



www.openjurnal.unmuhpnk.ac.id/index.php/jm_motivasi



Macroeconomic Factors as Determinants of Property Values in Indonesia

Rosyidatul Munawwaroh¹, Feri Dwi Riyanto², Irmayanti Hasan³, Rohmatulloh Salis⁴

Faculty of Economics^{1,2,3,4}, Maulana Malik Ibrahim State Islamic University

ARTICLE INFO

Keywords:

property value, regional consumption rate, GDP, money supply, inflation, macroeconomics

ABSTRACT

This study examines the effects of Regional Consumption Level (RCL), Gross Regional Domestic Product (GRDP), and Money Supply (MS) on property values in Indonesia, with inflation as a moderating variable. Using panel data from 33 provinces during 2020–2025, the study employs panel regression and Moderated Regression Analysis (MRA). The results indicate that RCL and MS have a positive and significant effect on property values, while GRDP has no significant effect. Furthermore, inflation is unable to moderate the relationships between RCL, GRDP, and MS and property values. These findings suggest that property values in Indonesia are primarily influenced by macroeconomic fundamentals rather than inflation dynamics.

ABSTRAK

Penelitian ini bertujuan menganalisis pengaruh Tingkat Konsumsi Daerah (TKD), Produk Domestik Regional Bruto (PDRB), dan Jumlah Uang Beredar (JUB) terhadap nilai properti di Indonesia dengan inflasi sebagai variabel moderasi. Penelitian menggunakan data panel 33 provinsi di Indonesia periode 2020–2025 yang dianalisis menggunakan regresi data panel dan Moderated Regression Analysis (MRA). Hasil penelitian menunjukkan bahwa TKD dan JUB berpengaruh positif signifikan terhadap nilai properti, sedangkan PDRB tidak berpengaruh signifikan. Selain itu, inflasi tidak mampu memoderasi pengaruh TKD, PDRB, dan JUB terhadap nilai properti. Temuan ini menunjukkan bahwa nilai properti di Indonesia lebih dipengaruhi oleh faktor fundamental makroekonomi dibandingkan dinamika inflasi.

Introduction

The property sector is among the strategic domains of the economic sector, tightly connected to macroeconomic dynamics, the financial sector, and consumer spending. Movements in property prices not only reflect housing market conditions but also serve as a key indicator for assessing a region's economic stability. In developing countries such as Indonesia, this sector serves a significant role in driving economic growth, capital formation, and improving public welfare (Syahda & Retnasih, 2025; Szentesi et al., 2024).

*Corresponding author.

E-mail addresses: 220501110123@student.uin-malang.ac.id (Rosyidatul Munawwaroh)

DOI: 10.29406/jmm.v22i1.9158

However, the dynamics of property prices in Indonesia do not always follow a stable pattern and tend to be influenced by various complex macroeconomic factors. Empirically, property price trends in Indonesia are heavily influenced by heterogeneous regional economic conditions. Differences in development levels across regions, urbanization, and regional economic capacity lead to significant variations in property demand and prices. The phenomenon of a slowdown in the increase of the Residential Property Price Index (IHPR) despite continued national economic growth indicates an imbalance between real economic activity and the property market (Prakoso, 2025). This suggests that macroeconomic factors such as consumption, liquidity, and economic output are not yet fully reflected directly in property price dynamics. Previous research shows that elements including Gross Domestic Product (GDP), inflationary pressure, borrowing rates, currency exchange rates influence outcomes in different ways toward property prices among various countries and time frames (Kurniawan et al., 2023). These findings suggest that the relationship between macroeconomic variables along with property prices is not universal but highly contextual.

According to Keynesian macroeconomic theory, consumption is a key component of aggregate demand, determining the level of economic activity. Increased income will drive public consumption, which in turn increases demand for various goods and services, including property. Therefore, regional consumption levels can be used as an indicator of public purchasing power, potentially influencing property values. Research by Isyanto et al. (2023), Son & Park (2020), and Yuan (2023) shows that increased consumption contributes to increased demand and property prices. However, high inflation can reduce real purchasing power, making this relationship inconsistent (Tremblay, 2025).

Besides consumption, Gross Regional Domestic Product (GRDP) is an important indicator reflecting a region's economic capacity. Theoretically, an increase in GRDP indicates increased public income and economic activity, which ultimately drives property demand. Findings by Abasimi et al. (2025), Khoirudin et al. (2024), Rahman & Ridzuan (2020), and Zulkifli et al. (2022) indicate that economic growth has a positive effect on property prices. However, Kurniawan et al. (2023) found that GDP negatively impacts residential property prices in Indonesia, while Pratami et al. (2024) showed that the effect of economic growth on property prices was insignificant. These differences in results indicate that the relationship between economic growth and property values still requires further examination.

Another macroeconomic variable that has the potential to influence property values is the money supply (M2). From a monetary perspective, an increase in the money supply will increase economic liquidity, thereby boosting consumption and investment, including property investment. Research by Gao et al. (2022), Khoirudin et al. (2024), and Zulkifli et al. (2022) demonstrates that the money supply has a positive effect on property prices. However, increased liquidity that is not matched by output growth can lead to inflationary pressures and reduce the effectiveness of the money supply's influence on the property market (Rahmadi & Aimon, 2022).

