Determinant of Forex Rolling Spot Contracts on Indonesia Commodity and Derivative Exchange (ICDX)

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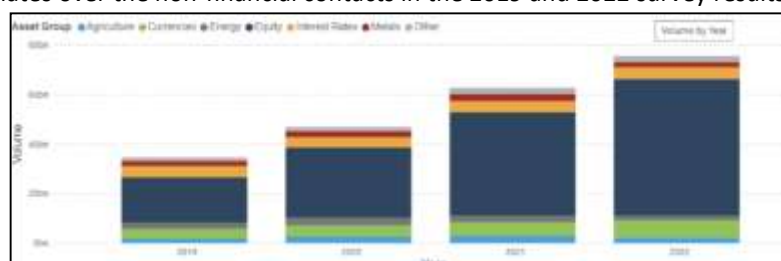[2] Indonesia Commodity and Derivative Exchange

ABSTRACT: One of the derivative futures contract types is the Forex Rolling Spot Contracts (FRSC) traded in the Indonesia Commodity and Derivatives Exchange (ICDX). So far, no research has been conducted on this product type, which can be used as an investor reference. This study aims to find empirical evidence of how far macroeconomic variables affect the returns of ten FRSC investment instruments: AUD/USD, EUR/USD, GBP/USD, USD/JPY, USD/CHF, GBP/JPY, EUR/JPY, AUD/NZD, NZD/USD, and USD/CAD traded at ICDX during the period 2021 - 2022. The statistical analysis method used in this research is quantitative with descriptive explanations. Data collection techniques were obtained from secondary data through library research. Secondary data was obtained through the internet sites of ICDX, Indonesia Stock Exchange (IDX), Bank Indonesia, London Bullion Metal Association, Bloomberg, and the US Energy Information Administration. The analytical method used in this study is panel data analysis. The study type was an explanatory study with data processing using the STATA application. The study results showed that the determinant of interest rate and inflation did not affect FRSC return; JCI return and gold price return had a significant positive on FRSC return; bond index return and crude oil price return had a negative effect on FRSC return.

KEYWORDS: Derivatives, Forex Rolling Spot Contracts, Rate of Return, Macroeconomics, ICDX

I. INTRODUCTION

The existence of derivative trading provides the possibility for several parties involved to maintain the value of their assets from the risk of loss caused by a decrease in asset value within the tolerance threshold that has been arranged (Siahaan & Manurung, 2006). Derivative trading allows hedgers and investors to choose and consider the impact of risk. They may take the risk by themselves or transfer it to other potential parties or speculators. Thus, derivatives trading has a main function as a hedging advice and investment tool with four categories: forward contract transactions, futures contract transactions, option contract transactions, and swap contract transactions. This research focuses on derivatives trading as an investment vehicle in the Indonesia Commodity and Derivatives Exchange (ICDX).

The first futures contracts traded globally are several contracts from the non-financial sector. In line with the market demand for hedging, financial futures contracts were finally traded in the futures exchange. Figure 1 illustrates that the trading volume of financial contracts dominates over the non-financial contacts in the 2019 and 2022 survey results.

Picture 1

Source: Future Industry Association

One derivative contract type developed in Indonesia is a futures contract. According to Hull (2012), a futures contract is an agreement to buy/sell an asset at a fixed price and time in the future. There are two types of trading mechanisms of futures contract transactions in Indonesia, namely transactions on the futures exchange (on exchange) carried out by many sellers and

many buyers (multilateral) and transactions outside the futures exchange or over the counter (OTC) carried out by two parties, namely traders and customers (bilateral).

Along with the development of futures instruments, there is a type of Forex Rolling Spot Contract investment in global trading. According to the Financial Conduct Authority handbook, the definition of a Forex Rolling Spot Contract is one of the following: (a) a futures contract, whether or not it is traded or declared as traded on a recognized investment exchange, where the property to sell under the contract is foreign exchange; or (b) a Contract for Different (CFD) whereby a profit is secured, or a loss is avoided by reference to fluctuations in a foreign currency; and in both that cases, the contract was made for speculation purposes. Initially, rolling spot contracts or CFD investment products only existed for foreign exchange currency products, then developed into many products such as gold, crude oil, stocks, stock indices, etc.

