Investment Decision Analysis of Ritail Government Securities

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Abstract. The purpose of this study is to analyze the characteristics, identify and evaluate risk factors in retail SBN bonds ORI023 and ORI024 series in influencing the achievement of individual investment goals. this research method is qualitative and data collection techniques, data analysis techniques regarding the research conducted. The data collection techniques used in this research are documentation and literature studies sourced from relevant secondary data to be studied, namely in the form of stock market price data on the official yahoo finance web, scientific journals, and so on. The findings of this study indicate that the market value of ORI023 in the secondary market is Rp.998,289 and the initial market value of ORI024 is Rp. 1,000,000 which is the same as its nominal price.

Keywords: Retail SBN Bonds, Investment

INTRODUCTION

In a favorable global and Indonesian economic environment, investment is necessary to prepare for the future. overall ensuring human labor and profit generation as it provides returns in the form of recurring passive income. The phenomenon of fierce global competition in the workplace, the possibility of Inflation, accompanied by annual increases in the prices of basic goods, and other economic developments have become major concerns for people who are beginning to consider being economically capable in the future.

Therefore, it would be wise to make a financial plan for the future. For everyone, financial preparation is very important (Dr. Hartono, 2019). Financial instruments are an option among many types of investments that continue to be developed. Apart from being able to rotate the nation's economy directly and indirectly, financial instruments are considered more contemporary. One example is bonds. Bonds are one of the most popular investment instruments in the financial market.

Among the types of bonds that investors can choose from are Government Securities (SBN) including ORI023 (Indonesian Retail Bonds Series 023) and ORI024 (Indonesian Retail Bonds Series 024). The government has manifested retail SBNs aimed specifically at retail or individual investors.

Investing in retail government securities has become very popular among individual investors as it offers various advantages, such as reduced risk compared to stocks, fixed coupon nature, and relatively high liquidity. However, in making the decision to invest in retail SBN,

investors need to conduct a comprehensive valuation analysis. This is important because investing in bonds involves a large amount of money, and an unwise decision can have a significant impact on one's financial portfolio.

The assessment of SBN Retail needs to consider the potential return that can be obtained by investors, in line with the level of risk inherent in these bonds. Retail SBNs have risk characteristics that need to be evaluated, including interest rate risk, inflation risk, and credit risk and aim to generate passive income, pension funds, or other purposes.

Based on Law No. 24 of 2002 concerning Government Securities, it states that bonds with a period of more than 12 (twelve) months are entitled to lower interest and/or coupon payments. So, bonds are an alternative for investors because they are considered safer and more potential. the holder receives the bond along with an agreement that regulates the payment of principal and interest as appropriate (Sutarmin et al., 2022).

This paper focuses on analyzing the government's valuation with reference to the ORI023 and ORI024 studies. The investigation process is presented as a case in the primary and secondary markets. It is expected to help investors, for example, to better understand their financial risks. Will help investors, for example, better understand their financial obligations and risks.

Research Question

How to determine the investment and calculate the value of bonds, in Secondary Market Retail SBN ORI023 and Primary Market ORI024?

Research Objectives

To provide information to individuals or investors on how to determine investments in Retail SBN and how to calculate the value of the bond.

LITERATURE STUDY

Investment and Portfolio Management

Investment management is the process of managing money or assets for profit, and a portfolio is a collection of investment forms of money or assets. In a business structure, an investment manager is usually used to manage funds or money, an investment manager is a person who performs portfolio management. It can also be interpreted that investment managers perform money management functions for the benefit of their company and or the company's clients. Many institutions hire investment managers to manage some of their funds (Sunaryo, n.d.).

Bonds

Bonds, as outlined by (Jogiyanto, 2020) are extended debt instruments that are traded in the medium and long term. Bonds involve a commitment from the issuer to repay the principal amount and offer interest (coupons) to the buyer at specified intervals. This financial instrument operates as a loan agreement with an agreed-upon schedule for principal and interest payments within a specified period of time.

Referring to (Teniwut, 2023), there are three categories of bonds based on the issuer side:

1. Government bonds are secured debt securities issued by the government and are protected by legal frameworks such as laws and finance minister regulations. This makes government bonds attractive to investors due to their low risk of default. In Indonesia, government bonds, including Indonesian Retail State Bonds (ORI), Retail Sukuk (SukRi), Retail Saving Bonds (SBR), and Surat Tabungan Negara (ST), are usually issued annually. It should be noted that Sukuk bonds adhere to the principles of Sharia law.

2. Corporate Bonds

   Corporate bonds are debt instruments issued by government-owned companies. Typically, these bonds have a maturity period of at least one year, although this duration may vary based on factors such as the status of the issuing company, market conditions, and the political landscape of the country where the company is located.

