

# **HOME OWNERSHIP DYNAMICS: ANALYSIS OF THE IMPACT OF GOLD, BONDS AND STOCKS ON PROPERTY INVESTMENT MODERATED BY LOAN INTEREST RATES**

**Harsono Yoewono**

Department of Accounting, Faculty of Business, Multimedia Nusantara University, Indonesia  
*Corresponding author:* [harsono@umn.ac.id](mailto:harsono@umn.ac.id)

## **Abstract**

The purpose of this study is to examine how shares, bonds, and gold affect real estate investment, which is influenced by loan interest rates. In this study, the data type used is quantitative. Secondary data in the form of residential property price index data, bonds, stocks, loan interest rates and gold prices were sourced from Bank Indonesia. On a monthly basis, sampling employed a time series data method. Multiple linear regression is the data analysis technique employed in this study, which makes use of the E-views software. The study's findings indicate that gold has little bearing on real estate investments. Bonds have an impact on real estate investing. This demonstrates how interest rates or the inclination to invest in real estate can be impacted by an increase in bonds. Increase in shares can influence the interest or tendency to invest in property. Loan interest rates cannot moderate the influence of gold on property investment. Loan interest rates can moderate the effect of bonds on property investment. The results of this research show that there is a negative correlation, meaning that loan interest rates can weaken the influence of bonds on property investment. Loan interest rates can moderate the influence of shares on property investment. The results of this research show that there is a negative correlation, meaning that loan interest rates can weaken the influence of shares on property investment.

**Keywords:** Gold, Bonds, Stocks, Property Investment, Loan Interest Rates

## **INTRODUCTION**

Urban economics and branches of mainstream economics stated that housing shortages are considered to limit migration into thriving cities, curbing their expansion potential, generating rising social and spatial inequalities and inhibiting national growth (Pose and Storper, 2019). This phenomenon can be seen in the rise of global urbanization, where people migrate from rural areas to large cities in search of employment opportunities and a better life (Ahmeti&Lecaj, 2023). As the population increases in big cities, it certainly has an impact on the increasing need for housing. Based on data from the Ministry of PUPR, as many as 10.51 million households in Indonesia will not have a home in 2022. Of that number, as many as 4.39 million households that do not have a home are millennials (Fadilah&Fazizah, 2023).

Based on research results, it is known that as many as 4.39 million households that do not yet own a house belong to the millennial generation. Generation Then,

as many as 1.51 million households who do not own a home are the baby boomer generation, and the pre-boomer generation who do not own a home are 201,371 households. Meanwhile, generation Z, which does not have a place to live, has 97,903 families. Additionally, there are 6.13 million households currently living in rent-free housing. As many as 3.95 million households live in rented houses. There are 423,661 households still living in official residences. Meanwhile, there are 4,410 families who still live-in other houses (Inesencia, 2020).

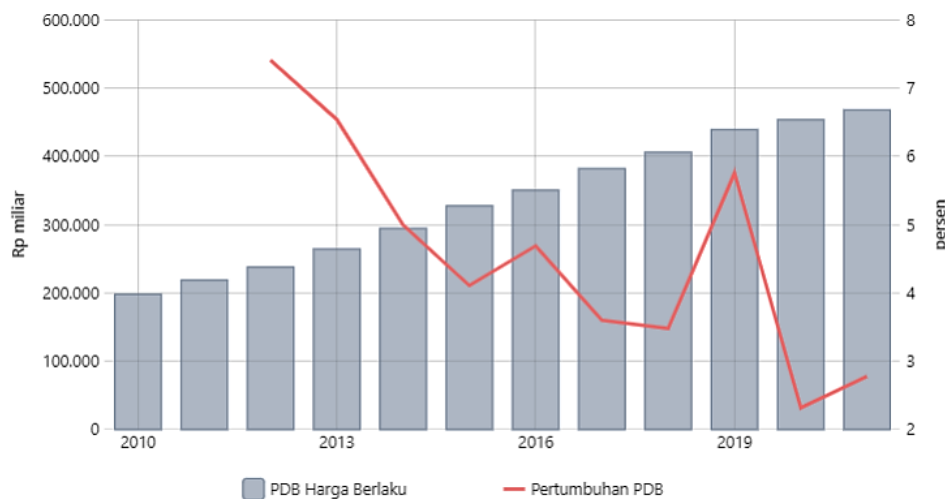
With the number of unhoused households in the millions, it is clear that the homeownership backlog is one of the country's major challenges. The increase in the number of households still living in rent-free houses, rented houses, and official houses reflects the difficulty of accessing home ownership directly (Al-Matari et al., 2023). Millennials and Generation X, two generational groups that should be at the peak of economic productivity, show significant numbers

in the category of households that do not yet own a home. This might be a sign of the financial hardship these generations are experiencing, which may be due to the issue of skyrocketing property prices or the challenge of obtaining home loans (Al-Rimawi&Kaddumi, 2021).

