THE EFFECT OF INDONESIAN RETAIL BONDS AND INFLATION ON CONVENTIONAL BANK THIRD-PARTY FUNDS

Muhammad Mahameru Munawar, Antonius Agus Susanto*, Haryono
Management Program, STIE Jakarta International College, Indonesia.
*Corresponding Author: agus.susanto@jic.ac.id

ARTICLE INFO

Article History:
Received: December 02, 2021
Revised: January 13, 2022
Published Online: February 25, 2022

Keywords:
Indonesian Retail Bonds, Inflation, Third Party Funds, Conventional Banks, Indonesia Stock Exchange

How to cite:
Munawar, M. M., Susanto, A. A., & Haryono (2022). The Effect of Indonesian Retail Bonds and Inflation on Conventional Bank Third-Party Funds. *International Journal of Digital Entrepreneurship and Business (IDEB)*, *3*(1), 23 – 30. https://doi.org/10.52238/ideb.v3i1.75

ABSTRACT

Banks always implement intermediation as a liaison function between funds collected from the public which are then channeled back to the public in form of loans. This enhances service provision to the public in form of transfer, collection, trade financing, bank guarantees, e-banking, ATM services, and others. As financial institutions, banks possess funds, where most are from the public or called Third Party Funds (TPF). TPF is in form of Current Accounts, Savings, and Time Deposits. Currently, a bank is an important institution for the economy of a country, which functions in the issuance of Government Securities (SBN). Risk-free investments such as time deposits certainly affects the TPF collected. This research aims to determine the Issuance of SBN with the Indonesian Retail Bonds (IRB) series on the growth of TPF. Furthermore, it was conducted between February and August 2020 at the Financial Services Authority (OJK). The panel data regression analysis methodology was applied using the EViews 9 program. It was observed that partially, IRB had no effect on TPF, and inflation partially has a negative effect on TPF. Meanwhile, IRB and inflation have a simultaneous effect on TPF.

INTRODUCTION

Currently, financial institutions, especially banks, play an essential role in the economy of a country. (Jokipii & Monnin, 2013). Banks obtain funds from the public through deposits, current accounts, and savings (Yakubu & Abokor, 2020).

Table 1: Data on State Budget and Its Realization (In trillion rupiah)

Description	Fiscal year		
	2017	**2018**	**2019**
Income	1,736.1	1,894.7	2,165.1
Expenditure	2,133.3	2,220.7	2,461.1
Financing	397.2	325.9	296.0
Income Realization	1,655.7	1,943.7	1,957.2
Expenditure Realization	2,001.6	2,213.1	2,310.2
Financing Realization	364.5	305.7	399.5

Source: Processed Data, 2020

The table above illustrates that in recent years, the government always experienced a deficit from the state budget (Dirgahayu et al., 2021). To cover this deficit, Government Securities (SBN) was issued as a source of government debt (Saleh, 2010).

Based on data from the Ministry of Finance in 2019, the composition of debt instruments in outstanding government debt from 2012 to 2018 experienced an increase from 68.8% to 81.4%. This signified that the government is increasing its debt instruments annually in form of Government Securities (SBN). This research examined the effect of SBN issuance, especially the Indonesian Retail Bonds (IRB) series on other risk-free investment instruments such as deposits (Latifah, 2020).

IRB, as a series of government bonds, is considered a risk-free investment because in general, the possibility of the government defaulting is almost impossible. Meanwhile, deposits are considered risk-free investments because these are third-party funds in banks that are guaranteed by the Deposit Insurance Corporation (DIC).

Another factor affecting the growth of TPF is inflation. Increasing inflation influences the real income received by the public due to an increase in the prices of goods. Consequently, this influences the reduction of TPF deposited by the public in the bank (Jude & Khan, 2014).

Furthermore, TPF is also affected by internal and external factors such as Bank Indonesia (BI) interest rates, Gross Domestic Product, and exchange rates. The BI interest rate will certainly affect the amount of TPF collected because changes in the BI interest rate will affect customer decision-making (Nariman, 2017). The fluctuating exchange rate also affects the price of goods related to exports and imports, hence affecting the amount of investment.