In Indonesia, Forex Rolling Spot Contracts (FRSC) are popular as one type of contract traded at ICDX. FRSC is a type of contract where the price offered is the current daily price (spot price), not the price of a specific period in the future (the forward price). Also, it does not have a maturity date like a general futures contract. Every day FRSC will be extended automatically until the contract is closed. Thus, FRSC can be applied easily for hedging and investment purposes.

Forex Rolling Spot Contracts traded on the exchange only exist in Indonesia. Usually, FRSC is traded on Over the Counter – OTC (off-exchange). However, since the exchange price is more transparent, reasonable, and fair than on OTC, ICDX trades FRSC on the exchange. Therefore, this novel research refers to any similar topics with this research as a journal reference.

II. LITERATURE REVIEW

The financial theory argues that many factors affect financial markets and asset prices, including macro, and micro variables and unexpected events. Investors can invest in many alternative instruments such as futures contracts, namely the Forex Rolling Spot Contract (FRSC). This type of instrument only exists in Indonesia, regulated in Law Number 10 of 2011 concerning Commodity Futures Trading.

2.1 The Futures Exchange

The Futures Exchange is a meeting place between sellers and buyers to trade derivative contracts, especially futures contracts., Future contract prices are transparent, reasonable, and fair since it comes from the offers of many buyers and sellers. One of the futures exchanges in Indonesia is ICDX which has two types of trading mechanisms: inside the futures exchange, known as multilateral transactions, and outside the futures exchange (OTC), known as bilateral transactions. Forex Rolling Spot (FRSC) traded on the exchange and OTC.

2.2 Investment

Investment is a form of placing funds activity in one type of asset accompanied by maturity to earn profit and increase the investment value in the future (Azis, 2010). Quoting Setiawan (2015), investment is divided into two sectors: investment in the real sector and investment in the non-real sector. The real sector is a sector that can be seen physically, such as the production and property sectors. In contrast, the non-real sector is an investment sector that is not physically visible such as financial market products, stocks, or bonds. Long-term capital investment can be in the form of capital, debt, and equity for the procurement of fixed assets, promotion, or permanent working capital. According to Fatihudin (2017), short-term investments have less than one year, while longterm more than one year or more. Short-term deposits such as bonds, stocks, and mutual funds.

2.3 Jakarta Composite Index (JCI)

Investors use JCI to monitor the stock price movement listed on the IDX. Through JCI, investors can understand the state of the capital market in Indonesia when it weakens or strengthens (Robiyanto, Santoso, Atahau, & Harijono, 2019).
JCI is historical data that is a reference for the development of the combined price of all listed shares (Sunariyah, 2006). Darmadji & Fakhruddin (2006) explained that the stock price index functions as an indicator that provides indicators of stock price movements both when the situation is active and slow. While Hermuningsih (2012) in his research explained that JCI can be used to compare an event with other events. The event in question is an increase or decrease in the stock price. Tesa (2012) adds that investors do not like conditions where stock indices slow down or fall because they can reduce their profit levels.

2.4 Bond Index

Bonds are long-term debt instruments in which a company has borrowed money with a specified nominal value and promises to repay in the future with terms including maturity date, coupon rate, and interest payment period (Gitman, 2003). Bonds can also be in the form of financing from the government obtained in the capital market. Bonds become securities issued by issuers to investors (bondholders) that offer yields in the form of coupons and principal (principal) paid regularly at maturity (Manurung

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et al., 2007). On the other hand, a bond rating is an assessment of the feasibility of a bond issuer based on related risk factors. Ratings are given not as a recommendation for buying or selling bonds but indicate the ability of bond issuers to meet their obligations (O n g , 2 0 0 2) . In practice, rating agencies carry out bond ratings to review the company's operational and financial plans and other aspects that can affect rankings.

2.5 Inflation

Inflation is a situation where there is an increase in the general price level of goods and services and other factors of production. It is also followed by a decrease in the purchasing power of society. Inflation can occur by following the tendency of prices to rise continuously and not only in one or several certain commodities (Gunawan, 1991). On the other hand, inflation can also be caused by the money supply being more than the price of goods and services available (Firdaus & Ariyanti, 2011). According to Utari et al. (2015), the Consumer Price Index (CPI) is a price indicator to see the success of monetary policy in controlling inflation. This indicator is faster than other price indicators, such as the Free Trade Price Index (IHPB) and GDP deflator. Insukrindo (1993) also agrees that CPI is an index often used to measure inflation because index data can be obtained monthly, quarterly, or annually.

