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"ISFT" НАУЧНО-МЕТОДИЧЕСКИЙ ЖУРНАЛ
"ISFT" SCIENTIFIC-METHODOLOGICAL JOURNAL

www.isft.uz ISSN: *3030-329X* *2024/3-son* www.jurnal.isft-ilm.uz

DISCUSS THE RELATIONSHIP BETWEEN OPTION FREE BOND AND YIELD

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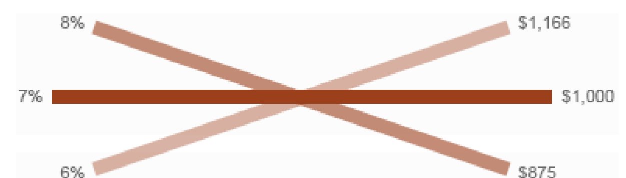
KALIT SO'ZLAR	ANNOTATSIYA
Obligatsiya, daromadlilik, xavflarni pasaytirish, investitsiyalarni qaytarish, obligatsiya qiymati.	Ekonomika sohasida, investitsiya qilish judayam qadrlanadi shu sababdan investitsiyaning muhim aspektlarini o'rganishda mezon sifatida qimmatli qog'oz qadrlanadi, chunki yirik tashkilotlar qimmatli qog'ozlarga ko'proq e'tibor qaratishadi. Ushbu maqolada, nimalarga e'tibor qaratilishi kerakligi hamda xatarlar tushuntirib berilgan va barcha mulohazalar chizmalar hamda aniq ma'lumotlar bilan ko'rsatilgan.
КЛЮЧЕВЫЕ СЛОВА	**АННОТАЦИЯ**
Облигация, доходность, риски понижения рейтинга, доходность инвестиций, стоимость облигации.	В экономике очень ценятся инвестиции, поэтому для изучения важных аспектов инвестиций в качестве критерия приняты ценные бумаги, ибо крупные организации больше внимания обращают именно на облигации. В исследовании указывается, что следует учитывать, и приводятся сведения о связанных с ними рисках; все размышления автора проиллюстрированы графиками и сводками.
KEY WORDS	**ABSTRACT**
Bond, yield, downgrade risks, investment return, bond value.	In the economic sphere, investing becomes the most appreciated so that by looking for the vital aspect in terms investment, to measure it, bond is much more valuable since big organizations pay their attention to the bonds. What should be considered and the risks of it are mentioned in the research and every single details are illustrated with graph and brief information.

Introduction. Fixed rate bonds will fluctuate in price in response to changes in the market discount rate. The relationship between bond prices and market discount rates is inverse. Bond prices decrease when market discount rates increase"

The coupon rate on newly issued bonds is often at or close to the going rate on the market. Bond prices and interest rates are inversely correlated. Thus, while one rises, the other falls. I would like to know how the interest rates in the market would impact the value of bonds that you already own or that you intend to sell to another party. Opportunity cost is the key to the solution. Investors are always comparing the returns on the investments they now own to returns on other investments available in the market. Bond coupons—you know, fixed-become more or less appealing to investors when market interest rates fluctuate. Let's examine an illustration

Assume that the ABC Company issues a new bond with a coupon of 7%. Thus, you spend $70 in



Interest rates and bond prices have an inverse relationship

Result. Assume for the moment that interest rates will typically increase later in the year. The buyer will be hesitant to pay his

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ISSN: *3030-329X* *2024/3-son*

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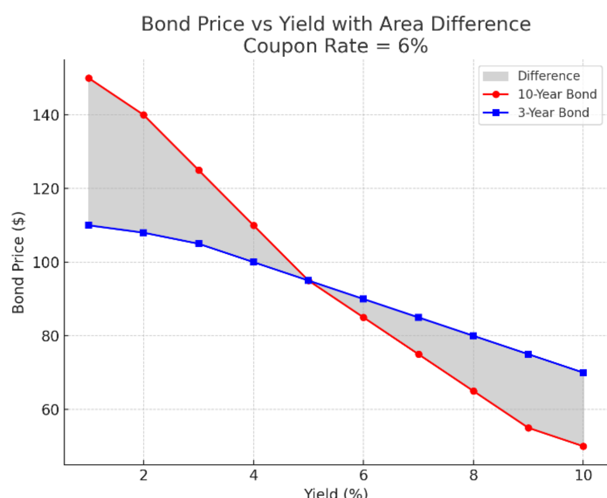
$1,000 face value on his 7-C bond if he pays an 8% coupon on a $1,000 new bond, or $80 annually. In order for the new owner to make approximately 8% profit, the bonds must be sold at a lower price (discount). This translates to a cost of roughly $875.1 in this instance

What if rates fall?