Therefore, it is important to understand personal financial conditions that provide better awareness of priorities and financial capabilities for achieving home ownership goals. Good financial planning should include risk options, personal life and future goals (Alshammari et al., 2020). This is done by choosing investment options that are suitable and in accordance with the

needs, personality and investment objectives. There are many investment options that can be used as choices in making investments, ranging from investing in property, bonds, gold, and stocks (Antwi et al., 2021).

In 2019 to 2022, the property sector in Indonesia experienced various dynamics influenced by gold price fluctuations, where rising gold prices tended to indicate economic uncertainty, so investors looked for more stable assets such as real estate. In 2021, the real estate sector grew by 2.78%, higher than the previous year which only grew 2.32%, but still lower than national GDP growth of 3.69% (katadata.co.id, 2022).



**Figure 1.** Real Estate Sector GDP Value and Growth (2010-2021)

The COVID-19 pandemic has had a significant impact on the real estate sector, especially in 2020 where the growth of this sector experienced a drastic decline. However, in 2022, property credit will experience growth of 10.74%, showing recovery after the decline in 2020 and 2021 (Bisnis.com, 2022).

Investing in property can be considered a strategic step towards achieving home ownership. One of the main advantages of property investment is the potential growth in the value of the property over time. In the long run, property usually experiences an increase in value, which can be a profitable investment. In this context, the investment instrument becomes an important factor to consider. Property investment is an attractive option in a long-term financial plan. This investment can not only be a means of owning your

own home but also provides the potential for growth in property value over time. The performance of property sector shares in Indonesia, represented by the IDXPROP index, experienced a significant decline during this period. For example, PT PolluxProperti Indonesia (POLL) shares fell by around 60.80% in 2021, affecting the overall index. This decline was largely due to low liquidity and valuations that were already high before the decline (Bisnis.com, 2021). Even though we have received various incentives from the government, such as exemption from Value Added Tax (VAT) for landed houses and flats, the performance of property stocks remains weak. This shows that the positive sentiment from incentives is not strong enough to boost stock performance in this sector.

Property is one of the sectors that contributed the most to investment realization in Indonesia in the first

quarter of 2023. In this case, property investment includes housing, industrial estates and offices. Not only that, property assets can also be used as a long-term investment that generates profits (Choudhry et al., 2015). In addition to property investment, financial planning as a strategic step to achieve home ownership can also involve other investment instruments, such as gold investment. The combination of constant value and relatively low risk associated with gold investment makes it beneficial, particularly for novice investors (Dahal et al., 2023). Gold has a propensity to hold its value even in times of economic uncertainty, unlike other investments that frequently fluctuate and are subject to numerous factors. This means that gold is not only considered a safe and reliable asset but also has a manageable level of risk. This can be an advantage, especially for investors who are new to investing and are looking for stability in portfolio value growth (Fera & Salzillo, 2021).

The next investment option that can be considered in financial planning to achieve home ownership is a bond investment. Governments, businesses, or financial institutions can raise money by issuing bonds as debt securities. Unlike property or gold investments, bonds are debt instruments that provide returns in the form of fixed interest. A bond investment has several advantages compared to other investments (Hepsen & Vatansever, 2012). Some of the advantages include guaranteed security; in addition, bond investments provide benefits in the form of interest or coupons with a higher value than deposit interest; periodic coupon payments that offer a stable source of income; and higher liquidity compared to other long-term investments. With the combination of safety, guaranteed income, and good profit opportunities, bond investing is an attractive option for achieving financial goals (Ho & Iyke, 2017). The bond market in Indonesia is also experiencing challenges. Although bonds are often considered a safer investment than stocks, an expected increase in interest rates in 2022 could put pressure on bond prices. However, the purchase of Government Securities (SBN) by Bank Indonesia under the burden sharing scheme is expected to support bond

prices (ocbc.id, 2021). The high real yield on Indonesian bonds compared to other countries in Asia Pacific provides a special attraction for investors, although the bond market remains influenced by global monetary policy and domestic inflation.

The next investment option that can be considered in financial planning to achieve home ownership is stock investment. Shares represent ownership in a company and can provide returns through rising share prices or dividends. The advantages of equity investment involve the potential for high returns, especially in the long term, as well as high liquidity as shares can be traded on the stock market (Kameel et al., 2023). However, it is important to remember that stock investment also involves higher risks, including market price fluctuations and potential losses. Therefore, stock selection and portfolio diversification are key to managing risk. Equity investments can be an important element in designing a balanced investment portfolio and can provide significant capital growth, accelerating the achievement of homeownership goals (Kotha & Sahu, 2016).