LITERATURE REVIEW

Indonesian Retail Bonds (IRB)

Andry (2005) defined bonds as contractual agreements between issuers and investors in the form of certificates or securities. An investor considers bonds as a provision of financial funds for a certain period. This is in line with the understanding of bonds as debt securities that can be transferred in the medium or long term. Furthermore, it includes promises to pay interest in a certain period and repay the principal at a predetermined time from the issuing party to the bond buyer (IDX, 2021). Rianto et al. (2021) showed that companies get benefits and risks from selecting alternative funds in form of bonds. Additionally, bond maturity starts from 1 year to more than 5 years, and bonds with shorter maturities have less risk than longer ones (Veronica, 2015).

Besides the government, corporations, banking institutions, and non-banking financial institutions can issue bonds by taking into account the business interests of the industry. In making decisions, investors or potential investors certainly expect a return on their investment. Therefore, they should know the yield level of the bonds selected (Balqis & Fitri, 2018). Based on this explanation, there are two mutually beneficial parties, namely the issuer and the bondholder, which contain a statement of debt and an agreement to repay the principal and interest coupons on the due date of payment. In 2006, the Indonesian government, through the Ministry of Finance, issued Indonesian Retail Bonds, also known as IRB (Lumbantobing, 2014). According to Widajati (2009), IRB is in the form of Government Securities (SBN) which are traded to the Indonesian community with retail sales per unit of IDR 1,000,000, a minimum purchase of 5 units, and interbank sales of IDR 10,000,000.00. The retail and interbank sales in the capital market are carried out with the mechanism of Bloomberg and Reuters.

Inflation

One of the indications of the economic stability of a country is the occurrence of inflation. It can describe the weak desire of the public to save and increase spending as well as the tendency of non-productive investment (Anisa & Tripustorini, 2019). This is possibly caused by excess demand in the economy as a whole (Wahab, 2015). Inflation cannot be measured by an increase in only one good unless this increase extends to most other goods. According to Malmendier and Nagel (2015), inflation measurement applies long-term historical data on the Consumer Price Index (CPI).

Third-Party Funds (TPF)

As organizers of the financial system, banks obtain funds from the public, which are also known as Third Party Funds (TPF). Banks pay interest to the public on several deposits according to the agreement (Sudana & Sulistyowati, 2010). Deposits from third parties are the main obligation of banks in claiming finances for households, companies, and the government. DIC as a guarantor of public funds plays a crucial role in supporting the bank's business and becomes the mainstay. The amount of TPF that is relied upon is 80-90% of all funds managed by banks (Hatiana & Pratiwi, 2020).

IRB and Inflation on TPF

As a series of government bonds, IRB is considered a risk-free investment because in general, the possibility of the government defaulting is almost impossible. Meanwhile, deposits in form of third-party funds are considered risk-free investments because they are guaranteed by DIC. Therefore, there is a competition between IRB and time deposits, as both are futures investments that promise a fairly high return annually. When the IRB coupon rises higher than the average interest rate for demand, savings, and time deposits, investors will switch from investing in banks to IRB, which provide safe investments and higher profits, and then becomes an alternative for saving funds by the public. Consequently, bank credit disbursement fell and further disrupted banking liquidity. Yaya and Sofiyana (2018) observed that the profit-sharing of sharia banking retail sukuk had a negative effect on TPF collection.

Inflation has a significant effect on public welfare, especially in value wealth. High inflation increases the cost of living and decreases purchasing power. This certainly reduces the income. Therefore, the public prefers to consume real assets compared to saving their funds in banks. This causes a decrease in the number of funds collected, and vice versa. This is in line with Wibowo and Suhendra (2012); Sopiana (2012); and Bawono and Nasikin (2021), that high inflation reduces bank deposits. However, Fetrian and Herianingrum (2017) observed a positive relationship between inflation and TPF.