Similarly, when interest rates fall below 7% of the original coupon rate, the bond's value exceeds $1,000. A premium is set because it costs a higher interest rate than is currently available in the market. How long the bond will last to maturity, whether the interest is taxable, the creditworthiness of the issuer, and the likelihood



Higher market interest rates → lower fixed-rate bond prices
Lower market interest rates → higher fixed-rate bond prices

If call option is attached to a bond how does price and yield change

A bond option is a legal agreement that grants the issuer or investor the right to purchase or sell bonds by a given date and at a given price. A call option is an option granted by the issuer to redeem the bond before to its maturity, at the issuer's discretion.

Call options give issuers the ability to benefit from reduced interest rates by refinancing at a lower cost and redeeming bonds earlier. The majority of redeemable bonds come with a lockup period that prevents the issuer from calling the bond. for instance, the lockup time on a 10-year bond might be three years. Three years from the bond's issuance date is the earliest call date that could occur. The time frame for blocking is, say. It is able to span from a few months to a few years. Redeemable bonds include several kinds of redemption features. The call option of a European-style callable bond issuer can only be exercised on the last day of the vesting period. Rolling call provisions apply to American-style callable bonds from the conclusion of the vesting period until maturity. Only the dates listed on the schedule provided may be used to exercise Bermuda-style call options after the vesting period has passed. The bond contract or offer circular has certain dates

Callable Bond Value = Direct Bond Value – Issuer Call Option Value Issuer call option value = Common bond value - Callable bond value Advantages of callable bonds "Callable bonds provide investors higher coupon rates than non-callable bonds, and when issuers borrow money from investors, they can be more flexible with payment schedules and loan terms. A business can save money by borrowing through the issuance of corporate bonds, which have lower interest rates than bank loans"

Cons of Callable Bonds Bonds are typically called in response to a decline in interest rates, which exposes the investor to the risk of the principal being reinvested at a lesser rate

What are important features to look at when considering investing bond?

Compared to money market accounts or certificates of deposit, bonds are riskier but more stable than stocks. They can aid in

portfolio diversification, but they're not the best for making rapid financial gains. The majority of conventional bonds provide very consistent capital returns and interest payments. Purchasing a bond is like giving the issuer a loan that has a due date and needs to be returned. Prior to purchasing any specific bond, you ought to examine: The bond issuer must repay the money it borrowed at maturity. Unless the issuer defaults, you will receive your entire investment back if you retain a bond until maturity. The maturity of short-term bonds is many years. Bonds of a long duration mature between 10 and 30 years

Safe or unsafe

It is important for investors to know if the bonds they are considering are secured or not. Investors view secured bonds as being safer. In the case of default, the issuer of a secured bond agrees to auction off certain assets to cover outstanding debt. Clearly, the yields on secured bonds are often lower than those on unsecured bonds. Bonds that are not secured are called unsecured bonds. The issuer's creditworthiness and good faith are the only assets backing these bonds. When a well-established, long-running business offers bonds, the bonds are not seen as particularly dangerous. In the event that they are granted by a business that is relatively young or has a low credit rating, they are considered high risk

Liquidation Priority When assessing an investment and taking the whole financial picture into account, liquidity might be a crucial consideration. Liquidity is essentially the capacity to turn assets into cash fast. It is also a means of purchasing and disposing of securities without impacting the asset's price. Essentially, liquidity in the context of investment refers to how "easy" it is to buy or sell

Tax jurisdiction "When it comes to investing, an investor's ability to keep money after taxes is just as important as their earnings. As such, picking the appropriate investing strategy might not be as simple as it seems. Tax-exempt bonds are one of his most well-liked investment options, particularly with affluent investors. The good news is that this is an area where investors have some power. You may minimize the tax impact on your investments and increase the tax efficiency of your portfolio with a little preparation. The tax position of your portfolio is significantly more under your control than your exposure to short-term market swings

Value of coupons Since the issuer determines the coupon rate, the issuer's preferences are the most crucial consideration. Bonds with zero coupons are advantageous since they don't require payment at maturity, but even with an adjusted cash flow plan, investors usually pay more for bonds with full coupons. In order to enable them to be sold almost par, a large number of bonds are issued with coupons that are nearly equal to the yields anticipated by the issuer

Callability

It is crucial for investors to realize that a bond's value is impacted when a call option is included in the bond. Bond issuers are more inclined to save money by issuing callable bonds when interest rates decline

1. **Basic Features of a Bond**

Exhibitor Bond issuers are grouped according to how similar their issuers and issuer features are. The World Bank and the European Investment Bank are examples of international institutions that are the primary issuer types

Sovereign (national) governments, including those of Japan and the United States.