Deposit interest rates can affect investments in gold, bonds, equities, and real estate with the goal of becoming a home owner. One of the key elements that can impact an investment portfolio's asset performance is interest rates. Generally speaking, investment will be slow if interest rates rise. The rationale is that virtually all borrowing expenses for businesses and consumers in an economy are impacted when financial institutions raise interest rates (Kraiwani, 2021). Conversely, if interest rates fall, the opposite will take place. The demand for investments rises as interest rates decline. Financial institutions will lower interest rates to encourage lending as the economy weakens. Thus, changes in interest rates can signal and play a key role in shaping investors' decisions regarding asset allocation in their portfolios. Understanding the dynamics of interest rates is important when planning investment strategies that are responsive to changing economic conditions (Kumar, 2017).

The link between gold prices, bond prices, stock prices, and home values has

been the subject of numerous prior studies. First, we discovered a strong correlation between the price of gold and the index of residential property prices. Second, we found that house prices are significantly influenced by gold prices (Marashdeh et al., 2021). Furthermore, it was found that gold price fluctuations and investment risk affect public interest in gold savings products. These results explain that the phenomenon of global economic ups and downs affects an individual's decision to invest in gold (Moropane et al., 2023). Gold and real estate are often considered hedge assets against inflation. When inflation increases, investors tend to shift their funds to assets that are considered safer and able to maintain value such as gold and property (Le & Chang, 2011). According to Liang & McIntosh (1998), investors often use a combination of assets such as gold, bonds, shares and real estate to diversify their portfolios to reduce risk. Real estate is often considered an investment that has a low correlation with stocks and bonds, thereby adding stability to a portfolio. The relationships between gold prices, bonds, stocks, and real estate prices reflect complex market dynamics and depend on various macroeconomic factors such as interest rates, inflation, and general economic conditions. Investors typically use diversification to manage risk, and understanding the relationships between these assets helps in making investment decisions.

Rare investigations continue to look at the relationship between investments in gold, bonds, equities, and homes or property and the phenomena described and previous research findings. This research intends to fill the gaps in previous research by asking research questions regarding whether investing in gold, bonds, shares and property is still profitable, what investment instruments provide the maximum rate of return from the four investment instruments, and what impact this has on gold, bonds and share ownership. Property investment is moderated by loan interest rates. In addition, this research offers an integrated approach that considers the complex interactions between gold, bonds, stocks, and real estate prices. As well as providing insight for investors

and policy makers into how various financial instruments can be used to predict and manage risk in the real estate market. The motivation behind this research is to understand in more depth how major financial instruments influence real estate prices. It then provides guidance for investors in making better investment decisions in the real estate sector and also provides a basis for policy makers to develop more effective economic policies in managing the real estate market. The real estate market is one of the important sectors in a country's economy. Real estate prices are influenced by various economic and financial factors, including the prices of commodities such as gold, bonds, and stocks. Understanding how these three financial instruments affect real estate prices is critical for investors, policymakers, and academics. Specifically, this research aims to analyze how the prices of gold, bonds and shares affect real estate prices.

#### LITERATURE REVIEW

According to the investment theory by Sternberg and Lubart (1991), creative people are willing and able to buy low and invest high in the realm of ideas. Creative individuals persist despite adversity and eventually their creative product is realized and recognized. According to the investment theory, six distinct but interrelated resources must converge. They include intellectual abilities, knowledge, thinking styles, personality, motivation, and environment (Sternberg, 2012). These resources can be divided into five person-centered and one context-centered resources (Zhang & Sternberg, 2011). Real estate investing involves the purchase of real estate for profit (Kaklauskas & Zavadskas, 2009). Profits are accumulated slowly by renting out properties in a cashflow method, or are generally improved and resold for a capital gain. In addition, real estate investors may wholesale properties as a means to make profits. While investing in most assets requires the purchaser to have the full purchase price available for the asset, in real estate investing, one only needs to have a fraction of the purchase price available (like 5%, 10% or 20%) as a down

payment. Real estate is an illiquid investment that needs maintenance and taxes to be paid.

Investment demand for gold has major variety of typical features. Flexible reaction to price signals and high significance of price expectations in sense of forming investors' behavior have more importance on the gold market than on the stock market (Sazonov & Nikolaev, 2013). That is because the level of yields on the market of gold investment is completely defined by the price performance of concerned asset. Positive reaction of investors to increase in the price of gold can't last indefinitely. When the price of gold exceeds some point, gold becomes an overestimated asset. When aspiring to equilibrium, the market will prevent further increase in the price of gold. It means that when gold becomes overestimated, the quantity of gold demanded by investors decreases in response to increase in price. The investment demand for gold curve will have a negative slope in the case of overestimation of gold. There is a price period where gold is correctly estimated and the investment demand for gold curve has a positive slope. This price period is situated between two price periods where gold is overestimated and underestimated and near equilibrium price (Burton, 2003).

