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Indonesia's Foreign currency reserves: An Analysis of the Influencing Factors

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A B S T R A C T

The impact of exports, inflation, the rupiah exchange rate (ER), and foreign direct investment (FDI) on Indonesia's foreign currency reserves is examined in this study (FER). The FER is the dependent variable in the study model's multiple linear regression equations, which also include the independent variables exports, inflation, the exchange rate of the rupiah, and foreign direct investment in Indonesia. The data used is from 2001 to 2021, and the model estimation technique is Ordinary Least Squares. The study demonstrates that FER is highly impacted by exports, inflation, the exchange rate of the rupiah, and FDI in Indonesia. FER is significantly and favorably impacted by exports and FDI. FER is negatively and significantly impacted by inflation in Indonesia. The rupiah ER does, however, have a slight and favorable impact on FER.

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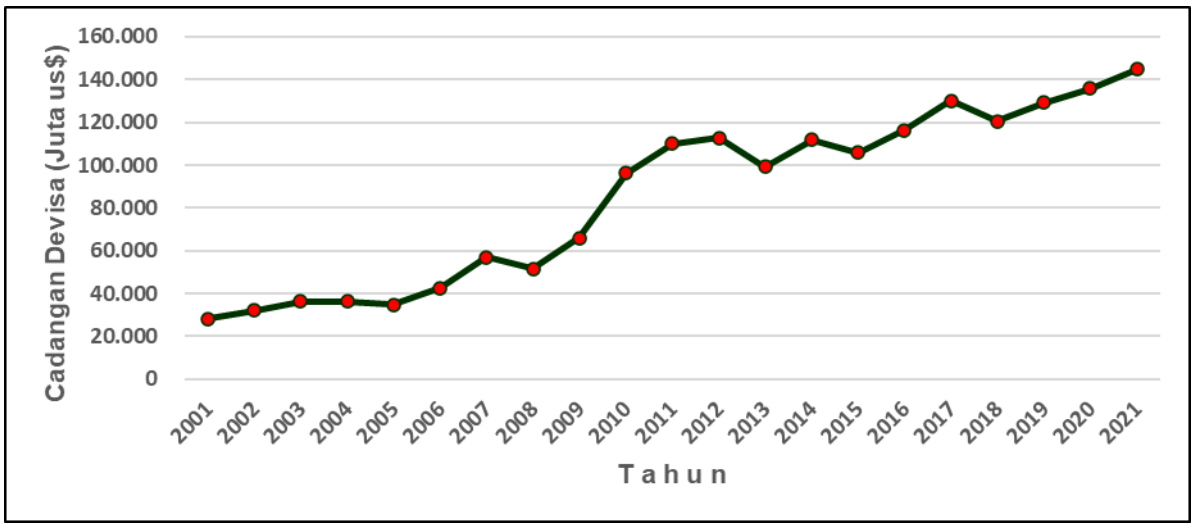
INTRODUCTION

Foreign exchange is a form of payment used in international transactions that uses foreign money, gold, and securities. In the meantime, according to Bank Indonesia, foreign currency reserves are sums of money kept in the central bank's foreign currency account to meet financial commitments in cross-border transactions (Kamalina, 2022). A nation's foreign currency reserves are a sign of riches in the form of foreign assets that can keep market participants' faith in the ability of the nation to fulfill its obligations in international transactions. According to Falianty (2019), exchange rates are a component of national savings, and as such, growth in these reserves is an indication to the world's financial markets that a nation's monetary policy is credible and that it is creditworthy.

Due to their versatility, foreign currency reserves are one of the macroeconomic indicators. According to Fathina (2022), foreign currency reserves can be used to fund international relations, pay off foreign debts, and conduct international trade in addition to being a source of governmental revenue. Given the significance of foreign currency reserves, a nation must be able to effectively manage reserves to sustain the resilience of the external sector, maintain macroeconomic stability, maintain exchange rate stability, and finance a balance of payments deficit.