3. Local Government Bonds

   Local government bonds are issued by local governments with the aim of supporting local development initiatives.

Bond Valuation

Bond valuation is a method used to ascertain the intrinsic or theoretical fair value of a bond. This process involves determining the bond's face value (pari value) and valuing the present value of future cash flows from interest payments. By considering these factors, bond valuation assists investors in determining the rate of return required to make a bond investment financially viable.

When a bond is priced below its face value, it is considered to be sold at a discount, while if it is priced above, it is sold at a premium. As the bond approaches maturity, its market value tends to match its face value. (Buana, 2021).

Bond valuation mainly considers two elements: the present value of the anticipated coupon payments and the present value of the eventual repurchase of the bonds, Bond valuation can be calculated using the formula:

$$V_B - PV = \sum_{t-1}^{n} \frac{1}{(1+Kd)t} + \frac{M}{(1+Kd)n}$$

Or

$$V_B = I \text{ (PVIFA, k, n)} + M \text{ (PVIF, k, n)}$$

Where:

VB is the bond value, I is the bond interest / coupon payment, k is the prevailing interest rate, then M is the nominal value of the bond, and n is the remaining payment age (Ni Putu Ari Aryawati, SE., 2022).

Primary Market

As stipulated in Law No. 24 of 2002, the primary market is the placement and initial sale of government securities. On the other hand, the secondary market is the trading of government securities that were previously sold in the primary market. The primary market is also often referred to as the primary market itself. Primary market is a term often used in the context of the stock market or capital market. It refers to the initial stage of offering a company's shares to the public. The primary market is the process by which a company first sells its shares to investors to raise capital. This process occurs before the shares are traded on an open stock exchange.

In the primary market, a company may sell its shares to a group of institutional investors, individuals, or other entities. This is a way to start the process of the company becoming a publicly listed company. During the primary market, the price of the shares is usually determined. This price can be based on an assessment of the company's value, market demand, as well as various other factors. After the primary market, the shares can be traded on an open stock exchange, and their price will be determined by market forces. The primary market is an important step in a company's journey to becoming a public company, and usually involves a lot of regulatory processes and rigorous documentation. This process is also a way for companies to obtain additional capital to expand their business (Sutarmin et al., 2022).

Secondary Market

A secondary market is a market where existing securities or financial assets, such as stocks, bonds, or other financial instruments, are traded among investors after being initially issued in the primary market. The secondary market is where investors buy and sell existing securities between each other, and the company that originally issued the security is not involved in the transaction. In accordance with (Jusmani, 2011) Bonds can be traded outside the stock exchange, so they do not require a physical trading floor. In this case bondholders and potential buyers conduct transactions using electronic means such as email, online trading

platforms, or telephone communication. Some important points about the secondary market include:

1. Liquidity: The secondary market provides liquidity for investors who want to buy or sell securities they own. Liquidity is the ability to convert investments into cash quickly.

2. Prices are determined by market forces: The price of securities in the secondary market is determined by the forces of supply and demand. Prices may go up or down depending on various economic factors, news, and company developments that may affect investors.

3. 3.   No direct influence on the company: Companies that issue securities initially in the primary market are not involved in trading in the secondary market. The price of the shares or bonds in the secondary market does not affect the company directly.

- Open access: Typically, any investor with access to the market can participate in the secondary market, provided they comply with the applicable trading rules and procedures.

- Stock exchange and OTC trading: The secondary market can be a regulated stock exchange or an over-the-counter (OTC) market. On a stock exchange, trading occurs openly and is governed by the rules of the exchange. In OTC markets, trading often takes place through dealers or electronic platforms, and fewer regulations apply.

- The secondary market plays an important role in the financial market ecosystem as it provides investors with the flexibility to buy and sell their securities, create liquidity, and determine prices based on market forces.

RESEARCH METHODS

This research was conducted using qualitative research methods and data collection methods, data analysis methods related to the research conducted. The data collection method used in this research is documentation and literature study of secondary data. What is relevant to study is in the form of stock market price data on the official yahoo finance website, scientific journals, and so on. The research stages start from collecting, filtering, displaying, and drawing conclusions from the data.

Measurement of the bond yield variable uses the YTM or yield to maturity formula, while the independent variable uses the rating indicator issued by SBN retail. Understanding the bond valuation will make investors more confident in making investment decisions. With

a case study ofORI023 and ORI024, this research explains the analytical procedures used in the valuation of government bonds.