Bonds are a fixed income stock investment that aims to provide a relatively stable growth rate of investment value with relatively more stable risk compared to stocks (Sondakh, 2022). Bonds are issued by governments and corporations when they want to raise money. By buying a bond, giving the issuer a loan, and they agree to pay back the face value of the loan on a specific date, and to pay periodic interest payments along the way, usually twice a year. Unlike stocks, bonds issued by companies give you no ownership rights. Most folks own bonds in their portfolio to mitigate the downside of downturns, but the particulars might be nebulous for some. Bonds are frequently referred to as fixed income because they are fixed contractual obligations (McKay & Peters, 2019).

When establishing a corporation,

owners may choose to issue stock to raise capital. Companies then divide their stock into shares, which are sold to investors. These investors are generally investment banks or brokers that, in turn, sell the shares to other investors individually or through instruments like a mutual fund or exchange-traded fund. Shares are the equivalent of ownership in a corporation. Because they represent ownership, not debt, there is no legal obligation for the company to reimburse the shareholders if something happens to the business (Eichler, 2024). A stock represents ownership in a corporation and constitutes a claim on part of the company's assets and earnings. Stocks are bought and sold on stock exchanges, and their prices fluctuate based on supply and demand, company performance, and broader economic factors. Investors buy stocks for various reasons, including to achieve capital growth, receive dividend income, or gain voting power within the company. Bansal et al. (2021) revealed that capm states that there is a positive relationship between risk and return associated with a stock.

Businesses take out loans to fund capital projects and expand their operations by purchasing fixed and long-term assets such as land, buildings, and machinery. Borrowed money is repaid either in a lump sum by a pre-determined date or in periodic installments. For loans, the interest rate is applied to the principal, which is the amount of the loan. The interest rate is the cost of debt for the borrower and the rate of return for the lender (Alafif, 2023). Loan offers solution saying that the interest rate should avoid extreme deviations and suggests these policies, fiscal policies that promote stability; efficiency of financial markets through competition and transparency; harmonization of the relationship between population growth and report capital / investments; management of risks (Spahija, 2016).

## RESEARCH METHODOLOGY

The type of data in this study, based on its nature, is quantitative because the data is in the form of numbers. Based on how it is obtained, it includes secondary data because the data is taken indirectly,

namely by going through intermediary media (recorded by other parties). Secondary data in the form of residential property price index data, bonds, stocks, loan interest rates and gold prices were sourced from Bank Indonesia. Sampling using a time series data approach with a monthly scale consisting of residential property price index, bonds, stocks, loan interest rates and gold prices on a monthly basis.

Multiple linear regression analysis is used in this research to measure the relationship between the dependent variable (real estate prices) and one or more independent variables (prices of gold, bonds and shares), with the help of the E-views program. On the other hand, descriptive analysis has been carried out previously. Traditional assumption tests are carried out initially to ensure that the data is appropriate and distributed in an orderly manner before data analysis is carried out. The normality, multicollinearity, heteroscedasticity, and autocorrelation tests make up the traditional assumption test. The study hypothesis put out to ascertain the link between the independent and dependent variables will be addressed by the regression analysis's findings.

This model is used to test the relationship between the dependent variable (real estate prices) and several independent variables (prices of gold, bonds and shares) are:

$$\text{Real Estate Price} = \beta_0 + \beta_1 (\text{Gold Price}) + \beta_2 (\text{Bond Price}) + \beta_3 (\text{Stock Price}) + \epsilon$$

## RESULTS AND DISCUSSION

### RESULTS

From the data presented, it can be seen that property return growth tends to rise from quarter 1 to quarter 4, with the fourth quarter showing a significant spike of 2.81%. However, the growth in the previous quarters was also relatively stable, ranging from 0.28% to 0.37%. With a total accumulated return of 3.78%

over the three-year period. Looking at the residential property price index's 3.78% total accumulated return value. This demonstrates that the primary market's residential property prices are developing at a rising rate, indicating an annual gain in house prices that, if compounded over three years, is rather substantial. Thus, it can be concluded that investment in home property is still profitable.

Gold investment return data shows significant fluctuations in the monthly return of gold during the period. Despite the fluctuations, overall, gold showed a quite favorable performance with an accumulated return of 18.92%. This return value is greater than the risk-free interest rate of only 5.5% in 2023. There are months with high growth, such as February with 2.70%, June with 5.19%, November with 3.12%, and December with 7.90%. However, there are also months with declines, such as March, May, July, August, and October, which experienced negative returns. Thus, it can be concluded that gold investments are still profitable.

According to bond performance data from 2019 to 2022 as a whole, monthly bond returns fluctuated, reaching a high of 7.29% in April and a low of 6.57% in December. Despite the variations, the average return over the period reached 6.96%. This suggests that investment in bonds over the three-year period is considered a positive indicator for investors, as it shows that bonds can provide a relatively guaranteed return on investment over the period. This could be an attraction for those looking for investments with a lower level of risk than some other financial instruments. Because the rate of return on these bonds is higher than the risk-free interest rate, which is set at 5.5% in 2023, investing in them is still reasonable.

A summary or explanation of the profitability of stock investments may be found in Table 1 below.