As a nation that follows a free exchange rate system, Indonesia's foreign currency reserves may not be adequate because they are significantly influenced by market and foreign exchange factors. In the free foreign exchange system, the general public is free to obtain and spend foreign currency, whether it comes from exports, supplying services, or receiving capital interest. Foreign currency can also come from foreign credit exchange originating from foreign loans. Foreign currency reserves will occasionally be impacted by market volatility on both the domestic and international levels. Additionally, Indonesia's free foreign exchange system will permit unrestricted capital inflows and outflows, making the economy of the nation vulnerable to dangers brought on by the speculative actions of capital owners who have unlimited access to cash. Therefore, a number of policies must be put into place to guarantee the sufficiency of Indonesia's foreign currency reserves.

Indonesia's foreign currency reserves fluctuated even though they tended to rise between 2001 and 2021. (Figure 1.1).



Source: Badan Pusat Statistik (bps.go.id) (processed data)

Figure 1. For the years 2001 to 2021, Indonesia's foreign currency reserves

Indonesia's foreign currency reserves fell in 2008 after generally rising from 2001 to 2007. In general, the rupiah stability strategy and foreign debt payments caused the drop in foreign currency reserves, but the decline in 2008 is assumed to have been brought on by the global financial crisis, which was particularly severe at the time. Additionally in 2013, 2015, and 2018, Indonesia's foreign currency reserves decreased. The requirement for more foreign currency reserves to pay for imports was the primary factor in Indonesia's foreign currency reserves declining in 2013 (Prihatmoko, 2013). According to Petriella (2015), the decrease in 2015 was brought on by the slowing of the Chinese economy and the strengthening of the US dollar, but Chandra (2018) the decline in 2018 was brought on by the repayment of government debt abroad and the stabilization of the rupiah's value relative to the US dollar.

The decline in foreign currency reserves shows that Indonesia is not always able to build up its foreign currency reserves, which can have a detrimental effect on activities involving international trade. Study on Indonesia's foreign currency reserves is regarded as being extremely significant in order to maintain adequacy and increase foreign currency reserves. This research is done in order to determine how to enhance foreign currency reserves as well as what influences their fluctuation.

Foreign exchange can be separated into general foreign exchange and foreign credit exchange, depending on the source. The selling of services and transfers, as well as the export of goods, are two ways to earn general foreign exchange. Loans from abroad, Foreign Investment, and getting interest and dividends from abroad are all sources of credit foreign exchange (Savitri, 2022). Foreign currency reserves will therefore be impacted by changes in the procurement of general foreign exchange and foreign credit exchange. According to Juliansyah et al. (2020), a nation's foreign exchange reserves are impacted by a number of variables, including exports, exchange rates, interest

rates, and inflation. Imports and foreign debt also have an impact on changes in foreign currency reserves.

Exporting nations' foreign currency reserves will rise as a result of increased foreign currency acquisition. According to Purnamawati & Yuniarta (2021), boosting an economy's exports can open up new markets, create more job possibilities, and boost foreign exchange reserves. In contrast, import-related activities necessitate foreign currency payments and deplete foreign exchange reserves. Prices in a country's home market will be relatively less expensive than in foreign markets as a result of the depreciation of its currency; as a result, exports will rise, foreign exchange earnings will rise, and foreign currency reserves will rise as well. Exports will decline and imports will rise as a result of a country's relative export price premium and relative import price discount caused by inflation. Reduced exports will lower the supply of foreign currency, which will eventually hurt reserves. Enhancement imports will cause a decrease in foreign currency reserves by increasing the amount of foreign currency used to pay for imports. A country's foreign exchange reserves will benefit from capital inflows, such as a rise in foreign investment. Foreign debt can be seen of as an influx of capital from overseas into the nation, boosting foreign exchange reserves.

This research looks at how the foreign currency reserves of Indonesia are affected by exports, inflation, currency exchange rates, inflation, and foreign investment. The reason is that numerous studies on the effects of different variables that influence Indonesia's foreign currency reserves have come to contradictory results. Theoretically, it is anticipated that exports will increase foreign currency reserves. Exports have a good and large impact on foreign currency reserves, according to the research findings of Resdianto et al. (2022), Dani (2020), Nurasriliya (2021), Sari (2020), Jalunggono et al. (2020), and Putri et al. (2017). The findings of Lestari (2016) and Handijaya (2021) studies revealed that exports had a small but favorable impact on Indonesia's foreign exchange reserves. The findings of Uli (2016), which showed that exports had a negative and minor impact on foreign currency reserves, were unique and at odds with theoretical assumptions.

