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Factors Influencing the Price of Gold in Malaysia

*Siti Aminah Mainal, Arina Haziqah Mohd Selamat, Nur Dinie Syafia Abd Majid, Khaliff Nabill Irfan Noorzee
Faculty of Business and Management University Teknologi MARA, Selangor, Malaysia
*stiaminah844@uitm.edu.my, arinahaziqah02@gmail.com, diniesyafia01@gmail.com

Abstract: Despite price increases, gold, a valuable and precious metal, has been used as real estate and financial assets. The price of gold keeps rising over the long term, but it is quite fluctuating and volatile over the short term. Investors will turn to gold as a backup investment during a financial crisis because gold may be used as a hedge against inflation. In addition, investors will swarm to the gold market as a hedge against uncertainty during an uncertain economic climate. Before, during, and after the financial crisis, it is unknown what variables in particular affected the price of gold. The main objective of this research is to assess the determinants that are influencing the price of gold in Malaysia. The secondary data is collected to measure the relationship and fluctuation of gold prices, the data collected is quarterly from 2005–2021. This paper uses descriptive statistical analysis for the description of data, coefficient matrix analysis and regression analysis for determining the impact of dependent and independent variables. In this research paper, gross domestic product (GDP), inflation rate (IR), interest rate (IR), unemployment rate (UR), and exchange rate (ER) are included in macroeconomic indicators and considered as independent variables. The gold price is considered a dependent variable.

Keywords: *Gold Price, Gross Domestic Product, Inflation Rate, Interest Rate, Unemployment Rate, Malaysia.*

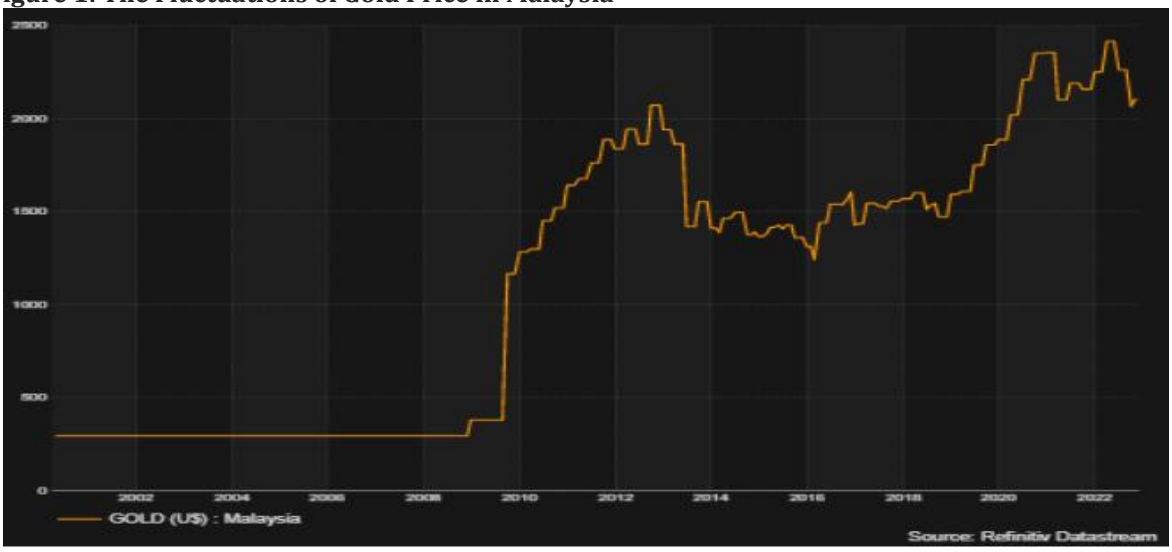
1. Introduction and Background

The definition of gold stated by Thaver and Lopez (2016) indicates that gold works as a security asset in a short period of market disturbance. Gold is needed by everyone due to its function in value reserve. Therefore, everyone can also use gold as their investment instrument to expand their profit in the future (Dalam et al., 2019). Gold can also be explained as a precious item that becomes our asset and possessions (Md Hashim, 2022). The gold is in yellow, its structure is fine, secured from any erosion and easily pliable and it is reported in the past study by Md Hashim (2022).

There are various importance of gold and one of them is that it helps in preventing any loss in the stock market. Thaver and Lopez (2016) said if someone gets a lower return from the investment, it will help in raising the return on gold investment. Gold is really important as it can retain purchasing power in society (Dalam et al., 2019). This will make it easy to buy any goods as they also have other savings which is gold. People use gold in their trading activity to increase their financial gain. Md Isa et al. (2020) have said people will buy gold at a small price and sell it at a bigger price and gold also has high liquidity.

