and credit availability tend to stimulate housing demand and contribute to rising property values. In contrast, the central bank rate exhibits a negative and significant relationship with residential property prices, suggesting that higher interest rates, through increased borrowing costs and reduced purchasing power, can dampen demand in the housing market and exert downward pressure on prices. Overall, these findings highlight the importance of macroeconomic stability, credit

conditions, and monetary policy transmission in influencing property market movements. The results underscore that the residential property sector is closely interconnected with broader economic performance and financial system dynamics, making it highly responsive to changes in inflation, income growth, credit expansion, and interest rate policies.

## LIMITATION AND RECOMMENDATION

This study has several limitations that should be taken into consideration. First, it only incorporates four macroeconomic variables namely inflation, GDP, domestic credit, and the central bank interest rate, thus not accounting for other potentially important determinants such as urbanization, population growth, property tax policies, and specific macroprudential instruments. Second, the study employs a static panel model, which may not fully capture the short-term and long-term dynamics of property price movements, including the potential formation of housing price cycles or bubbles. Third, the scope of the analysis is limited to five ASEAN countries over the period 2011–2022, which may restrict the generalizability of the findings across the broader region.

Based on these limitations, future research is recommended to adopt more dynamic econometric approaches and incorporate additional relevant variables in order to provide a more comprehensive understanding of the factors influencing residential property prices. From a policy perspective, the findings of this study suggest that monetary authorities, financial regulators, and governments need to strengthen coordination in managing the housing market. Central banks should maintain interest rate stability as a key instrument for controlling property price growth, as changes in interest rates directly affect borrowing costs, purchasing power, and housing demand. In addition, the positive influence of domestic credit on property prices highlights the importance of strengthening macroprudential policies, such as regulating Loan to Value (LTV) ratios and closely supervising housing credit expansion, to prevent excessive lending and reduce the risk of property price bubbles that may threaten financial system stability. Furthermore, as economic growth and improved access to credit may lead to rising housing prices, governments are encouraged to support housing affordability through subsidy programs, improved financing access, and increased housing supply, particularly for middle- and lower-income households.

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