Theoretically, inflation should hurt foreign exchange reserves, but different research findings show that inflation positively and significantly impacts Indonesia's foreign currency reserves (Dani (2020); Nurasriliya (2021); Jalunggono et al. (2020); Putri et al. (2017)). According to Lestari (2016) research, inflation has a small but favorable impact on Indonesia's foreign exchange reserves. Inflation damaged Indonesia's foreign currency reserves, but it was not statistically significant, according to (Sari, 2020).

The findings of (Sari, 2020), (Jalunggono et al., 2020), and (Lestari, 2016) are consistent with theoretical predictions, according to which the exchange rate has a favorable and sizable impact on Indonesia's foreign currency reserves. Both (Uli, 2016) research and (Efiza, 2016) findings indicated that Indonesia's foreign exchange reserves were positively but marginally impacted by the exchange rate. The findings of Nurasrilya's study from 2021, on the other hand, showed that the exchange rate had a negative and considerable impact on

Indonesia's currency reserves. Theoretically, FDI increases a country's foreign exchange reserves. Lestari (2016) research demonstrates that FDI has a favorable and considerable impact on Indonesia's foreign exchange reserves. However, Putri et al. (2017) The researcher's findings revealed that the influx of foreign investment had a significant adverse effect on the currency reserves of Indonesia.

The results of many studies on Indonesia's foreign currency reserves have been inconsistent, and this necessitates further research by redefining the research model and utilizing the most recent research data. Therefore, the purpose of this study is to ascertain how foreign investment, inflation, the rupiah exchange rate, and exports affect Indonesia's foreign currency reserves.

THEORETICAL REVIEW

Through exporting goods and services, a nation can earn a particular quantity of foreign exchange, often known as foreign currency. As a result, exports play a significant role in foreign currency reserves. In addition to other foreign exchange sources, Sasono (2012) claimed that one of Indonesia's primary sources of foreign exchange for maintaining the nation's foreign currency reserves is the export of goods and services. The same argument was made by (Purnamawati & Yuniarta, 2021), who claimed that raising exports may help boost foreign currency reserves in addition to opening up new markets and employment prospects.

An rise in a nation's exports of products and services will boost its availability of foreign currency, which in turn will boost its total supply of foreign currency and, ultimately, its foreign currency reserves. On the other hand, if a nation's exports of goods and services decline, the availability of foreign exchange in that nation also declines, which will result in a reduction in the amount of foreign currency and a subsequent decline in the nation's foreign currency reserves. Thus, it may be concluded that exports and a country's foreign currency reserves have a unidirectional relationship in theory.

H1: Exports positively and significantly affect Indonesia's foreign currency reserves from 2001 – 2021.

Inflation can be divided into two categories based on where it comes from: domestically and internationally. The failure of the market system, which results in rising food costs, and the ongoing deficit in the state budget, which is supported by printing new currency, are examples of internal economic events that contribute to inflation in the nation. In the meantime, inflation from abroad is inflation brought on by rising import costs. This may happen as a result of higher import levies or expensive overseas manufacturing. The majority of the raw materials and equipment used in production units in developing countries experience this inflation (Samuelson & Nordhaus, 2004). Inflation can then be divided into two categories when viewed from the perspective of the causal factors: (1) demand-pull inflation, which results from a dominant increase in aggregate demand relative to an increase in aggregate supply, and (2) cost-push inflation, which results from an increase in production costs that results in a

lack of aggregate supply ((Sukirno, 2013); (Rahardja & Manurung, 2008); (Samuelson & Nordhaus, 2004)).