Another reason Malaysian people use gold is that it can be worn as accessories due to its beauty, sparkle and also it is long-lasting. Md Hashim (2022) has conveyed that gold is liked by everyone as it can be turned into jewelry. Other than that, the strategies made by the United States to utilize gold are by letting the investors buy gold when the currency of the USD is falling. It will make people want to purchase more gold which gives rise to the price of gold (Liya et al., 2021). Furthermore, United States Crises that have increased the price of gold will make other countries demand gold such as China, India and more (Dalam et al., 2019). Despite all of the importance and advantages of using gold, some issues or problems can be highlighted in terms of its price. According to the figure below, we can see the fluctuations of gold prices in Malaysia that show increments and prices falling from 2009 until 2022. Therefore, there is instability in terms of gold prices.

Figure 1: The Fluctuations of Gold Price in Malaysia



Thus, a need to investigate the causes of this fluctuation and the relationship between the factors and the price of gold. According to Liya et al. (2021), the unsteadiness of gold prices is the consequence of macroeconomic measures.

The concern regarding the instability of gold price is the price of gold that uses the currency of USD will have implications for other countries' gold prices. The high amount of interest rate will make the USD currency lower and this will increase the price of gold (Dalam et al., 2019). Other researchers also said the seriousness of this problem is when the gold price keeps on rising in the long term but still fluctuates in the short term (Md Hashim, 2022). Then, this fluctuation will result in bad implications for investors as the price of gold keeps on changing by day or hours (Md Isa et al., 2020).

The unfavorable implications on the issue if left unattended will cause the upcoming gold price can be reduced under the amount of RM6,576 for 12 ounces (Md Hashim, 2022). He also indicates that the price of gold may fall suddenly but still fluctuate until the present. Based on the issue of the gold price that keeps on fluctuating, Liya et al. (2021) have researched that gold reserve and energy outputs' prices are the factors affecting the price of gold. They have noticed that the gold reserves and energy products have a positive relationship with the gold price. Md Hashim (2022)said that there is a positive effect on the prices of oil and the price of gold.

There is a research gap where the information regarding certain factors influencing the prices of gold is not investigated thoroughly. For instance, the high price of gold can be the reason for high inflation (Apergis et al., 2019). However, it is not explained clearly whether the inflation rate can affect the fluctuation of the price of gold. Next, the result of the exchange rate towards the price of gold is also one of the heated issues and needs the help of economists and authorities to solve it (Long et al., 2022). However, there are unclear actions taken by them to solve the problem of fluctuations in gold price.

Zakaria et al. (2015) also conveyed that few macroeconomic indicators influenced the rising and falling of gold prices. Hence, the unemployment rate and gross domestic product can also be the factors that may influence gold price fluctuations. There is also a limited amount of good policy by authorities related to the right interest rate level that can make the gold price fluctuate even more (Md Hashim, 2022). Thus, we decided to search for the effect of interest rates on the fluctuations in the price of gold.

The controversies in the literature that this study intends to address are the amount of uncertainty and instability in the factors influencing the fluctuations of the gold price (Apergis et al., 2019). The limitations of past studies are there is a small amount of data (Liya et al., 2021). Other than that, there is a study that said that quarterly data is not good enough to forecast the price of gold (Sun, 2018). Therefore, in this study,

quarterly data is used for this research and decided to use lots of data to reduce the amount of error which subsequently will show the result on how the factors influence gold price.

New academic knowledge that this research work can offer is to show the relationship of the inflation rate, interest rate, unemployment rate, gross domestic product and exchange rate with the fluctuation of gold price. This study will assist the investors out there to know the right time to invest in gold by using guidelines in this research. This is because investors always conduct their trading during financial problems and unpredictability times (Beckmann et al., 2017). Henceforth, the results will show the most significant factor that causes fluctuations in gold price.