In this study, inflation is an important variable to consider. Inflation not only affects development costs and people's purchasing power but also has the potential to alter the relationship between macroeconomic variables and property values. Research by Chen (2024), Ehigiamusoe et al. (2021), and Lewandowska et al. (2023) shows that inflation can either strengthen or weaken the influence of economic growth on the financial sector and real assets. On the other hand, research by Handayani & Nuswandari (2025) and Rahman & Ridzuan (2020) found that inflation does not always have a significant effect on property prices. The inconsistency of these research results indicates that the role of inflation in the property market remains an issue that lacks strong empirical conclusions.

Previous research has focused primarily on the direct influence of macroeconomic variables on property prices or values without examining the interaction mechanisms between these variables. The results of previous studies on the influence of consumption, GRDP, and the money supply on property values have been inconsistent. Consequently, research specifically examining inflation as a moderating variable in the relationship between regional consumption levels, GRDP, and the money supply on property values in Indonesia remains very limited. Therefore, this study offers a novelty by examining the role of inflation as a moderating variable in the relationship between macroeconomic factors and property values using panel data from 33 provinces in Indonesia.

The 2020–2025 research period was chosen based on the consideration that it reflects the phase of economic contraction due to the COVID-19 pandemic, the national economic recovery process, and the post-pandemic macroeconomic stabilization period. Therefore, this period is able to illustrate the dynamics of changes in consumption, economic growth, monetary liquidity, and inflation that are relevant to property value developments. Meanwhile, the use of 33 provinces as the unit of analysis was chosen to capture the heterogeneity of Indonesia's regional economic characteristics, which have the potential to produce different responses to changes in macroeconomic indicators.

Based on the above description, this study aims to analyze the influence of regional consumption levels, GRDP, and the money supply on property values in Indonesia, and to test whether inflation is able to moderate the relationship between these three macroeconomic variables and property values. The results of this study are expected to provide theoretical contributions to the development of literature on the determinants of property values based on a regional macroeconomic approach. Practically, this study can serve as a reference for investors in identifying relevant economic indicators for property investment decisions, for property developers in developing business strategies that are adaptive to changing macroeconomic conditions, and for the government and monetary authorities in formulating policies that support property market stability and sustainable economic growth.

Literatur Review

Consumption Function Theory

Keynesian's consumption function theory explains that household consumption is strongly influenced by income levels. When income increases, consumption also increases, although the increase is not as large as the increase in income. This concept is known as the Marginal Propensity to Consume (MPC), which refers to the tendency of people to spend a portion of their additional income on consumption (Keynes, 2018). In the context of regional economics, regional consumption levels reflect the amount of household spending on goods and services within a region and reflect the purchasing power and level of community welfare (Istifadah & Andriani, 2023). Therefore, increased regional consumption can increase demand for property, potentially increasing property values. Based on Keynes's Consumption Function Theory, increased consumption reflects increased purchasing power. Higher purchasing power will increase demand for housing and property as investment instruments. Research by Isyanto et al. (2023), Son & Park (2020), Stanković (2022), and Yuan (2023) shows that consumption has a positive relationship with property market development.

Solow Growth Model

The neoclassical economic growth theory developed by Robert Solow explains that economic growth is determined by the accumulation of capital, labor, and technological progress. Economic output results from a combination of these three factors, so long-term economic growth is highly dependent on increased productivity and technological development (Ramanayake, 2019). In regional economic analysis, Gross Regional Domestic Product (GRDP) is used as an indicator of a region's economic activity. A higher GRDP indicates greater production, distribution, and consumption activity in the area (Muzzakar et al., 2023). High GRDP growth reflects increased public income and expansion of business activity, which ultimately increases demand for residential and commercial property. Based on the Solow Theory of Economic Growth, increased economic output will increase public income and investment activity. This condition drives increased demand for property, potentially increasing property values. Findings by Abasimi et al. (2025), Khoirudin et al. (2024), Rahman and Ridzuan (2020), and Zulkifli et al. (2022) support a positive relationship between economic growth and property values.

The Quantity Theory of Money

The Quantity Theory of Money, introduced by Irving Fisher, explains that the money supply is closely related to the price level and economic activity. Fisher stated that an increase in the money supply will increase economic liquidity, thereby encouraging consumption and investment activity (Hasbi et al., 2024). Over time, this theory has been used not only to explain inflation but also to explain asset price dynamics. Wang (2025) explains that growth in the money supply, particularly M2, has a long-term relationship with house prices due to credit expansion supported by property assets. Therefore, an increase in the money supply can increase demand for property and drive up property values. The Quantity Theory of Money explains that increasing the money supply will increase liquidity and access to financing in the economy. This condition encourages consumption and investment, including investment in the property sector. Research by Gao et al. (2022), Khoirudin et al. (2024), and Zulkifli et al. (2022) shows that the money supply is one factor influencing property values.

Property Value Theory

According to Irving Fisher, property is a real asset that has the ability to maintain purchasing power against inflation. Property value is defined as the market price of land and buildings, reflecting the economic benefits that can be obtained by the owner (Rubens et al., 1989). From an investment perspective, property is often considered a hedging asset against inflation because its value tends to increase in the long term with economic growth and general price increases.

Keynesian Inflation Theory

According to the Keynesian perspective, inflation is an indicator of economic activity that occurs when aggregate demand exceeds the economy's production capacity. Inflation reflects general and sustained changes in the price level of goods and services in an economy (Meiriza et al., 2024). In the property market, inflation can impact people's purchasing power, development costs, and investment returns. Therefore, inflation not only directly impacts property values but also has the potential to strengthen or weaken the influence of regional consumption levels, GRDP, and the money supply on property values. Inflation is a general and sustained increase in the prices of goods and services. Theoretically, inflation can affect people's purchasing power, property development costs, and investment returns. Therefore, inflation not only functions as an independent variable but can also act as a moderating variable, strengthening or weakening the influence of regional consumption levels, GRDP, and the money supply on property values. Findings by Chen (2024), Ehigiamusoe et al. (2021), Lewandowska et al. (2023), and Tremblay (2025) indicate that inflation plays a significant role in explaining the relationship between macroeconomic variables and asset prices.