The prices of goods and services that are exported to a country will increase due to inflation; in contrast, the costs of goods and services that are imported will decrease. The demand for the country's exported goods and services will decline if export prices are relatively higher. Foreign currency and the nation's foreign currency reserves will decline as a result of the decline in the supply of foreign cash. On the other hand, the considerably reduced import costs have increased domestic consumers' interest in importing goods and services. As a result, the country's holdings of foreign currency will diminish, increasing the demand for foreign money, which will have an effect on the country's foreign currency reserves. The link between inflation and foreign currency reserves is hence negative.

H2: Inflation negatively and significantly affects Indonesia's foreign currency reserves from 2001 – 2021.

(Sukirno, 2013) claims that a number of variables, including shifts in consumer preferences, price changes for both exported and imported goods, price increases or inflation, and changes in interest rates, can have an impact on the exchange rate or exchange rate of one nation's currency against another country's currency. as well as economic growth and return on investment rates. More specifically, Falianty (2019) claims that the demand for foreign exchange is influenced by three key factors: import payments, capital outflows, and speculative activities. The demand for foreign currency increases as imports of goods and services rise, which results in a weakening of the local currency exchange rate. The demand for foreign exchange rises as capital leaves the country, which lowers the value of the native currency. The demand for foreign currency will increase as there is more foreign exchange speculative activity, which will cause the local currency exchange rate to decline.

Furthermore, according to (Falianty, 2019), there are two key factors that affect the supply of foreign exchange: receipts of export revenues and capital inflows. The amount of foreign money that a country owns increases in direct proportion to the volume of products and services it exports, which supports the local currency exchange rate. So, the stronger the local currency exchange rate, the bigger the capital influx. Receiving debt from abroad, placing short-term cash by foreign parties, and foreign direct investment are all examples of capital inflows within a nation.

Let's say that many things alter and this results in a decline in the value of the rupiah. The prices of goods that Indonesia exports will then be relatively less expensive than the prices in foreign markets, while the prices of goods that Indonesia imports will be relatively more expensive than the prices in the home market. The demand for products and services that Indonesia exports will rise, while the demand for goods and services that Indonesia imports will fall. Increased export demand will result in increased foreign exchange supply for Indonesia, while decreased import demand will result in decreased foreign exchange demand for Indonesia, boosting both the amount of foreign currency and Indonesia's foreign currency reserves.

H3: The rupiah exchange rate positively and significantly affected Indonesia's foreign currency reserves from 2001 – 2021.

Foreign investment, usually referred to as foreign direct investment, is the movement of capital for financial gain between nations. According to (Salvatore, 2014), foreign investment overseas seeks to share risks while generating larger profits (perhaps as a result of international growth rates that are higher, better tax treatment, or more accessible infrastructure). Foreign investors or citizens, whether they are people, companies, or governments, who use only foreign capital or combine it with native capital are considered foreign investment actors in Indonesia. The growth in foreign investment will promote the country's foreign currency reserves, which will have a favorable impact on the financial industry (Tambunan, 2001). The connection between foreign investment and foreign exchange reserves.

H4: Foreign Investment positively and significantly affects Indonesia's foreign currency reserves in 2001 – 2021.

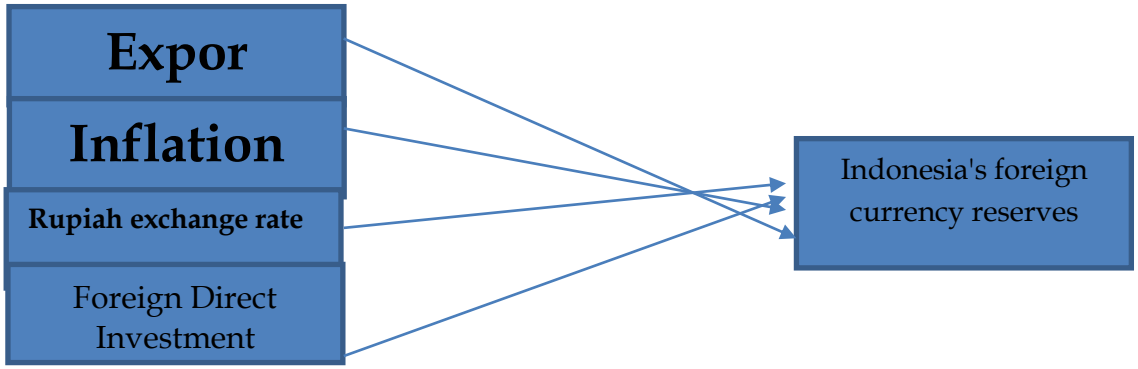


Figure 2. Conceptual Framework

METHODOLOGY

Exports, inflation, the rupiah exchange rate, and foreign investment are all independent variables while Indonesia's foreign currency reserves are the dependent variable in this study's multiple linear regression equations. Here is the regression equation.