The decline in the price of gold has begun to instill apprehension in numerous individuals, including investors. Due to its demand, gold has become popular among people around the world. It is undeniable that gold gained more popularity and surging prices during the financial crisis as gold itself is an inflation hedge and reacts positively to adverse market shocks (Zizun, 2017). Therefore, gold can remain a popular commodity and investment from developed countries. According to the World Gold Council, the one who has been leading in the production of gold is China which has mine production of up to 370 metric tons (MT) in 2021. Then, followed by countries such as Australia, Russia, the United States, Canada, Ghana, Mexico, and Indonesia. However, the gold price started to get unstable. As investors are looking for safe haven investments to make sure that they will not be involved in economic uncertainty, they tend to choose something more valid and strong. Most investors started to use gold as their investment due to the demand and it tends to go up in value when other assets go down such as stocks and bonds. Due to the uncertain ups and downs of the gold price, some investors no longer think that gold can be kept as their safe haven investment to protect them from risk (Zizun, 2017). Hence, as gold prices change in Malaysia can be due to a few factors, therefore, this paper will discuss the factors that affect gold prices in Malaysia and find the most related factors to changes in gold prices.

This study will also see the uncertainty in all the factors that may result in showing why there are various implications for the price of gold (Beckmann et al., 2017). Thereby, this study will answer the research objective which is to investigate the relationship between gross domestic product, inflation rate, unemployment rate, exchange rate and interest rate towards the price of gold.

2. Literature Review

The applicability of the pricing models in the context of international finance, particularly at the aggregate country level, where risk is defined relative to a world or global market factor and/or to other international or global factors, is a key theme of the contemporary asset pricing literature. Refining the model in a way that includes more "risk" factors is one potential solution to this issue. Investors are presumed to be able to create portfolios that guard against uncertainties in state variables in (Merton, 1973) intertemporal CAPM (ICAPM). In the past, investors have turned to gold as a form of financial insurance against inflation and unstable political conditions. In light of this, a gold price factor is a good contender to serve as a hedging component in the ICAPM. As a result, the main goal of the current work was to evaluate whether global industry equity returns were exposed to a gold price element in addition to their exposure to global market returns. The analysis was also expanded to include the international two-factor ICAPM that resulted from multivariate asset pricing experiments. This study investigated the gross domestic product, inflation rate, interest rate, unemployment rate and exchange rate as determinants of the price of gold.

Gross Domestic Product (GDP): Gross domestic product or GDP is the sum of the cost of finished goods and services. A high gross domestic product indicates a good economy, whereas a low gross domestic product indicates a weak economy (Jason Fernando, 2023). Gross domestic product plays an important role in determining the price of gold in Malaysia. Based on the previous study that was carried out by Dalam et al. (2019), it was found that there is a direct relationship between gross domestic product (GDP) and the gold price in Malaysia. Md Hashim (2022) mentioned in her study that macroeconomic variables such as GDP should be included in future research. Dalam et al. (2019) conclude the price of gold increases as GDP increases. Based on the quarterly data from 2005 to 2021 that were obtained from the software of Eikon Thomson Reuters, it shows an increase from year to year but it is still unsure whether GDP can create a

positive relationship between the price of gold or not. Drawing from the propositions and results revealed in past studies, this study hypotheses the relationship between gross domestic product and gold price, as follows:

Null Hypothesis (HO_1): There is no relationship between the gross domestic product and the gold price.
Alternate Hypothesis ($H1_1$): There is a relationship between the gross domestic product and the gold price.

Inflation Rate: Inflation is the rate at which prices grow over a specified time period. Inflation is generally defined in broad terms, such as the total increase in prices or the growth in a country's cost of living. While excessive inflation is detrimental to an economy, deflation, or declining prices, is also undesirable. When prices decline, customers postpone purchases if possible, anticipating further price reductions (Ceyda Oner, 2012). Gold prices have attracted considerable attention for their potential effect on inflation. Like other assets that are found to predict inflation behavior because their returns embed inflation expectations, gold prices can also serve as a leading indicator of inflation. This argument has been put forward by many researchers based on the failure of some financial assets to predict the behavior of inflation over a longer period of time (see, for instance, (Stock & Watson, 1999; Cecchetti et al., 2000; Banerjee & Marcellino, 2006; Boivin & Ng, 2006).

Null Hypothesis (HO_2): There is no relationship between the inflation rate (INFR) and the price of gold.
Alternate Hypothesis ($H1_2$): There is a relationship between the inflation rate (INFR) and the price of gold.