Research Methods

This study employs a quantitative approach using panel data regression to analyze the causal relationship between macroeconomic variables and property values in Indonesia, as well to test the contribution of inflationary pressure as a moderator determinant in that relationship. The current strategy is grounded in the theoretical framework of macroeconomics and real estate finance, which posits that property prices are influenced by aggregate consumption dynamics, monetary conditions, and regional economic output. The Central Statistics Agency and Bank Indonesia's official publications provided secondary sources utilized in this research (Rosini, 2023). All of Indonesia's provinces make up the study's population, and selected sample was determined using purposive sampling in accordance also particular criteria. Thus, based on certain criteria, 33 provinces were selected for a 6-year study period, namely 2020–2025, yielding a total of 198 observations. Information gathering approach applied in the research is the documentary method, which involves searching for and documenting secondary sources derived from institutional official publications via the websites of the Central Statistics Agency (BPS) and Bank Indonesia. Furthermore, analytical methods employed consist of panel data regression estimation with classical assumption tests, which consist of analyses of normality, multicollinearity, heteroscedasticity, and serial correlation. Meanwhile, hypothesis examination was carried out by Moderated Regression Analysis (MRA) using support the Eviews 12 program through several stages, namely the F-test, t-test, and coefficient of decisiveness.

Result and Discussion

Result

Descriptive Analysis

This explanatory examination conducted for describe the data employed in the study, comprising the quantity of observations, mean, standard deviation, smallest value, and greatest value. The study's independent variables include regional consumption levels, GRDP, and the money supply. Meanwhile, the dependent variable used is Property Value, with inflation as a moderating variable.

Table 1. Results of Descriptive Analysis

	Y	X1	X2	X3	Z
Mean	4.110604	14.12693	1.195039	12.56225	1.667954
Median	4.161068	14.10457	1.254190	12.38110	1.622026
Maximum	4.480853	14.90151	3.478158	15.18317	4.605170
Minimum	3.306154	13.58529	-1.514128	10.63897	0.439798
Std. Dev.	0.237961	0.225585	0.712313	1.156548	0.691153
Skewness	-1.554813	0.689439	-0.460696	0.481885	0.901051
Kurtosis	5.508569	3.930416	5.668095	2.441295	4.989481
Jarque-Bera	131.6922	22.82760	65.73349	10.23827	59.44628
Probability	0.000000	0.000011	0.000000	0.005981	0.000000
Sum	813.8995	2,797.131	236.6177	2,487.326	330.2549
Sum of Squares	11.15522	10.02505	99.95576	263.5078	94.10542
Deviation					
Observations	198	198	198	198	198

Source: Data processed by the researcher, Eviews12 (2026).

Model Selection Test

Chow Test

Select from fixed effects type as well as common effects, how test is used (Widarjono, 2017).

Table 2. Results of the Chow test

Effects Test	Statistic	d.f.	Prob.
Cross-section F	70.087268	(32,162)	0.0000
Cross-section Chi-square	534.129273	32	0.0000

Source: Data processed by the researcher, Eviews12 (2026).

Considering the results, H0 fails to hold because the cross-section F prob. magnitude in Table 3's Chow test is less than 0.05, specifically $0.0000 < 0.05$. This suggests fixed-effects type is superior to pooled effects framework, therefore the Hausman test is then able to be conducted next.

Hausman Test

The Hausman test is conducted to determine the better model choice between *the Random Effects Model* or *the Fixed Effects Model* (Widarjono, 2017).

Table 3. Results of the Hausman Test

Test Summary	Chi-Square Statistic	Chi-Sq. d.f.	Prob.
Cross-sectional random	40.117409	3	0.0000

Source: Data processed by the researcher, Eviews12 (2026).

Outcomes from the Hausman test as reflected across Table 4, H0 is rejected since the p-value for cross-section random type is less than 0.05, specifically $0.0000 < 0.05$. The fixed-effects framework proves to be chosen as primary estimation technique since this shows that it works better than random effects approach.

Fixed-Effects Model

The Fixed Effect Model (FEM), determined be in amajority appropriate technique applied analysis based on the selection estimation method in the preceding section. Consequently, conclusions of a panel-method regression are shown in the following table. model using this fixed-effect method:

Table 4. Results of the Fixed Effects Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.323722	0.801834	-7.886576	0.0000
X1	0.912261	0.072781	12.53436	0.0000
X2	-0.002293	0.009122	-0.251371	0.8018
X3	-0.195059	0.037498	-5.201792	0.0000
Effects Specification				
Cross-section fixed (dummy variables)				
Root MSE		0.060523	R-squared	0.934983
Mean dependent var		4.110604	Adjusted R-squared	0.920937
S.D. dependent var		0.237961	S.E. of regression	0.066910
Akaike info criterion		-2.407959	Sum squared resid	0.725274
Schwarz criterion		-1.810092	Log likelihood	274.3879
Hannan-Quinn criter.				
Durbin-Watson stat		-2.165962	F-statistic	66.56209

Source: Data processed by the researcher, Eviews12 (2026).