2.6 BI Rate

The Indonesia Central Bank (ICB) Rate is one of the interest rates in Indonesia that is frequently used as a benchmark. Raharjo & Elida (2015: 43) mentioned that ICB Rate is the policy rate that reflects the stance of monetary policy set by the Central Bank. Announcement of BI Rate for the public so that the public can have a reference in taking steps in the economic sector. The announcement of the BI Rate will be made to the public as soon as it is determined at the Board of Governors' Meeting (RDG) as a signal of a clearer and firmer monetary policy stance to respond to the prospect of achievement of the inflation target. The BI Rate has a one-month tenor announced by Bank Indonesia periodically for a certain period. The BI Rate aims to determine and control the inflation rate so that the Indonesian economy can run stably and without significant shocks. Raharjo & Elida (2015:55) mentioned that Central Banks' mechanism in controlling the inflation rate using the BI Rate is as follows:

a. Central Bank will increase the interest rate if inflation in the coming months is expected to exceed the established inflation target.

b. Central Bank will lower the interest rate if inflation in the coming months is expected to be below the established inflation target.
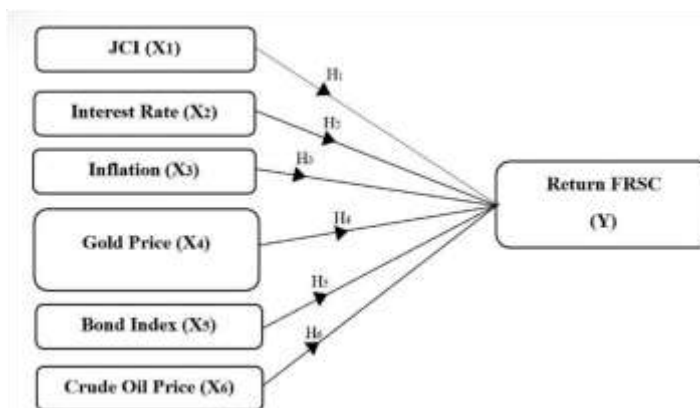
2.7 Gold Price

Sunariyah (2006) described that gold's global supply and demand will affect the price. Investors assume that gold is a means of asset diversification that can reduce investment risk and also as an alternative investment with higher returns above the inflation rate. In general, gold is an important commodity for investment vehicles because of the tendency of prices to rise and liquid because it can be accepted in various countries. In addition, gold can also serve as an effective hedge against inflation and other forms of uncertainty. Suryanto (2017) explained the increasing demand for gold as a safe-haven asset or investment asset whose value is expected to remain or increase when there is a shock in the market, simultaneously will increase the price of gold mining materials and has the potential to increase mining company profits. Increasing the company's revenue can increase the stock price of the mining sector and increase JCI.

2.8 World crude oil prices

World crude oil prices are measured against the world oil market, while the commonly used crude oil price reference today is West Texas Intermediate (WTI) or light sweet (Hidayat & Sudjono, 2022). Robiyanto et al. (2019) argue that World Texas Intermediate, a benchmark for oil prices in the United States, and Brent Crude, a benchmark for oil prices in Europe, can be used as a reference for oil prices in international trade. However, WTI is more desirable as the main reference for oil prices than Brent Crude because of its high quality with lower sulfur content, making it very suitable as a gasoline fuel. Globally, the ups and downs of oil prices affect economic sectors, especially capital markets, both positively and negatively. The positive side can be an opportunity for mining companies to increase sales and increase profitability. Increasing the company's profitability can encourage investor interest in buying shares and trigger an increase in stock prices in the mining sector, thereby encouraging an increase in JCI.

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2.9 Framework

2.10 Research Hypothesis

The Effect of JCI Return on Forex Rolling Spot Contract Return

The foreign exchange market is a market where pairs of two foreign currencies are traded. Usually, the fluctuation of the forex market is more dynamic compared to other asset markets such as stocks or bonds. The most commonly traded currency, namely EUR/USD, GBP/USD, USD/JPY, and USD/CHF. From a simple asset pricing point of view, it is easy to show that the correlation between exchange rates and equity returns can take any sign; the sign depends on the covariance between returns and currency and stock market risk premiums. The JCI has a negative correlation with the return of the Gold Index Rolling Contract (Dewi, Siregar, & Hartoyo, 2022).