Interest Rate: Interest rates refer to the amount being charged by the borrower to the lender in addition to the principal amount. Interest rates are one of the factors influencing the price of gold. Generally, if interest rates are higher, the price of goods will fall. Apergis et al. (2019) examined the relationship between interest rates and gold prices. It indicated from this examination the results from this study were found to have a negative and significant relationship between the real interest rates and gold price. Another research was conducted by Md Isa et al. (2020) on the relationship between interest rates and gold prices. The study was carried out using monthly data from 2014 to 2018 to focus on macroeconomic variables that affect the gold price in Malaysia. The result of the study was found that interest rates have a significant negative effect on gold prices but other variables such as the inflation rate, crude oil price, and the exchange rate have a significant positive relationship toward the gold price in Malaysia. It was measured by Pearson Correlation and Multiple Linear Regression tests to establish whether there were any significant correlations or any impacts between the independent variable and dependent variable. This could be supported by other research in past studies by Bülent et al. (2011), Zakaria et al. (2015), and Laily et al. (2017).

Null Hypothesis (HO_3): There is no relationship between interest rate and price of gold.
Alternative Hypothesis ($H1_3$): There is a relationship between interest rate and price of gold.

Unemployment Rate: The definition of unemployment is when someone is looking for a job but is incapable of discovering the work (Adam Hayes, 2023). Unemployment can be an indicator of the well-being of the economy. According to Liya et al. (2021), the unemployment rate can be one of the factors influencing the price of gold. Therefore, the unemployment rate is the independent variable that affects the price of gold as the dependent variable. Past study has shown that there will be a relationship between macroeconomic measurements on the gold price (Liya et al., 2021). According to the historical perspective in terms of unemployment development studied by Pachiyappan (2022), changes of 1% in the unemployment rate in the United States of America will increase the gold price by 4.7%. In Malaysia, the unemployment rate will keep on increasing from 2019 until 2021 which is 3.26%, 4.50% and 4.61% respectively (WORLD BANK GROUP, 2023).

Null Hypothesis (HO_4): There is no relationship between the unemployment rate and the gold price.
Alternate Hypothesis ($H1_4$): There is a relationship between the unemployment rate and the gold price.

Exchange Rate: The exchange rate simply brings the meaning of the price of one currency in terms of another currency. By using an exchange rate, each currency is worth a specific measure of metal or other standard items. The exchange rate is fixed and can't be changed easily as it involves other countries. The use

of the exchange rate is mainly to measure the buying power of a currency toward another currency. The past study (Bülent et al., 2011) mentioned that oil prices and the exchange rate is the most significant that affect gold price positively and negatively correspondingly. Therefore, the US dollar and gold prices correlate with each other. As gold prices are denominated in the US dollar, it can be indicated that the US dollar influences the gold prices (Sujit & Rajesh Kumar, 2011). Thus, the exchange rate can be considered as one of the measurements that can be used to see changes in gold prices.

Null Hypothesis (HO_5): There is no relationship between the exchange rate and the gold price.
Alternate Hypothesis ($H1_5$): There is a relationship between the exchange rate and the gold price.