Hypotheses & Research Model

Based on the descriptions above, the hypotheses are formulated as follows:

H_1: IRB has a negative effect on the collection of Third-Party Funds.

H_2: Inflation has a negative effect on Third Party Funds.

H_3: IRB and Inflation influence Third Party Funds.

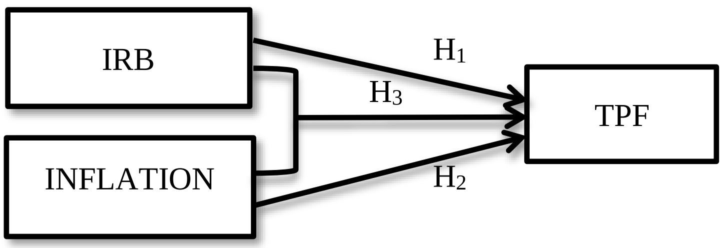

Figure 1: Research Model

METHOD

This research examined the hypotheses on the effect of IRB and Inflation on TPF of conventional banks which are included in the *BUKU* IV category. The required banking statistical data was obtained from OJK (Financial Services Authority), BPS (Central Bureau of Statistics), Ministry of Finance, and BI (Bank Indonesia), inflation data from www.bps.go.id, and IRB issuance from www.kemenkeu.go.id. The population consisted of all conventional banks under the supervision of OJK, totaling 68 banks.

Table 2: Determination of Sample Data

Description	Total
1. Conventional Banks under the supervision of OJK for the period 2012-2019	68
2. Conventional Banks not included in *BUKU* IV	(63)
Total Sample of Conventional Banks	**5**

From 68 conventional banks, five met the requirements, which were then used as samples as follows:

Table 3: Determination of Sample Data

No	Bank Name
1	PT BCA
2	PT CIMB Niaga
3	PT Bank Mandiri (Persero), Tbk
4	PT BNI (Persero), Tbk
5	PT BRI (Persero), Tbk

The measurement scale and method are as shown below:

Table 4: Variable Measurement Scale and Method

Variable	Definition	Scale	Measurement
TPF	Banks receive public funds.	Rupiah	Total deposits, current accounts, and savings amounts.
IRB	Bonds issued by the government	Percent	Interest rate offered.
Inflation	Price increases are general with a certain period	Percent	Inflation rate published by Bank Indonesia on December 31 each year.

RESULT AND DISCUSSION

Inflation data, Indonesian retail bonds, and third-party funds were applied in this research. Due to differences in IRB data units with other variables, the IRB data will be transformed into natural logarithms. The following is data on the conventional bank from 2012 to 2019:

Table 5: TPF Data (in million rupiahs)

Bank Name	Year	TPF	Bank Name	Year	TPF
Bank Central Asia	2012	370,274,199	Bank Rakyat Indonesia	2016	732,558,804
	2013	400,353,625		2017	815,367,842
	2014	447,905,756		2018	915,430,199
	2015	473,666,215		2019	987,405,271
	2016	530,133,625	Bank Mandiri	2012	436,406,952
	2017	581,115,442		2013	492,373,532
	2018	629,812,017		2014	576,561,521
	2019	698,980,068		2015	614,274,382
Bank Negara Indonesia	2012	248,680,806		2016	692,605,943
	2013	280,413,495		2017	737,954,648
	2014	297,709,825		2018	753,553,129
	2015	351,156,766		2019	833,471,318
	2016	411,374,000	Bank Niaga	2012	144,022,137
	2017	486,778,379		2013	157,269,740
	2018	543,337,568		2014	167,957,948
	2019	570,600,221		2015	170,948,459
Bank Rakyat Indonesia	2012	439,152,137		2016	169,942,358
	2013	490,486,513		2017	169,409,238
	2014	605,610,330		2018	167,043,730
	2015	649,372,612		2019	163,014,945

Source: Processed data, 2020

The following is the data on IRB coupon and inflation rate from 2012 to 2019:

Table 6: Data on IRB Coupon and Inflation Rate

Year	IRB Coupon	Inflation Rate
2012	6.25%	4.30%
2013	8.50%	8.38%
2014	8.50%	8.36%
2015	9%	3.35%
2016	6.60%	3.02%
2017	5.85%	3.61%
2018	8.25%	3.13%
2019	6.80%	2.72%

Source: Processed Data, 2019

Descriptive analysis of five conventional banks with calculations for 2012-2019:

Table 7: Results of Descriptive Analysis

Statistics	TPF	IRB	INFLATION
Mean	19.86217	0.074688	0.046088
Median	20.00711	0.075250	0.034800
Maximum	20.71059	0.090000	0.083800
Minimum	18.78548	0.058500	0.027200
Std. Dev.	0.568952	0.011541	0.022432
Observations	40	40	40

Source: Output of EViews

Based on the maximum and minimum IRB and Inflation, as the mean is greater than the standard deviation. Therefore, the deviation is low, and the distribution is even.

The classical assumption test is shown in table 8 below:

Table 8: Classic assumption test

Criteria	Condition	Results
Normality test	P-*value* > 5%	0.089154
Multicollinearity Test	Tolerance value > 10% and VIF value < 10	Tolerance Value > 10% VIF value : 1.27
Heteroscedasticity Test	P-*value* > 5%	74.36%

Source: Output of Eviews

Based on the classical assumption test above, the data are normally distributed and can be continued in this research.

Referring to the model selection test, the most suitable was the random effect model. The following are the results of panel data regression with a random effect model:

Table 9: Results of Panel Data Regression Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.
IRB	2.585296	3.146618	0.821611	0.4166
Inflation	-6.284776	1.618927	-3.882064	0.0004
Constant	19.95873	0.333260	59.88943	0.0000

Source: Output of EViews

The value of the regression coefficient Constant is 19.95873. This signifies that, if IRB and Inflation are at a value of 0, then TPF will be 19.95873. The regression coefficient value of IRB is 2.585296, meaning that every 1% increase in IRB will increase TPF by 2.585296%, with other variables being constant. However, it is not significant at alpha 5%. The Inflation regression coefficient is - 6.284776, therefore every 1% increase in inflation will reduce TPF by 6.284776%, given that other variables are kept constant.

The hypothesis tests are as follows:
IRB had a coefficient value of 2.585296 with a probability of 0.4166, where probability > 0.05, thus H_1 is rejected. This implies that partially or individually, IRB does not have a significant effect on Conventional Bank Deposits, which is in line with Yaya and Sofiyana (2018). Inflation has a coefficient value of -6.284776 with a probability of 0.0004, where probability < 0.05, therefore, H_2 is accepted. This indicates that partially or individually, inflation has a significant effect on conventional bank deposits, which is in line with Sopiana (2012), Fetrian and Herianingrum (2017), and Wibowo and Suhendra (2012).

.

Table 10: Results of Coefficient of Determination Test

R-squared	0.305312	Mean dependent var	2.452042
Adjusted R-squared	0.267762	S.D. dependent var	0.235180
S.E. of regression	0.201246	Sum squared resid	1.498496
F-statistic	8.130678	Durbin-Watson stat	0.865008
Prob(F-statistic)	0.001183		

Source: Output of Eviews

In table 10, the F-statistic value is 0.001183, where the value of the probability is <0.05. With these results, H_3 is accepted, signifying that simultaneously, IRB and inflation significantly influence conventional bank deposits. The coefficient of determination shows that the Adjusted R-Squared value is 0.267762 which means the proportion of the effect of the IRB and Inflation variables on TPF is 26.78%, and the remaining 73.22% are affected by other variables not examined.