**Table 1.** Stock Data for 2019–2022

Month	Return
January	0.24%
February	-3.84%
March	1.38%
April	-1.38%
May	0.42%

June	1.66%
July	1.36%
August	-2.12%
September	2.79%
October	0.77%
November	1.87%
December	6.40%
Accumulated Return	9.54%

Source: Researcher Processed Results (2024)

The stock performance data from 2019 to 2022 shows that the stock experienced significant monthly fluctuations over the period. Despite the fluctuations, overall, stocks showed growth with an accumulated return of 9.54%. This return value is greater than the risk-free interest rate of only 5.5% in 2023. Some months showed significant increases, such as March with 1.38%, June with 1.66%, July with 1.36%, September with 2.79%, November with

1.87%, and December with 6.40%. However, there were also months with negative performance, such as February, April, August, and October, which experienced a decline in value. Thus, it can be concluded that investing in stocks is still profitable.

To better understand which investment option is the most profitable, a comparison of return data will be made, as can be seen in table 2 below.

**Table 2.** Investment Comparison Return Data

Investment Type	Return Period 2019-2022
Property Investment	3.78%
Gold Investment	18.92%
Bond Investment	6.96%
Stock Investment	9.54%

Source: Researcher Processed Results (2024)

After conducting thorough research, it can be said that investing in gold is the most beneficial option when it comes to financial instruments. During this period, gold investments recorded a return of 18.92%, which is much higher than property, bonds, and stocks. Property investments showed a return of 3.78%, while bond and stock investments reached 6.96% and 9.54%, respectively. Therefore, for investors looking for higher potential returns, the data suggests that investing in gold could be a more profitable option during this time frame.

The gold variable on property investment obtained a coefficient beta value with a positive relationship direction of 1.3107 and a prob value of 0.9911. Thus, the first hypothesis is rejected. That is, gold has no effect on property investment.

The bond variable on property investment obtained a coefficient beta value with a positive relationship direction of 0.002647 and a prob value of

0.0379. Thus, the second hypothesis is accepted. This means that bonds have an effect on property investment.

The variable shares on property investment obtained a coefficient beta value with a positive relationship direction of 0.005595 and a prob value of 0.0001. Thus, the third hypothesis is accepted. That is, stocks have an effect on property investment.

The loan interest rate moderated the gold variable on property investment, which obtained a coefficient beta value with a negative relationship direction of -2.0909 and a prob value of 0.9987. Thus, the fourth hypothesis is rejected. This means that the loan interest rate cannot moderate the effect of gold on property investment.

The loan interest rate moderated the bond variable on property investment, which obtained a coefficient beta value with a negative relationship direction of -0.000275 and a prob value of 0.0361. Thus, the fifth hypothesis is accepted.

This means that the loan interest rate can moderate the effect of bonds on property investment.

The variable shares on property investment moderated by the loan interest rate obtained a coefficient beta value with a negative relationship direction of -0.000578 and a prob value of 0.0003. Thus, the sixth hypothesis is accepted. This means that the loan interest rate can moderate the effect of stocks on property investment.

## DISCUSSION

The first hypothesis' test findings demonstrate that gold has no bearing on real estate investments. This means that the rise and fall of gold prices cannot affect property investment. Location is an element that makes investing in property so attractive. The choice of a place that is visible and easy to approach is also the reason property investment can be attractive. In addition, understanding the potential of "sunrise property" is also important. This includes the stability of the region, major infrastructure development, and its existence as a buffer zone for the capital city. By combining all these factors, a promising property investment opportunity can be created with high growth and value potential. There is a difference in this situation in terms of the various economic factors that affect gold's movement, such as inflation, exchange rates, and political unpredictability. However, local factors including location, infrastructure, market demand, and government policies have a greater impact on property prices.

The results of testing the second hypothesis show that bonds affect property investment. This shows that an increase in bonds can affect the interest rate or tendency to invest in property. This relationship can indicate the existence of certain patterns or trends in the financial markets that have an impact on the property market. Where there is a change in the bond interest rate, it can affect interest on property investments. Interest rate fluctuations have a significant impact on bonds as an investment. Bond prices decrease as interest rates rise because freshly issued

bonds with greater interest rates will become more appealing than existing ones. Bond prices, on the other hand, increase as interest rates decrease. In this case, the decline in bond interest rates can reduce the benefits obtained by investors from bonds, so investors may look for more profitable investment alternatives, such as property.

The results of testing the third hypothesis show that stocks affect property investment. This shows that rising stocks can affect interest or the tendency to invest in property. In this context, good stock market performance can increase investor confidence and purchasing power, which in turn can encourage interest in investing in property. This possibility can occur because in property investment, the value increases every year. Property assets are one of the investment options that are often prioritized. This is because, in addition to being a financial asset, property assets can also function to fulfill basic human needs, namely shelter. The advantage is that maintenance is relatively simpler and does not require large costs. Not only that, property assets can also be used as long-term investments that generate profits. Thus, the conclusion that can be drawn is that good stock market performance can increase interest and the inclination to invest in property, given its long-term value and benefits.