$$CDI_t = b_0 + b_1 EKS_t + b_2 INF_t + b_3 NTR_t + b_4 PMA_t + U$$

The variables in the model are as follows:

CDI_t = Indonesia's foreign currency reserves (Million US$/year)
EKS_t = Indonesia's oil and gas and non-oil exports (US$ million/year)
INF_t = Inflation rate in Indonesia (%/year)
NTR_t = Rupiah exchange rate against the US dollar (Rp/US$/year)
PMA_t = Foreign Investment in Indonesia (Million US$/year)
U = error term

The study model was estimated utilizing secondary time series data for the years 2001–2021 using the Ordinary Least Squares approach. The Central Statistics Agency's (www.bps.go.id), Bank Indonesia's (www.bi.go.id), and the Investment Coordinating Board's (www.icb.go.id) websites were used as sources for the data (www.bkpm.go.id). Software called SPSS is used to process data (Statistics Package for Social Science for Windows 24.0).

The econometric, statistical, and economic criteria are used to evaluate the research model's suitability for use as an estimator. Econometric standards are used to assess the research model to rule out problems with multicollinearity and autocorrelation. Statistical criteria are used to assess the study model's capacity to explain the relationship between the independent and dependent variables. The t-test is used to assess each independent variable's individual impact on the dependent variable, and the F-test is employed to assess all independent variables' synchronous individual impacts on the dependent variable. How well the independent factors can account for the dependent variable's diversity is measured using the coefficient of determination (R^2). Economic factors are used to determine whether the regression coefficient's parameters or signs are consistent with theoretical forecasts.

RESULTS

Table 1 displays the outcomes of data processing to determine whether the research model is free of multicollinearity issues. The VIF value is 10, and the Tolerance value for each independent variable is 1. The research model is thus devoid of multicollinearity issues, based on econometric criteria, and may be employed as an effective empirical model with acceptable predictive ability.

Table 1. Multicollinearity Test

Independent Variable	Collinearity Statistics	
	Tolerance	VIF
EKS	0,349	2,868
INF	0,664	1,506
NTR	0,210	4,756
PMA	0,127	7,880

Source: Processing of research data 2001 - 2021

If there are any autocorrelation problems with the study model, they can be found using the Durbin-Watson test (D-W test). The Run Test is utilized as an alternative to assessing the autocorrelation problem in this study because the D-W test cannot yield conclusive results; the results are shown in Table 2. In the table of Asymp values. Sig. (2-tailed) = 0.175 > 0.05, it may be inferred that this research model is free of autocorrelation issues, allowing it to be employed as a good empirical model with adequate predictive ability based on econometric standards.

Table 2. Runs Test

	Unstandardized Residual
Test Value[a]	-253.13380
Cases < Test Value	10
Cases >= Test Value	11
Total Cases	21
Number of Runs	15
Z	1.357
Asymp. Sig. (2-tailed)	.175

a. Median

source: Processing of research data 2001 - 2021

Table 3 displays the outcomes of data processing for the regression coefficients. The Indonesian rupiah exchange rate, exports, Indonesian inflation, the coefficient of determination (R^2), and foreign investment in Indonesia may all account for 96% of the variation in Indonesia's foreign currency reserves. Accordingly, this study model is a good empirical model with acceptable explanatory power based on statistical criteria.