Classical Assumption Tests

Normality Test

Objective of an normalcy analysis to ascertain if research's data is regularly distributed, thereby indicating whether regression model residuals are normally distributed or not.

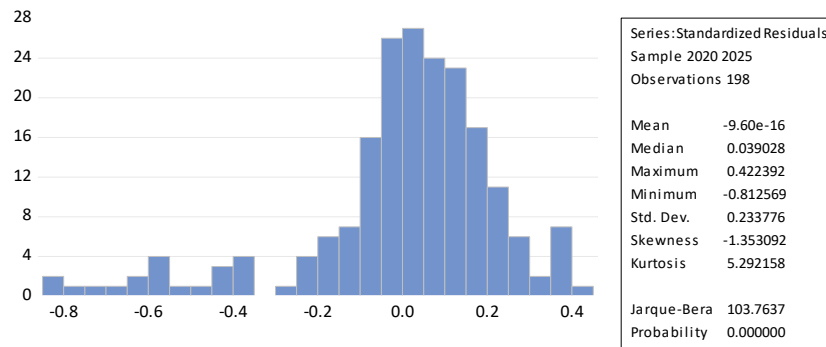


Figure 1. Results of the Normality Test

Considering Figure 1 above, normality is shown Jarque-Bera probability possesses value of 0.0000, amounting to below 0.05. Consequently, it may be evident that the normalcy assumption is not satisfied.

Heteroscedasticity Test

The heteroscedasticity test was conducted ascertain assess residual variance varied between a single data point and different regression framework (Widarjono, 2017). The criteria for this decision were derived from the residual plot.

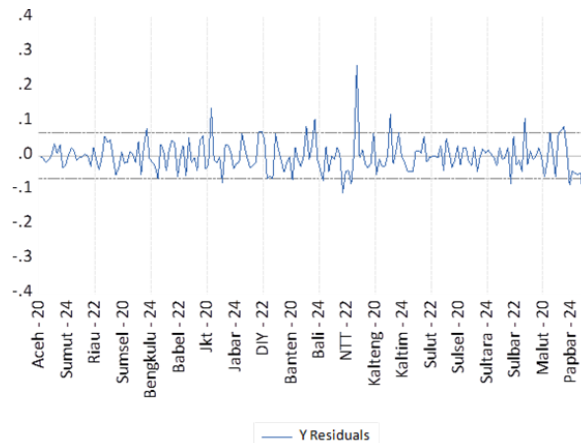


Figure 2. Results of the Heteroscedasticity Test

As can be seen in Figure 2, the graph results show that the values do not exceed the limits (500 and -500). This indicates that the residual variance is not affected by heteroscedasticity, meaning the model passes the heteroscedasticity test.

Multicollinearity Test

To identify if the explanatory variables within the regression equation have a relationship or correlation, a multicollinearity test was performed. There must not be any correlation between the independent variables within an appropriate specified model (Widarjono, 2017). Ghazali & Ratmono (2017) states when IVF value is > 10 , there is an indication of multicollinearity.

Table 5. Results of Multicollinearity Test

Variable	Coefficient Variance	Uncentered VIF	Centered VIF
X1	0.010265	89638.23	3.555497
X2	0.000506	38.58744	7.092094
X3	0.001633	11287.00	2.346100
C	1.486672	65040.40	NA

Source: Data processed by the researcher, Eviews12 (2026).

Referring to Table 5, which presents that outcomes the multicollinearity test, it suggests that no exists multicollinearity among the independent variables, as VIF statistics for all variables are under 10.

Autocorrelation Test

The serial correlation analysis was performed to identify whether there exist a serial correlation issue in the model, specifically by ensuring that the residuals between variables are independent of one another. If serial correlation is detected within the model, residuals will form a specific pattern that should not occur, causing the standard error to be inaccurate and the parameter estimates to be biased.

Table 6. Results of Autocorrelation Test

Hannan-Quinn criter.	-0.006680	F-statistic	2.336279
Durbin-Watson stat	0.138226	Prob(F-statistic)	0.075059

Source: Data processed by the researcher, Eviews12 (2026).

Referring to Table 6, result of the Durbin-Watson statistic is 0.138226. Since $0.138226 > 0.05$, this indicates that the assumption of non-autocorrelation is met, meaning no presence of strong self correlation within error terms

Hypothesis Testing

Coefficient of Determination

Based on Table 4, the R-squared value is 0.934983, meaning that 93.4% of the variation in property value fluctuations in Indonesia can be explained by macroeconomic factors, while the remaining 6.6% is explained by other variables not examined in this study.

F-Test

To determine how much independent variables exert an effect on the dependent variable in unison or in combination, the F-test is used. As presented in Table 5, F-statistic significance value is 0.0000, falling below 0.05; this suggests that property values are significantly impacted by all independent variables utilized concurrently.

T-Test

This examination is intended to determine how far every independent variable partially affects variation in the dependent variable

Table 7. Results of the Partial T-Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-6.323722	0.801834	-7.886576	0.0000
X1	0.912261	0.072781	12.53436	0.0000
X2	-0.002293	0.009122	-0.251371	0.8018
X3	-0.195059	0.037498	-5.201792	0.0000

Source: Data processed by the researcher, Eviews12 (2026).

$$Y = -6.323722 + 0.912261X1 - 0.002293X2 - 0.195059X3 + e$$

Based on Table 7, outcome can be interpreted as detailed below:

1. It is apparent that the regional consumption level shows favorable and meaningful impact ($0.0000 < 0.05$) on property values with a coefficient of 0.912261.
2. It can be seen that GRDP has no effect ($0.8018 > 0.05$) on property value, featuring a parameter of -0.002293.
3. It is apparent that liquidity supply shows negative and meaningful impact ($0.0000 < 0.05$) on property values, with a coefficient of -0.195059.