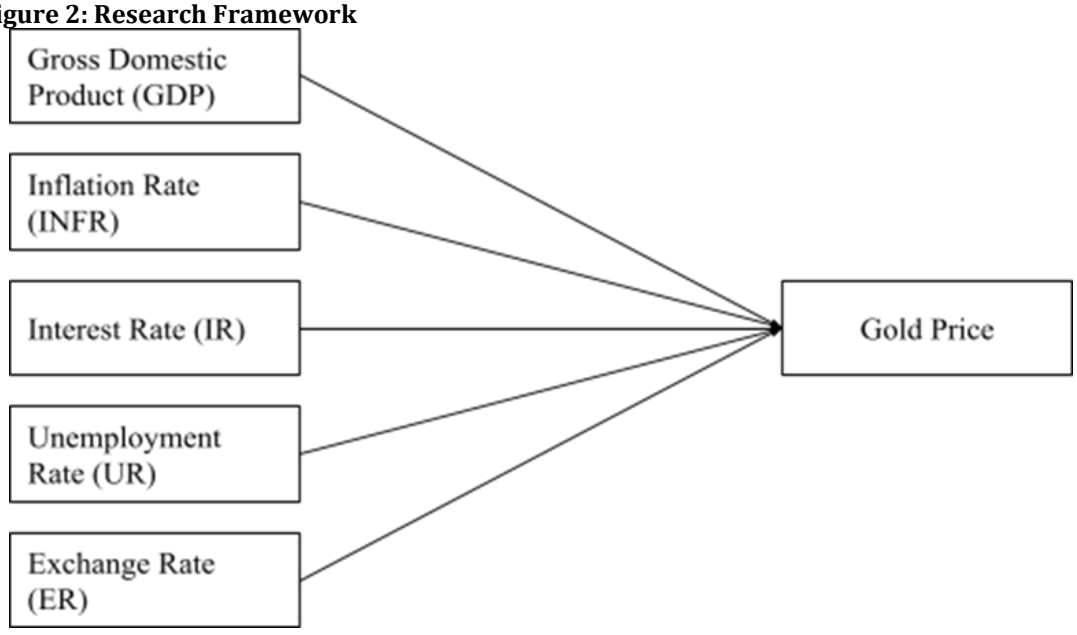
3. Research Methodology

In this study, secondary data is used to collect all macroeconomic indicators data. In this study, the research will examine the relationship between gold prices (GP) and inflation in Malaysia. The sources of data used throughout this research include Bank Negara Malaysia (BNM), The World Bank and the Department of Statistics Malaysia (DOSM). Precisely, all of the data ranged from 1991 to 2021, which are 30 samples of year in total.

A total of 124 quarterly gold prices in USD were issued throughout the study period. However, not all gold prices (GP) were included in the final sample after several selection processes. The nature of the data is quantitative and is based on secondary form. For this purpose, different independent variables of gold price management macroeconomic factors are used, including GDP, INFR, IR, UR, and ER, and measured their impact on gold prices. The gold price is considered reliant on variables, and all the macroeconomic factors are independent variables. This study is based on a quantitative method. After the filtering and selection processes, 56 quarterly gold prices (GP) were excluded, leaving only 68 quarterly gold prices (GP) in the final sample of this study for estimation via regression model. This research is made by using time-series data starting from the initial year of 2005 to 2021. The reason for choosing data from the year 2005 is because the full data for all independent variables are only available from that current year. Then, the regression analysis was conducted using the EViews platform.

Figure 2 below shows the relationship between independent variables and dependent variables. There are five independent variables in this study which are gross domestic product (GDP), inflation rate (INFR), interest rate (IR), unemployment rate (UR) and exchange rate (ER). The dependent variable in this study is gold price.

Figure 2: Research Framework



Before the analysis of the multiple regression model, two preliminary tests were performed which were descriptive statistics analysis and correlation coefficient analysis. This was followed by statistical tests in the regression analysis such as the T-test and F-test were conducted and the R-squared and Adjusted R-squared were then determined.

4. Results

This section discusses descriptive statistics analysis, correlations, variance inflation factor, and multiple regression results.

Table 1: Descriptive Statistics

	Price of Gold	Gross Domestic Product (GDP)	Inflation Rate	Interest Rate	Unemployment Rate	Exchange Rate
Mean	1.28B	75.53B	2.200	2.897	3.433	3.681
Median	1.47B	74.14B	2.178	3.000	3.333	3.677
Maximum	235.17M	102.38B	8.434	3.500	4.967	4.485
Minimum	293.23M	50.49B	-2.563	1.750	2.700	3.018
Std Dev	659.90M	16.20B	1.766	0.522	0.502	0.447
Skewness	-0.479	0.094	0.032	-1.035	1.611	0.088
Kurtosis	1.915	1.624	5.125	3.052	5.143	1.580
Jarque-Bera	5.937	5.462	12.811	12.158	42.418	5.802
Probability	0.051	0.065	0.002	0.002	6.153	0.055
Sum	87.66B	513.65B	149.594	197.003	233.433	250.301
Sum of Sq. Dev	2.918	1.758	208.896	18.260	16.874	13.381
Observations	68	68	68	68	68	68

Descriptive Statistics: Table 1 shows the result of descriptive analysis for each variable which consists of Gold Price as the dependent variable against the independent variables that consist of gross domestic product (GDP), inflation rate (INFR), interest rate (IR), unemployment rate (UR), and exchange rate (ER).

The mean value of GDP can be seen as close as $75.53 billion to its median value of 25 $74.14 billion. Therefore, GDP is normal data based on the rule of thumb. The skewness of GDP is positively skewed since the value from the table above is more than 0 which is 0.09. While kurtosis is negative kurtosis since the values are below 3 which is 1.62. Hence, GDP is at leptokurtic distribution. The mean value of the inflation rate can be seen as close to 2.20 to its median value of 2.17. Therefore, the inflation rate is normal data based on the rule of thumb. The mean value of interest rate can be seen as close as 2.89 to its median value of 3. The mean value of the unemployment rate can be seen as close to 3.43 to its median value of 3.33. The mean value of the exchange rate can be seen as close as 3.68 to its median value of 3.67. Therefore, the exchange rate is normal data based on the rule of thumb. The exchange rate skewness is 0.088. It shows it has positively skewed distributions.