CONCLUSION

Indonesian Retail Bonds (IRB) and time deposits (TPF) are long-term investments with high yields annually, both in form of coupons and interest. The two products compete in raising public funds. Current developments have begun to shift public desire to invest from time deposits to IRB. Besides the higher coupon value and guaranteed security, the public trusts their funds more in IRB. The high public trust causes them not to be interested in savings, current accounts, and time deposits with lower interest rates. Consequently, banks experience disruptions in their financial liquidity. This research showed that IRB has a negative effect on TPF. This can be interpreted that the more the public prefers IRB as an alternative investment, the more of a decrease in third-party fund collection.

Apart from IRB, another significant factor of third-party fund collection is inflation. High inflation tends to make the public spend more on consumption in place of saving. Therefore, their real income is reduced due to the high price of goods. Subsequently, public consumption increases, while financial investment decreases. This finding accepts the second hypothesis because if inflation increase and price increase, it will affect public desire to set aside funds to invest, thus TPF will decrease.

The limitations of this research are that there are many other significant factors of TPF besides the variables examined, such as internal factors in form of several offices and promotion costs, as well as external factors such as Gross Domestic Product (GDP) and the Exchange Rate. Additionally, the research objective is only focused on banks that are included in the BUKU IV category, where there are still banks in the BUKU I, II, and III categories. This is conducted to focus more on large banks in Indonesia. Subsequently, further research is suggested to use the bigger samples to obtain better data accuracy.

REFERENCES

Andry, W. (2005). Analisis Faktor-Faktor yang Mempengaruhi Prediksi Peringkat Obligasi. *Buletin Ekonomi Moneter Dan Perbankan*, 243–262.

Anisa, L. S., & Tripustorini, F. A. (2019). Analisis Pengaruh Dana ppihak Ketiga, Non Performing Finance Murabahah, dan Inflasi terhadap Pembiayaan Murabahah pada Bank Umum Syariah di Indonesia. *Jurnal Maps (Manajemen Perbankan Syariah)*, 52–64.

Balqis, A. R. C., & Fitri, M. (2018). Perbandingan Imbal Hasil Sukuk Mudharabah dan Obligasi konvensional (Studi pada perusahaan yang terdaftar di Bursa Efek Indonesia Tahun 2011-2014). *Jurnal Ilmiah Mahasiswa Ekonomi Akuntansi (JIMEKA), 3*(4), 552–558.

Bawono, A., & Nasikin, M. K. (2021). The Analysis of Inflation Effect , Interest Rate and Exchange Rate on Financing : Third-Party Funds as an Intervening Variable of Sharia Banking in Indonesia. Al-Uqud: *Journal of Islamic Economics, 5*(28), 250–274. https://doi.org/10.26740/al-uqud.v5n2.p250-274

Dirgahayu, I., Supriyono, B., Domai, T., & Saleh, C. (2021). The Roles of Assistance, Monitoring, and Evaluation by the Ministry of Internal Affairs on the Improvement of Regional Revenue and Expenditure Budget Quality of Provinces in Indonesia. *Journal of Southwest Jiaotong University, 56*(3), 169–178. https://doi.org/10.35741/issn.0258-2724.56.3.14

Fetrian, R., & Herianingrum, S. (2017). Effect of Profit Sharing, Inflation and Gross Domestic Product (GDP) to the Third-Party Funds of Islamic Banking Indonesia. *Educational Research International*, *6*(May), 66–74.

Hatiana, N., & Pratiwi, A. (2020). Pengaruh dana Pihak ketiga dan Suku Bunga terhadap Profitabilitas pada PT, Bank Mega, Tbk. *Owner: Riset Dan Jurnal Akuntansi*, *4*(2), 1–10.

IDX. (2021). Surat Utang (Obligasi). Idx.Co.Id.

Jokipii, T., & Monnin, P. (2013). The Impact of Banking Sector Stability on The Real Economy. *Journal of International Money and Finance*, *32*(1), 1–16. https://doi.org/10.1016/j.jimonfin.2012.02.008

Jude, E., & Khan, M. (2014). On the Nonlinear Relationship between Inflation and Economic Growth. *Research in Economics*, *68*(2), 133–143. https://doi.org/10.1016/j.rie.2014.01.001

Latifah, S. (2020). Peran Sukuk Surat Berharga Syariah Negara (SBSN) dalam Pertumbuhan Pembangunan Ekonomi Indonesia. *Jurnal Ilmiah Ekonomi Islam*, *6*(03), 421–427.