The fourth hypothesis's test findings demonstrate that the impact of gold on real estate investment cannot be mitigated by the interest rate on loans. This can be interpreted as meaning that loan interest rates do not have the ability to reduce or control the impact that investment in gold has on property investment. In other words, although lending rates may change, these changes are unable to influence the effect of gold on property investment decisions. In this context, the most decisive thing is to determine the investment strategy. Investors must consider market conditions, the right type of loan, and conduct thorough market research. By understanding how interest rates affect property investment, investors can anticipate changes in interest rates by adjusting investment strategies to market conditions.



The fifth hypothesis's test findings demonstrate that the impact of bonds on real estate investment can be mitigated by the interest rate on the loan. The results of this study show a negative correlation, meaning that the loan interest rate can weaken the influence of bonds on property investment. In general, bond-based instruments can potentially weaken when interest rates rise, so this can reduce bond prices and reduce demand for bonds that have high interest rates. Therefore, investors may be more cautious when considering bonds as part of their portfolio, as higher borrowing costs may affect the potential returns from property investment.

The sixth hypothesis was tested, and the findings indicate that shares' influence on real estate investment can be mitigated by the interest rate on the loan. The study's findings indicate a negative association, which suggests that the impact of shares on real estate investment may be mitigated by loan interest rates. Stock prices that are traded on the stock exchange typically experience a dramatic decline when interest rates rise. Moreover, as the cost of purchasing and financing real estate tends to increase, rising interest rates may have an impact on demand. In this context, an increase in interest rates can be detrimental to stock performance and property investment because it reduces potential profits and tends to divert their investment, so this has an impact on reducing the level of property investment.

## CONCLUSION

In comparison to investments in real estate, bonds, and stocks, gold is the investment kind that yields the highest return, according to the findings and debate. Gold has no bearing on investing in real estate. This implies that investing in real estate cannot be impacted by changes in the price of gold. Bonds have an effect on property investment. This shows that the increase in bonds can affect the interest rate or tendency to invest in property. Stocks have an effect on property investment. This shows that an increase in stocks can affect the interest rate or tendency to invest in property. The loan interest rate cannot moderate the effect of gold on property

investment. This can be interpreted as meaning that loan interest rates do not have the ability to reduce or control the impact that investment in gold has on property investment. Loan interest rates can moderate the effect of bonds on property investment. The results of this study show a negative correlation, meaning that the loan interest rate can weaken the effect of bonds on property investment. The loan interest rate can moderate the effect of shares on property investment. The results of this study show a negative correlation, meaning that the loan interest rate can weaken the effect of shares on property investment.

The study's findings support the notion that fluctuations in gold prices have no bearing on real estate investing. Therefore, property investors may not need to consider fluctuations in the value of gold too much in making their investment decisions. However, it should be noted that rising bond prices may affect the interest or inclination to invest in property. Likewise, a rise in the value of stocks can affect investors' interest in investing in property. While lending rates are not able to moderate the impact of gold on property investment, they can play an important role in moderating any negative effects that may arise from rising bonds or stocks. In order for real estate investors to make more informed decisions more quickly, it is imperative that they actively watch the bond, stock, and lending rate markets.

Some implications that can be taken are; Investors who tend to use gold as a hedge asset may need to consider further diversifying their portfolio. Since gold price fluctuations do not have a significant effect on real estate investments, investors may need to explore other assets that are more correlated with real estate to increase diversification and risk mitigation. An increase in bond and stock prices can affect the interest or tendency to invest in property. Investors need to monitor bond and stock market movements as more relevant indicators in real estate investment decisions. A rise in bond prices could shift funds from real estate to bonds due to more attractive returns, while a rise in share values could

encourage investors to prefer the stock market to property. The further finding that loan interest rates are unable to moderate the impact of gold on property investment, but can moderate the impact of bonds or shares, suggests that policymakers should consider careful interest rate policies. Lower interest rates can encourage investment in real estate by making loans cheaper, while higher interest rates can limit capital flows to the property sector.

Some of the study's limitations may worry future researchers. For example, the research is restricted to data on property indices, bonds, stocks, loan interest rates, and gold prices. As a result, the research results may not be as reliable when applied to a larger

population or area of study. Another limitation is the research period from 2019 to 2022. The variables in the study are also limited to gold, bonds, stocks, loan interest rates, and property investment.

To ensure that the research data is more diverse, researchers are advised to expand the scope of the study by including other, more varied industries in the future. Also expand the scope of additional research factors, as this may provide a better understanding of how these variables affect property investment. Other recommendations include including the variables of economic growth, regulation, and investment risk.