Table 2: Correlation

Variables	Price of Gold	GDP	Inflation Rate	Interest Rate	Unemployment Rate	Exchange Rate
Price of Gold	1					
GDP	**0.766**	1				
Inflation Rate	-0.413	-0.328	1			
Interest Rate	-0.419	-0.216	0.411	1		

Unemployment Rate	0.245	0.300	-0.345	**-0.740**	1	
Exchange Rate	0.243	0.693	-0.159	-0.131	0.445	1

Correlation: Based on the results of the correlation using data from 2005 until 2021, there is no severe multicollinearity issue since all the values between the two variables do not exceed 0.9. Based on the table above, the result is close to 0.9 showing the relationship between the price of gold and gross domestic product (GDP) with a correlation value of 0.765543. Another result that is close to -0.9 based on the results is the relationship between interest rate and unemployment rate with a correlation value of -0.740258. Therefore, to confirm whether there is a severe multicollinearity issue between two variables in this model, this study conducts a variance inflation factor (VIF).

Table 3: Variance Inflation Factor

Variables	Coefficient Variance	Uncentred VIF	Centered VIF
Gross Domestic Product (GDP)	0.000	52.236	**2.265**
Inflation Rate	3845262.400	3.389	**1.316**
Interest Rate	1.361	90.565	**2.808**
Unemployment Rate	1.698	156.940	**3.237**
Exchange Rate	1.794	189.440	**2.712**
C	4.055	311.466	NA

Variance Inflation Factor: Based on the variance inflation factors (VIF) result in this study, we have found out that all the independent variables scored less than five where the result for the gross domestic product (GDP) is 2.2648, the inflation rate is 1.3158, the interest rate is 2.8077, the unemployment rate is 3.2366 and lastly, the exchange rate is 2.7120. Since the results of variance inflation factors 29 (VIF) for all five independent variables is less than five, it is now confirmed that there is no severe multicollinearity issue and they are valid to remain in this model. Therefore, all independent variables can be included in the regression model.

Table 4: Multiple Regression

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP_LOG	3.572858	0.33149	10.77819	0.0000
Inflation Rate	-0.03193	0.029079	-1.098059	0.2764
Interest Rate	-0.547422	0.213045	-2.569511	0.0126
Unemployment Rate	-0.419532	0.201272	-2.084408	0.0412
Exchange Rate	-0.638744	0.206093	-3.0993	0.0029
Constant	-63.2052	8.271443	-7.641375	0.0000
R-squared	**0.860598**			
Adjusted R-squared	**0.849356**			
Prob (F-statistic)	**0.000000**			

Multiple Regression: Based on Table 4, F-Statistics is to determine whether the regression model gives a better fit to the data or not. The F-Statistics is related to the p-value to investigate whether the data is significant or not. In this case, the significance level or p-value is 0.05. According to the table above, the F-Statistic is 0 which is below 0.05. Therefore, it indicates that the model is significant and fit to the data. Thus, the null hypothesis, which is that there is no relationship between the independent variables and dependent variables has to be rejected. After checking on the F-statistic value, the next is to check on the adjusted R-

squared value. Adjusted R-squared basically is a modified version of R-squared where it can determine the proportion of variance in the target field explained by the input or inputs.

In every regression model, the adjusted R-squared value is always less than the R-squared value (Ryan Eichler, 2023). If the value of the adjusted R-squared is 1, it indicates that the model perfectly predicts the target field. But if the value is less than or equal to 0, it indicates that the model is not significant at all and has no predictive value coming out from the model. Therefore, based on this case, the adjusted R-squared value is at 0.8493. It indicates that five of the independent variables in this model, which are GDP, inflation rate, interest rate, unemployment rate, and exchange rate can explain 84.93% of the variation in the dependent variable. The remaining 15.07% should be explained by other independent variables that are not included in this study.

Next, the probability of each variable depends on the p-value where it is an option to reject points that give the lowest significance level so the null hypothesis can be rejected (Brian Beers, 2023). In this section, the focus will be on confidence interval and significance level. The confidence interval shows the precision of measurement. There are many confidence intervals such as 90%, 95% and 99%. However, significance level is a term on how willing to be wrong. For example, if there is a 95% confidence level, you are likely to have another 5% or 0.05 possibility to be false. If there is a 90% confidence level, it means there will be another 10% or 0.10 possibility to be false. A 99% confidence level indicates that there is a 1% or 0.01 chance of being wrong.