THINKING PROCESS FRAMEWORK

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            │  Government Securities   │
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            ┌─────────────────────────┐
            │ Republic Bonds Indonesia │
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  │ Bonds of the      │   │ Bonds of the      │
  │ Republic of       │   │ Republic of       │
  │ Indonesia (ORI023)│   │ Indonesia (ORI024)│
  └───────────────────┘   └───────────────────┘
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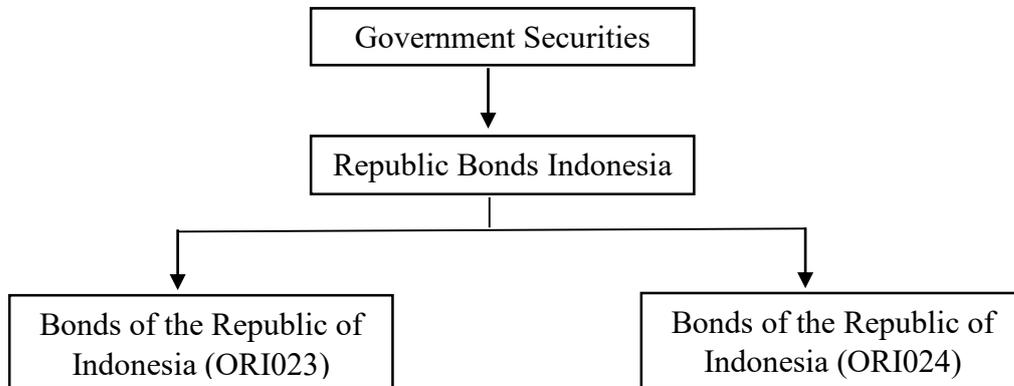
RESEARCH RESULTS AND DISCUSSION

Retail SBNs are issued by the Indonesian government, so the risk of default is likely to be very small, as the Indonesian government has strong fiscal capacity to pay its debts. The small risk of default makes retail SBNs a relatively safe investment instrument for individual investors. Not only that, retail SBN also offers a competitive rate of return which is higher than bank deposits. Retail SBN can also be bought and resold in the secondary market. This can provide flexibility for individual investors to adjust their investment portfolio according to their needs.

Thus, retail SBN ORI023 and ORI024 series can make an attractive investment for individual investors, by offering low risk, competitive returns, and high flexibility. However, there are risk factors that need to be considered when investing in retail SBN. Default risk needs to be considered by looking at conditions in the Indonesian economy and politics in Indonesia, then the risk of changes in interest rates.

This needs to be considered because it can affect the price of bonds, if the interest rate rises, the price of bonds will fall. Because investors will choose to invest in higher interest rates. Furthermore, investors must also consider inflation risk because inflation can reduce the value of money in the future, if inflation rises, the value of money invested by investors decreases.

Valuation of ORI023 in the secondary market

Exactly in 2023, Indonesia issued 8 series of 4 types of retail SBN, including retail government bonds (ORI), the ORI that has been issued is ORI023, which has an offering period in the primary market from June 30, 2023 to July 20, 2023, the date is set on June 26, 2023 and

maturity on July 15, 2026, ORI023 has a coupon percentage of 5.9% per year, fixed, and coupons are paid monthly with a period of 3 years.

Determining the present value of a bond's expected future cash flows is an important step in bond valuation. Some bond valuation methods involve Fair Value Method Valuing a bond based on its current market value. Factors such as current market interest rates and credit risk can affect fair value. Face Value The face value of a bond is the principal amount to be paid back by the issuer at maturity. While this is the value stated on the bond, the actual value may differ depending on market conditions.

(Discounted Cash Flow - DCF) Calculates the present value of the cash flows that a bond is expected to generate over its remaining life. This method considers the time value of money and the discount rate used. Yield to Maturity (YTM) The rate of return that makes the present value of bond cash flows equal to the current market value (Adnyana, 2020). YTM reflects the rate of return expected by bondholders. (Benchmarking Method) Comparing with similar bonds in the market. This involves analyzing other bonds with similar characteristics to obtain an estimate of fair value. Bond valuation can be calculated using the formula:

$$\mathbf{V_B - PV} = \sum_{t-1}^{n} \frac{1}{(1+Kd)t} + \frac{M}{(1+Kd)n}$$

Or

$$\mathbf{V_B = 1\ (PVIFA,\ k,\ n) + M\ (PVIF,\ k,\ n)}$$ (Lukas Setia Atmaja, 2008).

In the ORI023 data, the calculation of the bond value, if the investor buys ORI023 for Rp1000,000.00, it will get income until maturity. The coupon is calculated by taking the value of the nominal amount of the bond purchase, then divided by 12 months (5.9% x Rp1000,000.00) / 12 = IDR 4,917. Final income tax of 10% is then charged at Rp4,425.

The discount rate is the yield that will be received by investors. However, if investors hold the bonds to maturity, the discount rate uses YTM, YTM on October 14, 2023 obtained 6.31% which we have calculated using the nominal value, current market price coupon rate and year to maturity using Microsoft Excel, the remaining bond age (n) used is 32 in accordance with the remaining interest payment period. Then the amount (r) is equal to YTM divided by 32. Furthermore, the coupon is known to be 59,000, because payments are made monthly and the remaining period is 32, the coupon value is divided by (n).