Moderated Regression Analysis (MRA)

MRA, form regression analysis equation that includes an interplay term (the product of two or more independent variables) to assess whether a moderating determinant intensifies or dampens the connection among the independent and dependent variables.

Table 8. Results of MRA

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-5.345634	1.212851	-4.407494	0.0000
X1	0.858277	0.100685	8.524349	0.0000
X2	-0.018480	0.022031	-0.838832	0.4028
X3	-0.209888	0.040222	-5.218270	0.0000
Z	-0.528053	0.509777	-1.035853	0.3019
X1Z	0.033234	0.038197	0.870068	0.3856
X2Z	0.010529	0.011823	0.890559	0.3745
X3Z	0.003200	0.007068	0.452784	0.6513

Source: Data processed by the researcher, Eviews12 (2026).

$$Y = -5.345634 + 0.858277X1 - 0.018480X2 - 0.209888X3 - 0.528053Z + 0.033234X1Z + 0.010529X2Z + 0.003200X3Z + e$$

According to Table 8, the outcomes can be explained are presented as follows:

1. Inflation, as a moderator of the effect of regional consumption levels on property values, has a probability value of 0.3856, which indicates become > 0.05 , so H_0 is rejected. Therefore, inflation cannot serve as a moderator for the variables in this study.
2. Inflation as a moderator of the effect of GRDP on property values has a probability value of 0.3745, which is > 0.05 ; therefore, H_0 is rejected. Thus, inflation cannot serve as a moderator for the variables in this study.

3. Inflation as a moderator of the effect of money supply on property value has a probability value of 0.6513, which is > 0.05 , so H_0 is rejected. Therefore, inflation cannot serve as a moderator in relation to the variables. The outcomes of hypotheses developed H_1 , H_2 , H_3 , H_4 , H_5 , and H_6 presented in this research are listed as follows:

The Effect of Regional Consumption Levels on Property Value

Referring to Table 7, it can be observed that regional consumption level yields t-statistic of 12.53436, stands at above critical t-value of 1.97233 (sig. $\alpha = 0.05$ and $df = nk$, i.e., $198-5 = 193$) at a parameter estimate of 0.912261 and a p-value of level of $0.0000 < 0.05$ (5%), so H_1 is validated. Indicates the Regional Consumption Level variable shows a favorable and substantial partial influence on Property Values in Indonesia for the period 2020–2026.

The Effect of GRDP on Property Value

As reflected in Table 7, it is apparent that GRDP yields a t-statistic figure of -0.251371 falling below the critical t-threshold of 1.97233 (sig. $\alpha = 0.05$ and $df = nk$, i.e., $198-5 = 193$) recording a coefficient of -0.002293 and a probability figure of $0.8018 > 0.05$ (5%), so H_2 is not supported. This implies that the GRDP variable fails to exert a meaningful negative individual influence on property values in Indonesia during the 2020–2026 period.

The Effect of Money Supply on Property Values

As presented in Table 7, it is evident that the money supply exerts t-statistic figure of -5.201792, falling below the critical t-threshold 1.97233 (sig. $\alpha = 0.05$ and $df = nk$, i.e., $198-5 = 193$) alongside a coefficient magnitude of -0.195059 and a probability figure of $0.0000 < 0.05$ (5%), so H_3 is accepted. Indicates, the money supply parameter has a negative and significant partial impact on property values in Indonesia from 2020 to 2026.

Inflation Moderates the Effect of Regional Consumption Levels on Property Values

Referring to Table 8, it is evident that the regional consumption value records a p-value of $0.3856 > 0.05$ (5%), so H_4 is dismissed. This indicates that the inflation variable in this hypothesis cannot moderate the effect of the regional consumption rate on property values in Indonesia from 2020 to 2026.

Inflation Moderates the Effect of GRDP on Property Values

Referring to Table 8, it is observable that GRDP score records a probability value equaling $0.3745 > 0.05$ (5%), so H_5 is dismissed. This indicates that the inflation variable in this hypothesis cannot moderate the effect of GRDP on property values in Indonesia during the 2020–2026 period.

Inflation Moderates the Effect of Money Supply on Property Values

Referring to Table 8, it is evident the money supply value records an probability value equaling $0.6513 > 0.05$ (5%), therefore H_6 fails to be supported. This signifies that the inflation variable in this hypothesis cannot moderate the impact from the monetary supply on property values across Indonesia during 2020 to 2026.

Discussion

Considering the panel data's findings regression analysis, It was discovered that the Regional Consumption Level (TKD) has a favorable and noteworthy impact on property values at the provincial level in Indonesia. This observation provides empirical confirmation of the Theory of the Consumption Function proposed by Keynes, wherein an increase in aggregate household spending capacity reflects a strengthening of real purchasing power (effective demand). When regional consumption rises, households not only meet their short-term basic needs but also allocate their excess liquidity to high-value permanent assets such as residential homes and land.

Spatially, this phenomenon is particularly evident in provinces with high urbanization centers such as DKI Jakarta, West Java, and East Java. Consistent with Rebecca (2025) argument, the growth of the urban middle class drives a shift in consumption patterns toward residential property ownership. This is in line investigation with Stanković (2022) research findings also with Isyanto et al. (2023), which confirms that regional household final consumption expenditure is one of the primary determinants driving real estate prices. This increase in effective demand from the public triggers a rightward shift in the demand curve, which ultimately leads to a sustained rise in property market values.