H1: The JCI return has a significant correlation with the Forex Rolling Spot Contract return

The Effect of Interest Rate on Forex Rolling Spot Contract Return

Interest rates, one of the macro variables, affect the rate of return on futures contracts. It is because investors prefer to choose investments in deposits or bonds if the interest rates rise high. As a result, investors are not interested in investing in the futures market. The ICB Certificate interest rate has a negative and significant correlation with the return on Olein futures contracts (Pramasha & Widyarti, 2015)

H2: ICB rate has a significant correlation with the Forex Rolling Spot Contract return

The Effect of Inflation on Forex Rolling Spot Contract Return

A high inflation rate can lead to depreciation of the currency exchange rate against the other currency and vice versa. Research on the effect of the inflation rate on foreign exchange investment scroll contracts is still missing. Therefore, previous research refers to the topic of the influence of inflation on Dewi et al. (2011b) find that inflation does not affect the yield of the Rolling Spot Gold Index contract. It is because not every growth inflation is followed by a declining rupiah exchange rate against the USD currency. There are still other instruments used to suppress the rate of inflation, such as the increase in interest rates.

H3: Inflation has a significant correlation with the Forex Rolling Spot Contract return.

The Effect of Gold Prices Return on Forex Rolling Spot Contract Return

Financial newspapers often refer to gold as a safe-haven asset for investors' portfolios. Due to gold's capacity to prevent losses in volatile market conditions, the start of the global financial crisis in 2008 was accompanied by a resurgence in interest in understanding its characteristics as an investment instrument. This research investigates the positioning of gold for US and non-US investors and shows a negative correlation between gold investment returns (in USD) and the strength of the USD in the foreign exchange market and asymmetric risk diversification (Beckers & Soenen, 1984).

H4: The Gold Price return has a significant correlation with the Forex Rolling Spot Contract return

The Effect of Bonds Return on Forex Rolling Spot Contract Return

The existence of investment instruments provides investors with many choices. Therefore, each investment instrument affects the other. Bonds measured by the bond index impact the Forex Rolling Spot Contract. The rise and fall of government bonds are in line with the interest rate set by the state. The market for government bonds will grow if interest rates rise; conversely, if interest rates fall, the market for government bonds will shrink (Sasanti, 2008). Forex Rolling Spot Contract Investment Instrument, One type of futures contract, is a substitute for bond investment instruments, so government bonds have a negative impact on futures contracts. Similarly, Bodie & Rosansky (2012)mentioned that bonds negatively affect futures contracts.

H5: The Bond return has a significant correlation with the Forex Rolling Spot Contract return

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The Effect of Oil Price Return on Forex Rolling Spot Contract Return

Hamilton (2003) and Kilian (2009) suggest that oil price shocks can significantly affect various macroeconomic factors. Golub (1983) explains that oil price shocks can initiate wealth transfers to oil-exporting countries from oil-importing countries and consequently imply changes in exchange rates. These events can also be influenced by changes in terms of trade and net foreign assets. According to Wen et al. (2018), the USD exchange rate exerts a strong and more stable negative influence on crude oil prices in the short term, and the impact gradually weakens after 2012.

H6: Oil Price Return has a significant correlation with the Forex Rolling Spot Contract return

III. RESEARCH METHODOLOGY

This study aims to determine the effect of the JCI Return, Interest Rate, Bond Return, Inflation, Gold Price Return, and Crude Oil Price Return on the Forex Rolling Spot Contracts Return in 2021-2022. The sample used in this study is investment instruments from 10 Forex Rolling Spot Contracts in 2021-2022. The independent variables in the study are the JCI Return, Interest Rate, Bond Return, Inflation, Gold Prices Return, and Oil Prices Return. The dependent variable is the Forex Rolling Spot Contract Return. The data used are quantitative and secondary data with monthly panel data from 2021 to 2022. The method used in the research is the Panel Data Regression Method using the STATA tools.

In Panel Data Regression, there are three estimation models Common Effect Model, Fixed Effect Model, and Random Effect Model. There are three stages of testing to choose the best model.

3.1 Regression Model Selection with three tests:

A. Chow Test

Testing was done by comparing the Common Effect Model (CEM) with the Fixed Effect Model (FEM).

H0: If the probability value of F > α, then the appropriate estimation model is the Common Effects Model. H1: If the probability value of F < α, then the appropriate estimation model is the Fixed Effects Model. Significance level (α) = 0.05.