ORI023 Calculation

C (Coupon Amount)=63750	C= 1844
M (Nominal Value)= 1000000	Kd (Profit Level)= 0,20%
YTM= 6,310%	N (Payment)= 32
N (Year Period)= 3	V (bond value)= Rp 998.289

It can be seen in the calculation data above that the higher the YTM, the lower the bond value, and in the calculation above the YTM figure obtained, the value is higher than the ORI023 coupon. Then the resulting bond value shows that the value of ORI023 is also lower than the nominal value of the bond.

By referring to the value of the bond, the determination of the value On October 14, 2023, the market value of ORI023 in the secondary market was IDR998,289 This information can provide guidance for potential investors when buying and selling ORI023 in the secondary market, the price in the secondary market can change following the condition of the BI bank interest rate, if the interest rate falls, the value of the bond reaches a premium value, while if the BI bank interest rate rises, the value of the bond falls, then investor demand for ORI023 can also affect the rise and fall of the bond value, where investors can get a positive difference by buying below the value. And investors can sell it at the value of the bond when the value reaches a premium.

Valuation of 0RI024 in the primary market

ORI024 is the 24th ORI series issued by the government. The ORI024 series is traded in the secondary market for domestic investors with a fixed coupon rate. The placement period of ORI024 is October 8 - November 2, 2023. The maturity date is October 15, 2026. On December 15, 2023, ORI024 ownership is transferable. Therefore, ORI024 is currently not available in the secondary market.

If an investor buys ORI024 during the initial offering at a price of IDR 1,000,000, the investor will get a return on his investment up to a predetermined period consisting of coupon payments and principal repayments. ORI024 offers a fixed coupon rate of 6.10% per annum, with coupon payments made monthly, and has a 3-year tenor.

Multiplying the coupon interest rate by the nominal value of the bond purchase price and dividing it by twelve months, the monthly coupon calculation is (6.10% x Rp1,000,000) / 12 = Rp 5,083 After paying income tax of 10%, the coupon value will be Rp 4,575. The total return until maturity can be calculated by adding up all the coupons received with the nominal value of the bond purchase, namely (maturity x 12 months x coupon after tax) + nominal value of bond purchase = (3 x 12 x Rp 4,575) + Rp 1,000,000 = Rp 1,164,700. So, if investors buy

ORI024 at a price of Rp1,000,000 and hold it until maturity on October 15, 2026, they will get a return of Rp 1,164,700.

In addition to the ORI024 value calculation, using this data, we can calculate YTM by involving a trial and error process in Microsoft Excel. The YTM we obtained is the same as the bond coupon rate of 6.10% because ORI024 is still in the initial market offering process.

ORI024 value calculation

C (Coupon Amount)=61000   C= 1694

M (Nominal Value)= 1000000   Kd (Profit Level)= 0,17%

YTM= 6,10%   N (Payment)= 36

N (Year Period)= 3   V (bond value)= Rp 1.000.000

In the valuation of ORI024, as in the previous valuation of ORI023, it can be calculated that the market value of ORI024 is Rp1,000,000 The value is equal to the par price. ORI024 is a low-risk instrument because the coupon and nominal value have been guaranteed by the government. Potential losses on ORI024 can occur when selling in the secondary market before maturity and when the BI rate rises because the selling price is lower than the purchase price.

CONCLUSIONS

Studies in the valuation of these bonds have shown that the value of the bond value obtains the opposite comparison with the change in yield to maturity, the higher the YTM, the lower the bond value, the bond valuation pays attention to the YTM number. The market value of ORI023 in the secondary market is IDR 998,289 This information can provide recommendations for potential investors in buying and selling ORI023 in the secondary market, prices in the secondary market can change following the condition of BI bank interest rates, if interest rates fall, the value of the bonds reaches a premium value, while if BI bank interest rates rise, the value of the bonds falls, then a lot of investor demand for ORI023 can also affect the rise and fall of bond values, where investors can get a positive difference by buying below that value. And investors can sell it at the value of the bond when the value reaches a premium.

The market value of ORI024 is Rp1,000,000 The value is equal to the par price. ORI024 is a low-risk instrument because the coupon and nominal value have been guaranteed by the government. Potential losses on ORI024 can occur when it is sold in the secondary market before maturity when the BI interest rate rises because the selling price is lower than the

purchase price. Bond valuation can produce a market value that can incentivize and persuade potential investors to make a decision.

ADVICE

For investors who like aggressive risk, they can choose to invest in ORI023 in the secondary market because it is possible to get higher returns. If investors like conservative risks with stable returns, they can choose to invest in ORI024 in the primary market.

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