The t-test results show that the Money Supply (MS/M2) significantly and favorably affects property values in Indonesia. The high supply of liquidity within the macro financial system implies easier access to financing for both consumers and developers. Drawing from Irving Fisher's Quantity Theory of Money, an expansion of money supply under conditions of stable velocity of money will drive up the general price level, including real asset prices. When commercial banks have abundant liquidity, barriers to credit absorption are lowered through the offering of Home Ownership Loans (KPR) with attractive interest rates.

The ease of accessing this monetary financing encourages investors to allocate their capital to the safe real sector. Real estate is considered the most rational wealth allocation instrument because it carries a relatively low risk of physical depreciation compared to capital market instruments during times of economic turmoil. This positive correlation between the expansion of macro liquidity and primary property prices at the regional level reinforces the long-term empirical drawing from investigations carried out by Zulkifli et al. (2022) in Malaysia as

well as Khoirudin et al. (2024) in Indonesia. A smooth flow of liquidity into the banking sector has been shown to accelerate the volume of new property purchase transactions in the primary market, which ultimately boosts the aggregate nominal market value of these assets.

Outputs obtained from longitudinal data regression estimation indicate GRDP does not affect property values; fluctuations in a province's economic output do not possess a consistent, substantial influence on property degree fluctuations during observation period. An increase in a province's RDP may be enjoyed only by a small number of conglomerates or large (capital-intensive) corporations and does not trickle down to increase the real income of the lower-middle class. Since the majority of the population does not experience an increase in income, demand for new properties does not rise.

GRDP growth in certain provinces is likely dominated by the mining sector, plantation commodities, or extractive industries (for example, outside Java). When these sectors grow, the money is not reinvested in local real estate but is instead drawn to the capital (Jakarta) or other financial instruments. Property values in some regions are also often driven by speculation by large investors (from outside the region), rather than by the region's actual economic strength. Thus, even if the region's GRDP is stagnant, property prices can still rise sharply due to speculation. An increase in GRDP does not immediately prompt people to buy a home right away. There is a significant time lag for the public to save up funds or for developers to build infrastructure. Hypothesis testing using the Moderated Regression Analysis (MRA) method revealed that all parameter coefficients for the interaction variables had probability values > 0.05 . These results indicate that inflation was not proven to function as a moderating determinant in this research model. In other words, the strength of the influence of macroeconomic variables (TKD, JUB, and PDRB) on property value fluctuations at the provincial level in Indonesia is absolute and does not depend on the ups and downs of regional inflation rates. The failure of inflation to act as a moderating variable can be explained by the characteristics of domestic macroeconomic stability during the observation period. The monetary authority (Bank Indonesia), together with the Regional Inflation Control Team (TPID), has consistently succeeded in keeping the regional inflation rate within a low and predictable target range. Due to the absence of extreme inflationary shocks (hyperinflation), public inflation expectations tend to be adaptive and stable.

From the consumer's perspective, the purchase of primary real estate assets in Indonesia is seen as serving an intertemporal function as a hedging instrument against a decline in the real value of the currency. Consequently, whether inflation is rising or falling, the dynamics of regional consumption expenditure (TKD), the expansion of banking liquidity (JUB), and regional economic output capacity (PDRB) continue to transmit similar positive impacts on the appreciation of property market values. Indonesian society, particularly the upper-middle class in urban centers, views real estate as both a basic necessity and a long-term investment that is immune to seasonal inflation. Therefore, as regional consumption increases, interest in purchasing real estate remains strong and is not hindered by annual inflation fluctuations. Abundant banking liquidity (M2) and the ease of mortgage schemes remain the primary factors driving the public's decision to purchase property. The effect of this credit ease is far more dominant in influencing property market prices than the psychological or real effects of inflation itself. GRDP reflects real productivity. As long as regional economic output continues to grow steadily, the purchasing power of corporations and individuals for land and buildings will continue to rise. Moderate inflation has not distorted the positive impact of this economic growth.

Conclusion and Suggestion

Conclusion

The findings obtained from current study demonstrate that the Regional Consumption Level (RCL) exhibits a beneficial and substantial effect upon regional-level property values in Indonesia. Phenomenon confirms the *Theory of the Consumption Function* proposed by Keynes, in which an expansion in regional household spending reflects a strengthening of the public's real purchasing power, or *effective demand*. Excess liquidity, after meeting short-term basic needs, is ultimately transformed into effective demand for real assets in the form of residential property, thereby shifting the market demand curve to the right and triggering periodic appreciation in nominal property prices. Similarly, the Money Supply (MS) has been empirically proven to have a favorable and substantial effect upon property values in Indonesia. The abundance of macro liquidity (M2) within the economic system directly implies an easing of access to bank financing. These situations foster financial entities to lower barriers to credit distribution, one of which is through the offering of KPR, which in turn stimulates the interest of consumers as well as stakeholders toward place their assets in the primary property sector as a wealth accumulation instrument deemed safe.

However, it was found that RGDP does not exert a substantial impac in relation to property values in Indonesia. This finding represents an anomaly in conventional economic theory and indicates the existence of economic *inequality* at the regional level. This condition reflects that economic output growth in the region during the observation period was largely supported by capital-intensive sectors or large-scale extractive industries that did not have an inclusive *trickle-down effect* on the *disposable income* of the majority of the local population, preventing them from purchasing housing assets.