Therefore, based on this regression, it was found that the probability for Gross Domestic Product is 0. In this case, the p-value is less than 0.01 so the result is statistically significant as it only has a 1% possibility of error. It is also equal to a 99% confidence level. Next, the probability for inflation rate is 0.2764 which is more than 0.05. It means the data is insignificant as it has a high chances of error. Furthermore, the p-value for interest rate is 0.0126 which is lower than 0.05 but higher than 0.01. It shows that the confidence level is at 95%. Then, the probability for the unemployment rate is 0.0412. The acceptance significance level is 0.05 with a 95% confidence level. Lastly, the p-value for the exchange rate is 0.0029 which is less than 0.01. The result is significant at a 99% confidence level.

Lastly, is to check on the coefficient, which explains the measure of the relative dispersion of data in a data series around the mean. It can be used to compare the degree of variation from one data series to another. To analyze coefficients, there is a need to look at the positive and negative of the value. Based on this case, only the GDP value is positive, while the other independent variables, which are the inflation rate, interest rate, unemployment rate, and exchange rate, are negative. It indicates that GDP value is the only independent variable that is significant and that it is positively related to the gold price at a 99% confidence level. Thus, if there is a 1-unit change in GDP, it will increase the gold price by 3.57%. However, for other independent variables that are negatively related, which is the inflation rate, if there is a 1 unit change in the inflation rate, it will decrease the gold price by 0.03%. Meanwhile, if there is a 1 unit change in interest rate, it will decrease gold price by 0.55%. If there is a 1 unit change in the unemployment rate, it will decrease the gold price by 0.42%. Lastly, if there is a 1 unit change in the exchange rate, it will decrease gold price by 0.64%.

Table 5: Regression Results Summary

Independent Variable	Hypotheses (+/-)	Result (Significant/ Insignificant)	Confidence Level (%)	Support to Hypotheses (Null/ Alternate)
GDP	Positive	Significant	99	Alternate
Inflation Rate	Negative	Insignificant	-	Null
Interest Rate	Negative	Significant	95	Alternate
Unemployment Rate	Negative	Significant	95	Alternate
Exchange Rate	Negative	Significant	99	Alternate

Discussion: Based on Table 4 and Table 5 on Multiple Regression and Regression Results Summary, the p-value of Gross Domestic Product is 0, so it shows that the GDP has a highly significant influence on the price of gold in Malaysia due to the threshold value at 0.01. Thus, the GDP has a confidence level of 99%. Next, based

on the coefficient shown in the regression model, only GDP is proven to be positively related to gold price. It indicates that a 1 unit change in GDP will increase by 3.57% of the gold price. Hence, the hypothesis statement can be supported. This can relate to the past study made by Dalam et al. (2019) where the gold prices will increase if the gross domestic product rises too. They have confirmed that there is a direct proportional connection between GDP and the gold price in Malaysia. This result is consistent with their study and has answered the research question which is "How does a GDP affect gold price in Malaysia?". It means to reject the null hypothesis that says there is no relationship between the gross domestic product and the gold price. Therefore, the study accepts the alternate hypothesis where there is a relationship between gross domestic product and gold price.

According to the probability at 0.2764, it indicates that the inflation rate is insignificant towards the price of gold because the value is more than 0.05. Thus, it does not have a high confidence level due to many possibilities of errors. While the coefficient of the inflation rate is negatively related to the gold price. This means that a one-unit change in the inflation rate reduces the gold price by 0.03%. This is a sign of insignificant value. Thus, the hypothesis statement cannot be supported. This is inconsistent with the past study made by Dalam et al. (2019), it is because they said that the inflation rate has a positive relationship with the price of gold. It means inflation will always increase the price of gold. Dalam et al. (2019) also confirmed that even though inflation has a positive relationship with gold, it is still insignificant. Thus, this study accepts the null hypothesis where there is no relationship between the inflation rate and the gold price. Therefore, this study rejects the alternate hypothesis of a relationship between the inflation rate and the gold price.

Next, the probability of interest rate is less than 0.05 with an amount of 0.0126. It specifies that the independent variable is significant in giving impact towards the gold price. Then, it has a confidence level of 95% which is a bit lower than GDP. Besides that, the coefficient of interest rate is also negatively related to the gold price, hence it is significant. This indicates that a 1 unit change in interest rate will decrease by 0.55% of gold price. As in the alternate hypothesis mentioned whether there is a relationship between interest rate and gold price, it can be said that there is a relationship between both of them. Thus, this study accepts the alternate hypothesis. Referring to the past study by Md Isa et al. (2020), it can support the analysis in this case as it also has a negative relationship between interest rate and gold price. This can be seen from the coefficient result on the regression model used.