## REFERENCES

- Ahmeti, I., & Lecaj, M. (2023). Property right under the Ottoman legal taxation system. *Journal of Governance & Regulation*, 12(1), 33–41. <https://doi.org/10.22495/jgrv12i1art3>
- Alafif, Hamdin Ahmed. (2023). Interest Rate and Some of Its Applications. *Journal of Applied Mathematics and Physics*, Vol. 11, No.6.
- Al-Matari, E. M., Mgamal, M. H., Senan, N. A. M., Kamardin, H., & Alruwaili, T. F. (2023). Fintech and financial sector performance in Saudi Arabia: An empirical study. *Journal of Governance & Regulation*, 12(2), 43–65. <https://doi.org/10.22495/jgrv12i2art5>
- Al-Rimawi, M. A., & Kaddumi, T. A. (2021). Factors affecting stock market index volatility: Empirical study. *Journal of Governance & Regulation*, 10(3), 169–176. <https://doi.org/10.22495/jgrv10i3art15>
- Alshammari, A. A., Altarturi, B., & Saiti, B. (2020). The impact of exchange rate, oil price and gold price on the Kuwaiti stock market: a wavelet analysis. *The European Journal of Comparative Economics*, 17(1), 31-54.
- Antwi, I. F., Carvalho, C., & Carmo, C. (2021). Corporate governance and firm performance in the emerging market: A review of the empirical literature. *Journal of Governance & Regulation*, 10(1), 96-111. <https://doi.org/10.22495/jgrv10i1art10>
- Bansal, M., Ali, A., & Choudhary, B. (2021). Real earnings management and stock returns: moderating role of cross-sectional effects. *Asian Journal of Accounting Research*, Volume 6, Issue 3.
- Bisnis.com. (2021). Sluggish Property & Real Estate Sector, What Stocks Are Still OK?. Retrieved from <https://market.bisnis.com/read/20210530/189/1399424/sektor-properti-real-estat-loyo-saham-apa-yang-masih-oke>
- Bisnis.com. (2022). The growth of the property sector is considered important for Indonesia's GDP. Retrieved from <https://ekonomi.bisnis.com/read/20220729/47/1560827/pertumbuhan-sektor-properti-dinilai-penting-terhadap-pdb-indonesia>
- Burton M. (2003). The Efficient Market Hypothesis and its Critics. *Journal of Economic Perspectives*, Vol. 17, No. 1, pp. 59-82.
- Choudhry, T., Syed, S., & Hassan, S. S. (2015). Relationship between gold and stock markets during the global financial crisis: Evidence from nonlinear causality tests. *International Review of Financial Analysis*, 269.
- Dahal, R. K., Ghimire, B., Rai, B., & Shahi, B. J. (2023). Customer's perspective on non-financial performance metrics of telecommunication companies: The

- emerging market case. *Journal of Governance & Regulation*, 12(2), 8–18. <https://doi.org/10.22495/jgrv12i2art1>
- Eichler, Ryan. (2024). What Are Shares? How They Compare to Stocks. Retrieved on <https://www.investopedia.com/terms/s/shares.asp>
- Fadilah, K., &Fazizah, A. (2023). The Influence of Gold Price Fluctuations, Promotions, and Investment Risks on Public Interest in Gold Savings Products. *JurnalEkonomi, Bisnis Dan Manajemen*, 2(3), 164-175.
- Fera, P., & Salzillo, G. (2021). Earnings quality and the cost of debt for SMEs under severe information asymmetry. *Journal of Governance & Regulation*, 10(3), 128–139. <https://doi.org/10.22495/jgrv10i3art11>
- Hepsen, A. & Vatansever, M. (2012). Relationship between Residential Property Price Index and Macroeconomic Indicators in Dubai Housing Market. *International Journal of Strategic Property Management*, 16(1), 71-84.
- Ho, S. Y., &Iyke, B. N. (2017). Determinants of stock market development: A review of the literature. *Studies in Economics and Finance*, 34(1), 143–164. <https://doi.org/10.1108/SEF-05-2016-0111>
- Inesencia, A. (2020). Factors that Influence the Purchase of a Luxury Apartment, The Stature Jakarta. *JurnalManajemenBisnis Dan Kewirausahaan*, 4(6), 303-308.
- Kaklauskas, A.; Zavadskas, E. K. (2009). Theories of investment in property: use of information, knowledge and intelligent technologies. *Economics for the modern built environment*. London: Taylor & Francis. ISBN 9780415454247, p. 249-268.
- Kameel, T., Al Hajaya, N., & Alqudah, M. A. (2023). The bargain purchase option: Should it be more than an option? *Journal of Governance & Regulation*, 12(1), 68–74. <https://doi.org/10.22495/jgrv12i1art6>
- Katadata.co.id. (2022). Real Estate Sector Grows 2.78% in 2021. Retrieved from <https://databoks.katadata.co.id/data-publish/2022/03/10/sektor-real-estate-tumbuh-278-pada-2021>
- Kotha, K. K., & Sahu, B. (2016). Macroeconomic factors and the Indian Stock Market: Exploring long and short run relationships. *International Journal of Economics and Financial Issues*, 6(3), 1081–1091.
- Kraiwanit, T. (2021). A multiplier of e-consumption: The study of the developing economy. *Journal of Governance & Regulation*, 10(3), 85–92. <https://doi.org/10.22495/jgrv10i3art7>
- Kumar, P. (2017). Impact of earning per share and price earnings ratio on market price of share: A study on auto sector in India. *International Journal of Research-GRANTHAALAYAH*, 5(2), 113–118. <https://doi.org/10.29121/granthaalayah.v5.i2.2017.1710>
- Le, T. H., & Chang, Y. (2011). "Dynamic relationships between the price of oil, gold and financial variables in Japan: A bounds testing approach." *Energy Economics*, 33(5), 980-985.
- Liang, Y., & McIntosh, W. (1998). "REIT style and performance." *Journal of Real Estate Portfolio Management*, 4(1), 69-78.
- Marashdeh, Z., Alomari, M. W., Aleqab, M. M., &Alqatamin, R. M. (2021). Board characteristics and firm performance: The case of Jordanian non-financial institutions. *Journal of Governance & Regulation*, 10(3), 150–159. <https://doi.org/10.22495/jgrv10i3art13>
- McKay, D. R., & Peters, D. A. (2019). Bond Basics and the Yield Curve. *PlastSurg (Oakv)*, 27(1):83-85. doi: 10.1177/2292550319830964
- Moropane, I. V., Nenzhelele, T. E., & Tshabalala, B. D. (2023). Information ethics enforcement challenges in the real estate industry: A study of the emerging economy. *Journal of Governance & Regulation*, 12(3), 61–71. <https://doi.org/10.22495/jgrv12i3art7>
- Ocbc.id. (2021). Reviewing the Bond Market Potential in 2022. Retrieved from <https://www.ocbc.id/id/article/2021/12/08/meninjau-potensi-pasar-obligasi-di-tahun-2022>
- Pradnyawati, S. O., &Widhiastuti, N. L. P. (2022). Financial Factors and Bond Ratings. *Accounting Profession Journal*,