The results of statistical testing confirm that inflation does not play a moderating role in this research model. Outcome from the interaction examination reveal that the inflation parameter fails to moderate (either by strengthening or weakening) the effects of TKD, JUB, and PDRB on property values. The monetary authorities' success in keeping regional inflation rates low and stable has led to adaptive expectations among market participants. The property sector in Indonesia has proven to possess strong structural resilience as a *hedging instrument*, so that short-term fluctuations in consumer goods prices do not obscure the fundamental impact of real purchasing power and monetary liquidity on the formation of property market values.

The current research is anticipated to keep on support maintaining macroeconomic stability, particularly the availability of healthy monetary liquidity, so that access to KPR remains affordable for low- and middle-income households. Furthermore, given that regional GDP does not correlate linearly with rising property values, local governments need to formulate more inclusive economic policies. Strengthening labor-intensive real sectors is necessary to ensure that regional economic growth is truly distributed evenly, resulting in causing the real consumer purchasing capacity for local communities to own decent housing.

Suggestion

Based on the findings of this study, policymakers should continue to maintain macroeconomic stability, particularly by ensuring adequate monetary liquidity and supporting affordable housing finance schemes to facilitate access to property ownership among low- and middle-income households. Given that regional consumption levels and money supply were found to significantly influence property values, government institutions and monetary authorities are encouraged to strengthen policies that sustain household purchasing power and promote a healthy financial environment. Furthermore, the insignificant effect of GRDP on property values suggests the need for more inclusive regional development strategies that translate economic growth into broader income gains for local communities. Future research is recommended to incorporate additional determinants of property values, such as interest rates, urbanization, population growth, housing supply, and infrastructure development, as well as to extend the observation period and employ alternative econometric approaches to provide a more comprehensive understanding of property market dynamics in Indonesia.

References

- Abasimi, I., Nabila, A., Ramdhan, M. A., & Anam, M. S. (2025). Determinants of Residential Property Price in Selected Asian Countries : A Sys-GMM Approach. *Journal of Asset Management and Public Economy*, 4(1), 65–85. <https://doi.org/https://doi.org/10.12928/jampe.v4i1.11927>
- Chen, Y. (2024). Correlation Between Inflation and Real Estate Prices : Case Analysis of China and the United States. *Highlights in Business, Economics and Management*, 39, 50–56. <https://doi.org/https://doi.org/10.54097/eq07n304>
- Ehigiamusoe, K., Gupta, V., & Narayanan, S. (2021). Rethinking the impact of GDP on financial development: Evidence from heterogeneous panels. *African Development Review*, 33, 1–13. <https://doi.org/https://doi.org/10.1111/1467-8268.12469>
- Gao, X., Kong, W., & Hu, Z. (2022). The Effects of National Fundamental Factors on Regional House Prices : A Factor-Augmented VAR Analysis. *Journal of Risk and Financial Management*, 15(7), 309. <https://doi.org/https://doi.org/10.3390/jrfm15070309>
- Ghozali, I., & Ratmono, D. (2017). *Analisis Multivariat dan Ekonometrika: Teori, Konsep, dan Aplikasi dengan EvIEWS 1*. Badan Penerbit Universitas Diponegoro.
- Handayani, & Nuswandari. (2025). Pengaruh Inflasi , Suku Bunga BI , Nilai Tukar / Kurs dan Gross Domestic Product Terhadap Indeks Harga Saham Sektor Property dan Real Estate di Bursa Efek Indonesia Tahun 2020-2024. *JEMSI (Jurnal Ekonomi, Manajemen, Dan Akuntansi)*, 11(5), 4680–4690. <https://doi.org/https://doi.org/10.35870/jemsi.v11i5.5059>
- Hasbi, I., Arifin, A. H., Akbar, H. A., Damanik, D., Runtunuwu, P. C. H., Peranginangin, A. M., Bhegawati, D. A. S., Zulaikah, Purba, M. L., Iswadi, U., Riswanto, A., Hayati, T. P. T. N., & Eka, A. P. B. (2024). *Ekonomi Moneter* (Aslichah (ed.)). WIYATA BESTARI SAMASTA. https://www.researchgate.net/profile/Darwin-Damanik/publication/380355226_E-BOOK_EKONOMI_MONETER/links/66378a3a08aa54017adca6bd/E-BOOK-EKONOMI-MONETER.pdf#page=20
- Istifadah, M., & Andriani. (2023). THE EFFECT OF HOUSEHOLD CONSUMPTION EXPENDITURE (PKRT) AND GROSS FIXED CAPITAL FORMATION (PMTB) ON ECONOMIC GROWTH (PDRB) IN EAST JAVA FOR THE PERIOD 2012 TO 2021. *International Journal of Religion and Social Community*, 1(1), 47–68. <https://doi.org/https://doi.org/10.30762/ijoresco.v1i1.3411>
- Isyanto, P., Zulkarnain, S. H., & Nawi, A. S. (2023). *The Influence of Macroeconomic Factors on Residential Property Prices in Malaysia Before and During COVID-19*. 14(March), 111–120. <https://doi.org/10.21512/bbr.v14i1.8225>
- Keynes, J. M. (2018). *The General Theory of Employment, Interest, and Money*.
- Khoirudin, R., Adi, P. H., & Suharno. (2024). The VECM implementation for measuring the impact of monetary