With regards to the unemployment rate, the p-value of the unemployment rate is 0.0412 which is lower than the threshold of 0.05. It shows that the unemployment rate has a significant influence on the price of gold. It has a 95% confidence level too. Not only is that, but the coefficient of the unemployment rate also negatively related. It means that a 1-unit change in the unemployment rate reduces the gold price by 0.42%. Compared to the past study by Liya et al. (2021), it stated that the unemployment rate is positively related to the gold price. However, this study shows that the unemployment rate is negatively related to the gold price. As it is significant and negatively related, this study accepts the alternate hypothesis that states there is a relationship between the unemployment rate and the gold price.

Next, the exchange rate indicates 0.0029 probability which is less than 0.05 and 0.01. It only has a 1% error that makes it have a 99% confidence level like GDP. It means it is significant in influencing the gold price. Lastly, the exchange rate value is also shown as negatively related. It indicates that a 1 unit change in the exchange rate will decrease 0.64% of gold price. If the exchange rate decreases, there will be a rise in the currency of the Malaysia Ringgit which will lead to a rise in gold price. When the Malaysian currency increases, it will attract the investor and result in higher returns in the gold market. The analysis above can be supported by the research done by Md Hashim (2022) which says that there is a negative relationship between exchange rate and gold price. According to the coefficient result, it proves that exchange rates are negatively related to the gold price. Thus, this study accepts the alternate hypothesis where there is a relationship between the exchange rate and gold price.

5. Implications and Recommendations

This study will help the investor to know the factors that affect the price of gold in Malaysia. It is because

whenever the investor wants to invest in gold, they will seek the factors that would affect the gold. Based on the findings, this study enables us to show the significant factors that have an impact on gold prices. Interest rates, GDP, exchange rate, and unemployment rates were found to be factors that affected the gold price in Malaysia. It will become the guideline, especially for the investor to monitor all of the factors before making the investment decision. This is to ensure the investor is more alert to the changes in the gold price. It also could help the investors avoid any chances of suffering losses and make the right time to invest in gold. Therefore, the investor must consider all of these factors and be cautious with the changes of it.

This study will also give an advantage to the government because they are the ones who hold a large amount of gold reserves to ensure the country's stable currency. The local currency will be affected by lowering the interest rates to ensure there are a lot of investors who will become attracted to make investments in gold in Malaysia. The financial system and economy in Malaysia will be guaranteed to stabilize when the central banks play their roles. A high gold reserve will also save the currency of the country since it is related to each other. Further, government budgets and fiscal policies can be impacted by gold prices. If gold prices are high, countries with significant gold reserves may see an increase in their overall wealth. This can influence government spending decisions and the management of their reserves.

The findings in this study will help consumers gain better insight into the factors that make the price of gold change from year to year such as gross domestic product (GDP), inflation rate, interest rate, unemployment rate and exchange rate. Based on the findings, the rising of interest rates will make the cost of borrowing increase. Due to that, the demand for gold will decrease causing the price of gold to fall. When the price of gold falls, it is an opportunity for the consumers to decide to buy gold as adornment or investment so that they can use gold as financial protection if there is a sudden economic and financial crisis in the future. This study will help consumers make better decisions to buy gold at the right time.

Last but not least, this study is very useful for future researchers because it explains information in detail about the factors that influence the price of gold in Malaysia. The findings in this research will help future researchers gain more knowledge and a better understanding of the factors that are used in this research. Future researchers can take advantage by using the information in this research to include in their study. In addition, it gives some ideas for future researchers to expand the scope of their research. It is highly recommended for future researchers to add more new independent variables as there are remaining 15.07% of other independent variables that have not been explained in this study.

Conclusion: The objective of this paper was to explore the relationship between gold prices and GDP, inflation rate, interest rate, unemployment rate and exchange rate using data in Malaysia over the period from 1991 to 2021. To proceed with this study, time series data have been used. Based on the study, suitable independent variables were discovered that have the most impact on gold price through the Newey-West test. GDP value has been proven as the most significant independent variable with a positive relationship with the gold price compared to the other independent variables. Therefore, this study will help future researchers to study the factors that influence gold prices by using all the variables used in this study. In addition, by doing this research it can be concluded that the inflation rate is insignificant with the gold price due to the p-value that is more than 0.05. The other independent variables used such as interest rate, unemployment rate, and exchange rate were found to have a relationship with the gold price too. Henceforth, this study will help the investor to make a better decision in investing in gold.

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