- 4(1), 19-27.
- Pose, Andres Rodríguez., & Storper, Michael. (2019). Housing, urban growth and inequalities: The limits to deregulation and upzoning in reducing economic and spatial inequality. *International Journal of Economics*. Volume 57 Issue 2.
- Sazonov, Victor & Nikolaev, Dmitry. (2013). Theoretical aspects of investment demand for gold. *Investment Management and Financial Innovations*, 10(4-1).
- Shahwan, Y., Hamza, M., Lubad, H. K., & Khresat, O. M. (2023). Social responsibility accounting and financial performance during COVID-19: A survey of the firms listed in Amman Stock Exchange. *Journal of Governance & Regulation*, 12(1), 93–99. <https://doi.org/10.22495/jgrv12i1art9>
- Sondakh, Patricia. (2022). Definition of Bonds. Available at SSRN: <https://ssrn.com/abstract=4161372>
- Spahija, Fidane. (2016). Analysis of The Main Theories Of Interest Rates. *International Journal of Economics, Commerce, and Management*, Vol. IV, No. 6, pp. 643-658.
- Sugiharti, H., & Maula, K. A. (2019). The influence of financial literacy on students' financial management behavior. *Accounting: Journal of Accounting and Finance*, 4(2), 804-818.
- Sulong, S., Saleem, Q., & Ahmed, Z. (2018). The role of stock market development in influencing the firms performance: A study based on Pakistan stock market. *International Journal of Economics and Finance*, 10(12), 104. <https://doi.org/10.5539/ijef.v10n12p104>
- Thanapaet, W., Sutthisai, W., Soonthorn, S., Saiyaros, R., & Boonruan, S. (2023). Provincial government agency public services: An analysis of their internal competency, internal and external environment factors. *Journal of Governance & Regulation*, 12(2), 136–146. <https://doi.org/10.22495/jgrv12i2art12>
- Tran, O & Nguyen, H. (2022). The interdependence of gold, US dollar and stock market in the context of COVID-19 pandemic: an insight into analysis in Asia and Europe. *Journal of Cogent Economics & Finance*.
- Tyas, S. H. Y. (2022). Systematic Literature Review: Development of Gold Price Forecasting Methods. *Journal of Informatics and Communication Technology*, 4(1), 31-39.
- Wibowo, H., Feriska, Y., Nurdin, A. L., Apriliano, D. D., & Yunus, M. (2021). Feasibility Study of Property Investment for Griya Sengon Indah 3 Housing Development in Sengon Village, Tanjung District. *Infratech Building Journal*, 2(1), 49-55.
- Yulfiswandi, Y., Kho, C., Valentina, C., Lim, M. A., Jenny, J., & Aurellia, A. (2023). The Importance of Financial Planning and Management for the Future. *NUSANTARA*, 10(4), 1908-1914.