B. Hausman Test

Testing was done by comparing the Fixed Effect Model (FEM) with the Random Effect Model.

H0: If the Random Cross-Section probability value > α, then the appropriate estimation model used is the Random Effect Model. H1: If the Random Cross-Section probability value < α, then the appropriate estimation model used is the Fixed Effect Model. Significance level (α) = 0.05.

C. Lagrang Multiplayer (LM) Test

Testing was done by comparing the Common Effect Model (CEM) with the Random Effect Model

H0: If the value of the Breusch Pagan (Both) probability > α, then the right estimation model used is the Common Effects Model. H1: If the value of the Breusch Pagan (Both) probability < α, then the right estimation model used is the Random Effects Model. Significance level (α) = 0.05.

3.2 Hypothesis Testing

A. F-Statistic Test

Testing on the Significance Test Simultaneous (F) by comparing F Count with F Table with a hypothesis, with criteria as follows:

H0: Accepted if F Count < F table. H1: Rejected if F Count > F table.

B. Coefficient of determination (R^2)

A small R^2 value explains that the ability of the independent variables to explain variations in the dependent variable is very limited. A value close to one means that the independent variables provide more information needed to predict variations in the dependent variable (Ghozali & Ratmono, 2017). The coefficient of determination is between 0 and 1. A small R^2 value illustrates that the ability of the independent variables to explain the variation in the dependent variable is very limited. The use of the R-squared value is needed because each additional independent variable will increase the coefficient of determination (R^2), although though the variable is not significant, it means that if it is close to the value of 1, the independent variable can provide the desired information in predicting the dependent variable.

C. T-Statistic Test

The T-statistical test aims to test the significance level of the independent variable on the dependent variable (Gujarati, 2013).

H0: Accepted if "t count" < "t table" or probability > 0.05 H1: Rejected if "t count" > "t table" or probability < 0.05

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IV. RESULT AND DISCUSSION

4.1 Result

4.1.1 Panel Data Regression Model Selection

Dependent Variable	Independent Variable	Chow Test Result	Hausman Test Result	Lagrangian Multiplier Test Result
Return KGVA	IHSG Rate Inflation Gold Bond Oil	Prob > α 0,05 H0 Accepted Common Effect Model	Prob > α 0,05 H0 Accepted Random Effect Model	Prob > α 0,05 H0 Accepted Common Effect Model

Source: STATA 2023 (compiled by the researcher)

4.1.2 Classic Assumptions Test

Dependent Variable	Independent Variable	Uji Multikolienaritas	Uji Heteroskedastisitas
Return KGVA	IHSG Rate Inflation Gold Bond Oil	VIF (all independent variables) < 10 No Multicollinearity	Prob < α 0,05 Heteroskedastisitas Solution: Robust test to be homoscedasticity

Source: STATA 2023 (compiled by the researcher)

4.1.3 Best Model Analysis

Based on testing the regression model and classical assumptions, the best results obtained from the panel data regression model are the Common Effect model with homoscedasticity

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. reg gulir_va IHSG Rate Inflation Gold Obligation Oil, vce(robust)

Linear regression                               Number of obs =      137
                                                F( 6,   130) =    17.08
                                                Prob > F      =   0.0000
                                                R-squared     =   0.4010
                                                Root MSE      =   .00933

-------------------------------------------------------------------------
             |              Robust
    gulir_va |     Coef.   Std. Err.      t    P>|t|   [95% Conf. Interval]
-------------+-----------------------------------------------------------
        IHSG |  .0848585   .0332814    2.55   0.012    .0190152    .1507018
        Rate | -.3345427   .2244609   -1.49   0.139   -.7786117    .1095263
   Inflation |  .0010348   .0008502    1.22   0.226   -.0006472    .0027168
        Gold |  .0980371   .0353591    2.77   0.006    .0280834    .1679908
        Bond | -.8055759   .0931711   -8.65   0.000   -.9899038    -.621248
         Oil |  -.058166   .0125181   -4.65   0.000   -.0829315   -.0334005
       _cons |  .0143651   .0071251    2.02   0.046    .0002688    .0284613
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Source: STATA 2023

The result of the regression equation is:

Y = 0,0144 + 0,0848 IHSG − 0,3345 Rate + 0,0010 Inflation + 0,0980 Gold − 0,8056 Bond − 0,0582 Oil