- variables on Indonesia Property Prices Index. *Investment Management and Financial Innovations*, 21(4), 79–89. [https://doi.org/10.21511/imfi.21\(4\).2024.07](https://doi.org/10.21511/imfi.21(4).2024.07)
- Kurniawan, M. L. A., Khasanah, U., & Baharudin, S. A. (2023). *Determinant of Property Price Through the Monetary Variables : An ARDL Approach*. 24(1), 12–23. <https://doi.org/10.23917/jep.v24i1.20588>
- Lewandowska, G., Taracha, M., & Maciuk, K. (2023). Socio-economic factors associated with house prices . Evidence based on key macroeconomic aggregates globally. *Budownictwo I Architektura Civil and Architectural Engineering*, 22(3), 45–58. <https://doi.org/10.35784/bud-arch.3635>
- Meiriza, M. S., Sinaga, D. L., Tinambunan, F. U., Saragi, S. L., & Sitio, V. (2024). Teori Ekonomi Keynesian Mengenai Inflasi dan Pengaruhnya Terhadap Ekonomi Modern. *INNOVATIVE: Journal Of Social Science Research*, 4(2), 2433–2445. <https://doi.org/https://doi.org/10.31004/innovative.v4i2.9754>
- Prakoso, R. D. (2025). *Survei Harga Properti Residensial Triwulan II 2025: Harga Properti Residensial Tumbuh Terbatas*. Berita Terkini (Siaran Pers). https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_2717425.aspx?utm_source=
- Pratami, F. P., Marwa, T., Andaiyani, S., & Abukosim. (2024). WHAT FACTORS CAN AFFECT INDONESIAN PROPERTY PRICE ? *TRIKONOMIKA*, 23(1), 49–54. <https://doi.org/https://doi.org/10.23969/trikononika.v23i1.7730>
- Rahmadi, F., & Aimon, H. (2022). *Analisis Dampak Instrumen Kebijakan Moneter Terhadap Stabilitas Perekonomian di Indonesia*. 4(4), 21–28.
- Rahman, M. F. A., & Ridzuan, A. R. (2020). Factors that Determine House Price Index in Malaysia. *International Journal of Academic Research in Accounting, Finance and Management Sciences*, 10(1), 351–359. <https://doi.org/10.6007/IJARAFMS/v10-i1/7224>
- Rebecca. (2025). *Indonesia Residential Real Estate Market*. Ken Research. https://www.kenresearch.com/indonesia-residential-real-estate-market?utm_source=
- Rosini, I. (2023). *Metode Penelitian Akuntansi Kuantitatif dan Kualitatif* (H. Rusli & D. R. Hakim (eds.)). ADAB. https://www.google.co.id/books/edition/Metode_Penelitian_Akuntansi_Kuantitatif/wnG3EAAQAQBAJ?hl=id&gbpv=1&dq=teknik pengumpulan data kuantitatif sekunder&pg=PR1&printsec=frontcover
- Rubens, J., Bond, M., & Webb, J. (1989). Rubens, J., Bond, M., & Webb, J. The Inflation-Hedging Effectiveness of Real Estate. , 4(2), . *Journal of Real Estate Research*, 4(2), 45–55. <https://doi.org/https://doi.org/10.1080/10835547.1989.12090578>
- Son, J. C., & Park, H. (2020). The Effects of Regional House Prices on Consumption in Korea : Heterogeneous Behaviors According to Homeownership Status and Lifecycle Stage. *Sustainability*, 12, 4–7. <https://doi.org/https://doi.org/10.3390/su12093517>
- Stanković, D. (2022). ANALYSIS OF THE IMPACT OF MACROECONOMIC FACTORS ON REAL ESTATE PRICES IN BOSNIA AND HERZEGOVINA. *ECONOMICS*, 10(2), 147–160. <https://doi.org/10.2478/eoik-2022-0015>
- Syahda, P. E., & Retnasih, N. R. (2025). The impact of globalization , macroeconomic variables , and financial development on economic growth : Evidence from ASEAN countries. *Optimum: Jurnal Ekonomi Dan Pembangunan*, 15(1), 98–110. <https://doi.org/10.12928/optimum.v15i1.12113>
- Szentesi, S. G., Florina, N., & Szentesi, G. (2024). Standardization of Regression Equation Parameters in the Case of Multiple Linear Regression for an Econometric Model Development to Determine the Price of Apartments. *Proceedings of the International Conference on Business Excellence*, 18, 2344–2352. <https://doi.org/10.2478/picbe-2024-0198>
- Tremblay, N. (2025). The Impact of Inflation on Household Consumption : An Econometric Analysis from Emerging Markets. *OTS Canadian Journal Published*, 4(5), 20–30. <https://doi.org/https://doi.org/10.58840/jfcapb20>
- Wang, X. (2025). *Exploring the Impact of China 's Economic Dynamics on the Real Estate Market : 2002-2022*. 0, 30–36. <https://doi.org/10.54254/2754-1169/145/2024.LD19019>
- Widarjono, A. (2017). *Ekonometrika: Pengantar dan Aplikasinya*. UPP STIM YKPN.
- Yuan, Y. (2023). Analysis of the Effectiveness of Real Estate Market to Household Consumption under Macro-control Policy. *Academic Journal of Business & Management*, 5(12), 138–145. <https://doi.org/10.25236/AJBM.2023.051224>
- Zulkifli, A. B., Kogid, M., Pinjaman, S., & Alin, J. M. (2022). *Macroeconomic Variables and Malaysia House Price Index*. 11(1), 94–103. <https://doi.org/10.6007/IJAREMS/v11-i1/12214>