Lumbantobing, A. L. (2014). Pengaruh Inflasi, Nilai Tukar Rupiah, Suku Bunga Pasar Uang Domestik Dan Suku Bunga Pasar Uang Luar Negeri terhadap Yield To Maturity Obligasi Ritel Indonesia Di Bursa Antar Bank Periode 2010-2013. *Jurnal MIX*, *4*(2), 151–173.

Malmendier, U., & Nagel, S. (2015). Learning from Inflation Experiences. *The Quarterly Journal of Economics Advance Access.*

Nariman, A. (2017). Pengaruh Faktor Internal dan Eksternal Perusahaan terhadap Yield to Maturity Obligasi Korporasi yang terdaftar di Bursa Efek Indonesia. *Jurnal Akuntansi*, *20*(2), 238. https://doi.org/10.24912/ja.v20i2.56

Rianto, Felani, H., & Damayanti, A. (2021). Pengaruh Ukuran, Pertumbuhan dan Umur Obligasi Perusahaan terhadap Peringkat Obligasi (Studi Empiris pada Perusahaan Properti dan Real Estate Yang terdaftar di BEI Periode 2015-2019). *Relevan*, *1*(2), 83–98.

Saleh, A. S. (2010). *The Budget Deficit and Economic Performance: A Survey*. University of Wollongong, Australia.

Sopiana, H. (2012). Analisis Pengaruh Suku SBI dan Inflasi terhadap Penghimpunan Dana Pihak Ketiga (DPK) Perbankan Indonesia. *Jurnal Ekonomi Pembangunan*, *10*(1), 12–30.

Sudana, I. M., & Sulistyowati, C. (2010). Pangsa Pasar Dana Pihak Ketiga dan Return on Assets Bank Umum di Indonesia. *Majalah Ekonomi*, *20*(2), 154–169. https://e-journal.unair.ac.id/JEBA/article/view/4269

Veronica, A. (2015). Faktor-Faktor yang Mempengaruhi Peringkat Obligasi pada Perusahaan Manufaktur. *Jurnal Manajemen Dan Bisnis Sriwijaya*, *13*(2), 2171–2282.

Wahab, A. (2015). Pengaruh PDRB, Inflasi, Suku Bunga Bank Indonesia dan Dana Pihak Ketiga terhadap Penyaluran Kredit pada Bank-Bank Umum Di Sulawesi Selatan. *Ecces (Economics, Social, and Development Studies)*, *2*(1), 1–25. https://doi.org/10.24252/ecc.v2i1.1131

Wibowo, A., & Suhendra, S. (2012). Analisis Pengaruh Nilai Kurs, Tingkat Inflasi, dan Tingkat Suku Bunga terhadap Dana Pihak Ketiga pada Bank Devisa di Indonesia (Periode Triwulan I 2003 - Triwulan III 2008). *Academia*, 1–16.

Widajati, A. (2009). Inflasi dan Tingkat Bunga terhadap Harga Obligasi Negara Ritel yang Diterbitkan Pemerintah. *Jurnal Keuangan Dan Perbankan*, *13*(1), 97 – 105.

Yakubu, I. N., & Abokor, A. H. (2020). Factors Determining Bank Deposit Growth in Turkey : An Empirical Analysis. *14*(2), 121–132. https://doi.org/10.1108/RAMJ-05-2020-0017

Yaya, R., & Sofiyana, E. (2018). Pengaruh Sukuk Ritel Pemerintah terhadap Penghimpunan Dana Pihak Ketiga Bank Syariah. *Media Riset Akuntansi, Auditing & Informasi*, *18*(2), 153. https://doi.org/10.25105/mraai.v18i2.3096