Table 3. Regression Coefficient

Konstanta/Koefisien Variabel Bebas	**Koefisien Regresi**	**t-statistik**	**Signifikansi**
(constant)	-2447,459	-0,140	0,891
EKS	0,372	5,558	0,000*)
INF	-2113,119	-3,370	0,004*)
NTR	1,575	0,785	0,444
PMA	1,568	2,494	0,024**)
		F-statistic = 95,112	0,000*)
CDI = -2447,459 + 0,372 EKS - 2113,119 INF + 1,575 NTR + 1,568 PMA			
(R^2 = 0,960; DW = 2,271; N = 21)			
*) koefisien regresi signifikan pada taraf α = 1% atau α = 0,01			
**) koefisien regresi signifikan pada taraf α = 5% atau α = 0,05			

source: Processing of research data 2001 - 2021

The positive sign of the regression coefficients for export, the exchange rate of the rupiah, and foreign investment in Indonesia and the negative sign of the regression coefficient for inflation in Indonesia are by theoretical forecasts or economic standards. According to the F test, Indonesia's foreign currency reserves are significantly impacted simultaneously by fluctuating exports, inflation, the value of the rupiah, and foreign investment. The t-test reveals that while the exchange rate of the rupiah does not significantly affect Indonesia's foreign currency reserves, the variables of exports, inflation, and foreign investment do.

DISCUSSION

Indonesia's foreign currency reserves are favorably and strongly impacted by exports, as shown by the regression coefficient of 0.372. Ceteris paribus, this implies that an increase in exports of US$ 1 million will result in an increase of US$ 0.372 million in Indonesia's foreign currency reserves. On the other hand, ceteris paribus, a $1 million drop in exports will result in a $0.372 million drop in foreign exchange reserves for Indonesia. The findings of this study give the government important information about the need to execute various policies that can improve Indonesia's export competitiveness in order to raise its foreign exchange reserves. These findings are in line with those of earlier studies by (Resdianto et al., 2022), (Nurasriliya, 2021), (Sari, 2020), (Jalunggono et al., 2020), and (Putri et al., 2017), which similarly discovered that exports had a favorable and sizable impact on Indonesia's foreign exchange reserves. The findings of this analysis support (Sasono, 2012) assertion that one of the staple sources of foreign exchange that can increase Indonesia's foreign exchange reserves is exports of products and services. In fact, (Purnamawati & Yuniarta, 2021) asserts that a country's export growth not only opens up new markets and employment prospects, but also contributes to the growth of its foreign exchange reserves.

With a regression coefficient of -2113.119, Indonesia's inflation has a considerable negative impact on the country's foreign currency reserves. Ceteris paribus, a 1% decrease in inflation would result in a rise in foreign currency reserves of US$ 2,113.119 million. The reserves of foreign currency held by Indonesia fell by US$ 2,113.119 million as a result of an increase in inflation of 1%, ceteris paribus. As a result, maintaining low and steady inflation is a different strategy that the Indonesian government might use to ensure availability and even boost foreign currency reserves. (Resdianto et al., 2022) research, which also revealed that inflation has a large negative impact on Indonesia's foreign currency reserves, was followed by the findings of this study. Additionally, according to (Sari, 2020) research, inflation has a negligible negative impact on Indonesia's foreign exchange reserves.

The rupiah exchange rate against the US dollar has a positive but insignificant effect on Indonesia's foreign currency reserves. Although the effect of the rupiah exchange rate on Indonesia's foreign currency reserves is not significant at $\alpha = 5\%$, the positive sign of the regression coefficient indicates that the depreciation of the rupiah against the US dollar can increase Indonesia's foreign currency reserves. The insignificant effect of the rupiah exchange rate on Indonesia's foreign currency reserves could occur because changes in the rate do not affect foreign currency reserves directly but through other variable economic transmission mechanisms, for example, through exports. The depreciation of the rupiah against the US dollar will increase exports, increasing Indonesia's foreign currency reserves. On the other hand, the appreciation of the rupiah against the US dollar will reduce exports and reduce Indonesia's foreign currency reserves. The results of this study follow the results of research by (Uli, 2016) and (Efiza, 2016). The rupiah exchange rate had a positive but insignificant effect on Indonesia's foreign currency reserves. However, it differs

from the research results of (Resdianto et al., 2022) and (Jalunggono et al., 2020), who found that the rupiah exchange rate positively and significantly affected Indonesia's foreign currency reserves.