1) Coefficient value regression variable JCI of 0,0848 means if the existence of an increase in the variable JCI by 1 unit so variable return FRSC experienced an increase of 0,0848 units, *ceteris paribus.*

2) Coefficient value regression variable Rate of 0,3345 means if the existence of an increase in the variable Rate by 1 unit so variable return FRSC experienced a decrease of 0,3345 units, *ceteris paribus.*

3) Coefficient value regression variable Inflation of 0,001 means if the existence of an increase in the variable Inflation by 1 unit so variable return FRSC experienced an increase of 0,001 units, *ceteris paribus.*

4) Coefficient value regression variable Gold of 0,0980 means if the existence of an increase in the variable Gold by 1 unit so variable return FRSC experienced an increase of 0,0980 units, *ceteris paribus.*

5) Coefficient value regression variable Bond of 0,8056 means if the existence of an increase in the variable Bond by 1 unit so, variable return FRSC experienced a decrease of 0,8056 units, *ceteris paribus.*

6) Coefficient value regression variable Oil of 0,0582 means if the existence of an increase in the variable Oil by 1 unit so, variable return FRSC experienced a decrease of 0,0582 units, *ceteris paribus.*

4.1.4 Hypothesis Test

Significance Test Results Simultaneous (F-test)

The F test is used to determine the effect of the independent variables on the dependent variable. Based on the best model analysis, it is known that the Prob value is 0,000 < 0,05. This means that the value of JCI returns, rate, inflation, gold price returns, bond index returns, and crude oil price returns together affect FRSC returns.

A. Coefficient of Determination (R^2)

Based on the best model analysis R^2 value is 0,4010. This means the ability of JCI returns, rate, inflation, gold price returns, bond index returns, and crude oil price returns in explaining the variation of the FRSC return variable is 40,10%, and other factors explain the remaining 59,90%.

B. Partial Significance Test Results (T-test)

1) The significance value of the variable JCI is 0,0012 < 0,05, thus the JCI return variable has a positive and significant effect on FRSC returns, and hypothesis H_1 in this study is accepted.

2) The significance value of the variable Rate is 0,139 > 0,05, thus the Rate variable has a negative and not significant effect on FRSC returns, and hypothesis H_2 in this study is not accepted.

3) The significance value of the variable Inflation is 0,226 > 0,05, thus the Inflation variable has a positive and not significant effect on FRSC returns, and hypothesis H_3 in this study is not accepted

4) The significance value of the variable Gold is 0,006 < 0,05, thus the gold price return variable has a positive and significant effect on FRSC returns, and hypothesis H_4 in this study is accepted

5) The significance value of the variable Bond is 0,000 < 0,05, thus the bond index return variable has a negative and significant effect on FRSC returns, and hypothesis H_5 in this study is accepted

6) The significance value of the variable Oil is 0,000 < 0,05, thus the Crude oil price return variable has a negative and significant effect on FRSC returns, and hypothesis H_6 in this study is accepted

4.2 Discussion

Nowadays, there are no journals similar to this research. Another issue that is nearly identical to this research, that we use for journal references is the relationship between independent variables with the other types of Rolling Spot, exchange rates, or futures contracts (derivative)

4.2.1 Effect of JCI Return Value on FRSC Return

The results showed that the JCI return value positively affects FRSC returns (foreign exchange market), with a regression coefficient of 0,0848 and a probability value of 0,0012 < 0,05. This means hypothesis H_1 in this study is accepted. Journal references are taken from the journal about the relationship between stocks and exchange rates. Dewi et al. (2011) found that JCI negatively affected the Gold Rolling Spot Index because stocks are a substitute investment for gold. A study by Phylaktis & Ravazzolo (2005), Diamandis & Drakos (2011), and Hau & Rey (2006) for Australia and Japan stated that stock indices have a positive relation with the exchange rate.

There are some reasons that JCI returns have a positive relationship with FRSC. The stock market and forex market are influenced by investor sentiment and market confidence. When investors are optimistic about the outlook for the economy and the stock market, they are more likely to invest in stocks, which can increase share prices. In addition, increased investor confidence can also lead to a stronger currency and attract investors to invest more in the foreign exchange (forex) market. Companies tend to perform well when the economy grows, leading to higher stock prices. Likewise, a strong economy attracts foreign investment, which can increase demand for the currency and drive up their investment in the forex market.

4.2.2 Effect of Interest Rate Value on FRSC Return

The results of the study show that interest rates have no effect on FRSC returns (foreign exchange market) with a regression coefficient of 0,3345 and a probability value of 0,139 > 0,05. This means hypothesis H_2 in this study is not accepted. Journal references are taken from the journal about the relationship between interest and exchange rates. Dewi et al. (2011b) found that the interest rate of the Indonesia Central Bank (ICB) certificate negatively affected the Gold Rolling Spot Index because ICB is a substitute investment for gold. Saraç & Karagöz (2016) found that there is no evidence that higher interest rates will cause a

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weakening of the exchange rate. While Kayhan et al. (2013) found no evidence of a causal relationship that runs from interest rates to exchange rates in Brazil, Russia, India, and Turkey. The relationship between interest rates and returns on the forex market is complex and can vary depending on various factors.

In this study, the interest rate does not affect FRSC return. Even though almost all the investors come from Indonesia, the interest rate of ICB does not become a consideration for investors when placing their investments. The FRSC trade does not involve Indonesia currency at all. Another reason, movements in foreign currency exchange rates are influenced by many factors, including global economic conditions, politics, financial stability, and market sentiment. These factors often have a greater influence than changes in domestic interest rates. Therefore, the BI Rate is not the dominant factor affecting the foreign exchange market.

4.2.3 Effect of Inflation Value on FRSC Return

The results of the study show that interest inflation has no effect on FRSC returns (foreign exchange market) with a regression coefficient of 0,0010 and a probability value of 0,226 > 0,05. This means hypothesis H_3 in this study is not accepted. Journal references are taken from the journal about the relationship between inflation and futures contracts. The relationship between inflation and foreign exchange market returns is not always linear or consistent. Many other influencing factors include monetary policy, fiscal policy, global economic conditions, and political factors. Dewi et al. (2011b) mentioned that Inflation does not affect the yield of the Gold Rolling Spot Index contract. Nurmala & Aminudin (2021), and Pramasha & Widyarti (2015) show that inflation has a negative effect on futures contracts.

Gorton and Rouwenhorst (2005) found that inflation has a positive relationship with futures contracts because It significantly impacts the futures market and its growth.

In this study, inflation does not affect FRSC return. Even though almost all the investors come from Indonesia, Indonesian inflation is not something investors consider when placing their investments. The FRSC trade does not involve Indonesian currency at all. Another reason, the foreign exchange market is affected by many factors besides inflation, such as economic growth, interest rates, political stability, international trade conditions, and market sentiment. Therefore, currency exchange rate movements can be influenced by these factors simultaneously and the role of inflation is not dominant anymore

4.2.4 Effect of Golf Price Return Value on FRSC Return

The results showed that gold price return value had a positive effect on FRSC returns (foreign exchange market), with a regression coefficient of 0,0980 and a probability value of 0,0006 < 0,05. This means hypothesis H_4 in this study is accepted. Journal references are taken from the journal about the relationship between Gold Price and exchange rate. The relationship between gold Price returns on the foreign exchange market can vary depending on economic and financial factors. Wang et al. (2021) stated that gold could partially hedge against currency depreciation in the long term. Still, gold cannot hedge exchange rate risk in the short term because the effect of the risk of gold price on exchange rate fluctuations is positive. Wei & Wu (2020) find gold can act as a hedge for exchange rates in France, India, Japan, the UK, and the US. Wang & Lee (2016) discovered that the effectiveness of gold hedging on exchange rate risk differs due to asymmetric information caused by exchange rates in the main gold-producing and gold-consuming countries

There are some reasons that gold price return has a positive relationship with FRSC. Gold is considered a safe asset or "safe haven" in investment. When the economic or political situation is unstable, investors tend to seek protection and divert their investment into gold. High demand for gold will increase its price. At the same time, currency depreciation will occur due to market uncertainty and fear. Therefore, high gold price returns are often associated with positive foreign exchange market returns. Another reason is, Gold is often used as a portfolio diversification instrument. Investors tend to allocate some of their assets to gold to reduce risk and increase portfolio stability. When the price of gold rises, the performance of the portfolio as a whole can also improve. This can create positive sentiment in the market and have an impact on foreign exchange market returns.