Foreign Direct Investment in Indonesia has a positive and significant effect on Indonesia's foreign currency reserves, with a regression coefficient of 1.568. This means that if foreign investment in Indonesia increases by US$ 1 million, ceteris paribus, Indonesia's foreign currency reserves will also increase by US$ 1.568 million. Conversely, if foreign investment in Indonesia decreases by US$ 1 million, ceteris paribus, Indonesia's foreign currency reserves will also decrease by US$ 1.568 million. This study follows the results of (Lestari, 2016) research, which also found that FDI has a positive and significant effect on Indonesia's foreign currency reserves. Thus, Indonesia's foreign currency reserves can be increased by further promoting FDI, for example, by improving the quality of investment services in various regions through the implementation of the One Stop Service System following Law No. 25/2007 concerning investment, simplifying and accelerating the completion of permits, as well as better coordination between the central government and local governments.

CONCLUSIONS AND RECOMMENDATIONS

Exports, inflation, the value of the rupiah, and FDI all have a big impact on Indonesia's foreign currency reserves simultaneously. The impact of exports and FDI is positive and large, whereas the impact of inflation on Indonesia's foreign exchange reserves is adverse and significant. Thus, increasing competitiveness and offering a range of facilities, conveniences, and incentives to encourage entrepreneurs to participate in businesses that make export-oriented goods are the policy implications that can be taken to boost Indonesia's foreign currency reserves. Similarly, by encouraging collaboration between the central and regional governments in the implementation of the One Stop Service system, particularly in strengthening and enhancing the quality of investment services in various regions, Foreign Investment in Indonesia can be increased. The government needs to control rising production costs since they can cause inflation to rise and have a detrimental impact on Indonesia's foreign exchange reserves. In order for the inflation rate to stay low and stable, Bank Indonesia, the country's monetary policy-making body, must exert control over it.

The positive but insignificant effect of the rupiah exchange rate on Indonesia's foreign currency reserves still needs to be re-examined using the latest data and respecifying the research model by adding independent variables not included in this research model example, including imports and foreign debt variables.

FURTHER STUDY

The model in this study is still simple and only uses four independent variables, so for further research, it is hoped that the model will be re-specificated by adding independent variables such as foreign debt and imports, including increasing the observation period.

REFERENCES

Chandra, A. A. (2018). *Cadangan Devisa RI Terus Merosot dari Awal Tahun*. https://finance.detik.com/moneter/d-4205181/cadangan-devisa-ri-terus-merosot-dari-awal-tahun

Dani, S. C. R. (2020). Pengaruh Ekspor Impor dan Nilai Tukar Rupiah Terhadap Cadangan Devisa Indonesia Tahun 2000-2019. *Ecodunamika*, *3*(2). https://ejournal.uksw.edu/ecodunamika/article/view/4049

Efiza, L. (2016). Pengaruh kurs dan BI rate terhadap cadangan devisa Indonesia. *E-Journal Perdagangan Industri Dan Moneter*, *4*(2). https://doi.org/10.22437/PIM.V4I2.4166

Falianty, T. A. (2019). *Teori Ekonomi Makro dan Penerapannya di Indonesia*. PT RajaGrafindo Persada.

Fathina, H. (2022). *Apa itu Cadangan Devisa? Ini Manfaat, Jenis, Beserta Contohnya* . https://ekonomi.bisnis.com/read/20221126/9/1602330/apa-itu-cadangan-devisa-ini-manfaat-jenis-beserta-contohnya

Handijaya, F. Y. (2021). *FAKTOR FAKTOR YANG MEMPENGARUHI CADANGAN DEVISA INDONESIA TAHUN 2010-2018*. http://lib.unnes.ac.id/46367/

Jalunggono, G., Cahyani, Y. T., & Juliprijanto, W. (2020). PENGARUH EKSPOR, IMPOR DAN KURS TERHADAP CADANGAN DEVISA INDONESIA PERIODE TAHUN 2004 – 2018. *Jurnal Ekonomi, Bisnis, Dan Akuntansi*, *22*(2), 171–181. https://doi.org/10.32424/JEBA.V22I2.1593