4.2.5. Effect of Bond Index Return Value on FRSC Return

The results showed that bold index return value had a negative effect on FRSC returns (foreign exchange market), with a regression coefficient of 0,8056 and a probability value of 0,000 < 0,05. This means hypothesis H_5 in this study is accepted. Journal references are taken from the journal about the relationship between bonds and exchange rates or futures contracts. Lace et al. (2015) discovered that German bond yields and US government bond yields affect the exchange rate of EUR/USD. The effect of German government bond yields is positive, while the effect of the United States government bond yields is negative. Hsing (2016), research shows that South African government bond yields positively influence the ZAR/USD exchange rate. Pramasha & Widyarti (2015) found that government bonds do not affect Olein Futures Contracts.

This research shows that bond index return has a negative relationship with FRSC, and it is because of capital flows and financial risk. Changes in bond returns can affect capital flows between countries. If a country's bond returns decrease, this can reduce the interest of foreign investors in holding these bonds. Foreign investors may withdraw their funds from the bond market and divert them to the foreign exchange market in search of more profitable investment opportunities. When capital flows out of

a country, the country's currency tends to weaken against foreign currencies, thereby negatively affecting foreign exchange market returns.

Meanwhile, negative bond returns can be considered an indicator of financial risks that may occur in a country. If a country's bond returns decrease or become negative, this can indicate economic instability or high credit risk. Foreign investors may avoid risk by withdrawing their funds from the bond market and diverting them to the foreign exchange market, which is considered more stable or secure. As a result, this can negatively affect foreign exchange market returns.

4.2.6 Effect of Crude Oil Price Return Value on FRSC Return

The results showed that crude oil price return value had a negative effect on FRSC returns (foreign exchange market), with a regression coefficient of 0,0582 and a probability value of 0,000 < 0,05. This means hypothesis H_6 in this study is accepted. Journal references are taken from the journal about the relationship between crude oil price return and exchange rate. Chen & Chen (2007) find that the relationship between oil prices and currency exchange rates can be positive, where commodity prices determine exchange rates and petroleum prices are considered a significant source of fluctuations in USD and other G7 currency exchange rates. Research by Lizardo & Mollick (2010) states that an increase in real oil prices causes a significant USD depreciation against the currencies of oil exporters, such as Canada, Mexico, and Russia.

On the other hand, the currency of oil importers, such as Japan, depreciates relative to the USD when real oil prices rise. According to Reberedo et al. (2017), the negative dependence between oil and the US dollar increased after the start of the global financial crisis. Wen et al. (2018) show that the USD exchange rate has a stronger and more stable negative effect on crude oil prices in the short term, and this effect gradually weakened after 2012.

Research shows that there is a negative relationship between crude oil price return and returns on the foreign exchange market. Factors that can explain these results are economic dependence and global market sentiment. Many countries, especially oil-producing countries, highly depend on crude oil exports for their economic income. When oil prices fall, these countries' incomes decrease, which can lead to economic instability and pressure on their currencies. This can affect the foreign exchange market as investors tend to sell these countries' currencies to avoid further risk.

On the other hand, the world price of crude oil is often considered an indicator of the global economy's health. If oil prices fall sharply, this can be considered a signal of a global economic slowdown. This can trigger investors' concerns and cause them to sell currencies tied to more vulnerable economies, which in turn can affect foreign exchange markets.

V. CONCLUSION

The forex market's movement fluctuates greatly compared with other markets, such as the stock and bond markets. Many factors can influence the return and volatility of the foreign exchange (forex) market, including macroeconomic factors, market sentiment, monetary policies, market speculations, and global economic factors. This research aims to find the influence of JCI return, interest rate, inflation, gold price return, bond return, and crude oil price return on forex rolling spot contract return (FRSC) traded in ICDX during 2021–2022. The ability of JCI returns, rate, inflation, gold price returns, bond index returns, and crude oil price returns in explaining the variation of the FRSC return variable is 40,10%. JCI returns and gold price returns positively affect FRSC return in ICDX. Interest Rate and Inflation do not significantly affect FRSC returns in ICDX. Bond index returns and crude oil price returns negatively affect returns FRSC in ICDX.

So far, research on rolling contract products on the ICDX exchange has only been carried out by this research. Therefore, suggestions that can be given for further research are to use other analytical methods and carry out research development by increasing the number of variables, increasing the population and sample, and extending the period. Investors should pay attention to fundamental ratios, especially macro-variable factors such as JCI, world gold prices, bond indices, and world crude oil prices which affect the return on foreign rolling spot contracts. This is to increase profits and minimize investment risk.

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