Juliansyah, H., Moulida, P., & Apridar, A. (2020). Analisis Faktor-faktor Yang Mempengaruhui Cadangan Devisa Indonesia Bukti (Kointegrasi dan Kausalitas). *Jurnal Ekonomi Regional Unimal*, *3*(2), 32–46. https://doi.org/10.29103/JERU.V3I2.3204

Kamalina, A. R. (2022). *Apa Itu Cadangan Devisa dan Apa Fungsinya?* https://finansial.bisnis.com/read/20220107/55/1486403/apa-itu-cadangan-devisa-dan-apa-fungsinya

Lestari, L. (2016). *Pengaruh Ekspor Neto, Kurs, Penanaman Modal Asing Terhadap Cadangan Devisa Di Indonesia Periode 2005-2014 (Studi Sebelum Dan Sesudah Krisis Global)*,. https://www.unud.ac.id/in/tugas-akhir1206105054.html

Nurasriliya. (2021). *Analisis Faktor – Faktor yang Mempengaruhi Cadangan Devisa Indonesia*. https://repositori.usu.ac.id/handle/123456789/33295

Petriella, Y. (2015). *Ini Alasan Mengapa Cadangan Devisa Terus Menurun*. https://ekonomi.bisnis.com/read/20150807/9/460418/ini-alasan-mengapa-cadangan-devisa-terus-menurun

Prihatmoko, H. (2013). *CADANGAN DEVISA: Impor Penyebab Utama Penurunan*. https://ekonomi.bisnis.com/read/20130607/9/143423/cadangan-devisa-impor-penyebab-utama-penurunan

Purnamawati, I. G. A., & Yuniarta, G. A. (2021). *Ekonomi makro : teori dan kebijakan*. PT Rajagrafindo Persada.

Putri, H. E., Indrawati Toti, & Widayatsari, A. (2017). PENGARUH EKSPOR, PENANAMAN MODAL ASING, DAN UTANG LUAR NEGERI TERHADAP CADANGAN DEVISA DI INDONESIA. *Jurnal Online Mahasiswa (JOM) Bidang Ilmu Ekonomi*, *4*(1), 240–252. https://jom.unri.ac.id/index.php/JOMFEKON/article/view/12294

Rahardja, P., & Manurung, M. (2008). *Teori Ekonomi Makro: Suatu Pengantar*. Lembaga Penerbit Fakultas Ekonomi Universitas Indonesia.

Resdianto, R. B., Juliannisa, I. A., & Sugianto. (2022). Faktor-Faktor yang Mempengaruhi Cadangan Devisa Indonesia. *Syntax Literate: Jurnal Ilmiah Indonesia*, *7*(1), 1179–1191.

Salvatore, D. (2014). *Ekonomi Internasional* (Ediisi 9, Buku 1). Salemba empat.

Samuelson, P. A., & Nordhaus, W. D. (2004). *Ilmu Makro ekonomi* (M. Sumaryati, Ed.). Media Global Edukasi.

Sari, F. A. (2020). *ANALISIS PENGARUH EKSPOR, INFLASI, DAN NILAI TUKAR TERHADAP CADANGAN DEVISA INDONESIA - UMM Institutional Repository*. https://eprints.umm.ac.id/62473/

Sasono, H. B. (2012). *Manajemen Pelabuhan Dan Realisasi Ekspor Impor* (Bestari, Ed.). Andi.

Savitri, D. (2022). *Devisa: Pengertian, Sumber, Jenis, dan Kegunaannya*. https://www.detik.com/edu/detikpedia/d-6426620/devisa-pengertian-sumber-jenis-dan-kegunaannya

Sukirno, S. (2013). *Makroekonomi Teori Pengantar*. PT RajaGrafindo.

Tambunan, T. T. H. (2001). *Transformasi ekonomi di Indonesia : teori dan penemuan empiris*. Salemba Empat.

Uli, L. B. (2016). Analisis Cadangan Devisa Indonesia. *Jurnal Perspektif Pembiayaan Dan Pembangunan Daerah*, *4*(1), 15–24. https://doi.org/10.22437/ppd.v4i1.3529