Local and non-state governments, like the US state of Minnesota. Edmonton, Canada, or the Catalonia region of Spain. semi-governmental organizations, or organizations supported or owned by the government. as a postal service in numerous nations, such as an Indonesian address, La Poste in France, Correios in Brazil, and

Legal Entity (Issuer Corporation). Market players frequently make a distinction between non-financial issuers and financial relationship issuers, such as banks and insurance companies.

Grown-up The amount of years that a bond's liability lasts is known as its maturity.

Years remaining till the last capital payment. A bond's maturity date is the date that

The issuer Outstanding balance at the time the obligation expires. The bond's maturity date is always mentioned when explaining the bond The day on which the debt becomes due and expires is known as the due date.

Short-term bonds with maturities between one and five years.

Ages 5 to 12 - Intermediate

Long-term: more than 12 years

Maturities can take anything from a few hours to up to thirty years. securities with fixed income Money market securities have an original maturity of one year or less at the time of issue. Securities. Financial market instruments are issued by both firms and governments. Money market instruments include certificates of deposit and commercial paper. Capital market securities are defined as fixed-income securities that had an initial period of more than a year"

TYPES OF RISKS WHEN INVESTING IN BONDS

• Interest rate risk"Bond prices and interest rates are inversely correlated. cost when interest rates decrease The market has seen an overall uptick in bond trading. On the other hand, as interest rates increase, so do prices"

1. Risk of Default. "The possibility that a bond issuer would miss interest payments is known as default risk as well as primary. If the bond issuer loses most of its clients, bondholders can incur losses

2. Credit spread risk. The difference in yields between two bonds that are similar is called a credit spread. Though the credit is different, it's a period. The yield spread is the name for the risk premium. portion the credit spread is the yield spread or risk premium associated with default risk of it stands for the possibility that a widening of credit spreads will result in a reduction of the issuer's liabilities risk of credit spread

3. Downgrade risk. The capacity of a business to function and settle its debts (including personal debts). Big rating companies like Moody's and Standard & Poor's frequently rate issues. The ratings go from 'D' for bonds to 'AAA' for premium investments. Investors give these authorities' decisions and assessments a lot of weight. There would be a downgrade penalty applied to the issue if the company's credit rating was reduced. The issue price decreases as a result. We call this downgrading risk

• Interest rate curve risk. The possibility that market interest rates would move in the opposite direction is known as yield curve risk has to do with fixed income product investments. will alter if the market yields shift impacts bond values. Bond prices decrease when market yields and interest rates rise, and vice versa. Returns are a big deal to investors a curve illustrating the future locations of short-term interest rates and economic growth

2. Sources of Return from Investing in a Bond

Bonds and other fixed income securities, for instance, provide three distinct kinds of returns. These are the following: Reinvestment income, capital gains/losses, and coupon payments received. When a bond buyer purchases a regular bond, the bond issuer will pay the buyer periodic coupons according to the terms of the bond. For instance, his $100 bond with a 5-year maturity, an 8% par value, and a semi-annual coupon payment schedule will yield a $4 coupon payment every five years. The bond's face value of $100 and the last coupon payment are given to the investor upon maturity Losses and gains on capital. Bonds might result in capital losses as well. Securities that are sold for more than the initial cost can result in capital gains. Securities that are sold for less than the acquisition price result in asset losses. • Income Reinvested. Reinvested income is the revenue obtained from reinvesting the regular income (coupon) that bonds give in other securities

References:

1. https://www.merrilledge.com/article/understanding-bonds-and-their-risks#:~:text=Risk%20Considerations%3A%20The%20primary%20risks,prior%20to%20the%20maturity%20date.
2. https://www.investopedia.com/articles/bonds/08/bond-market-basics.asp#:~:text=Key%20Takeaways&text=Some%20of%20the%20characteristics%20of,default%20risk%2C%20and%20prepayment%20risk.
3. https://www.investopedia.com/terms/y/yieldcurve.asp
4. https://mf.nipponindiaim.com/mutualfundarticles/Pages/relationship-between-yield-and-bond-prices.aspx
5. https://www.investopedia.com/terms/b/bond-yield.asp
6. https://www.fidelity.com/learning-center/investment-products/fixed-income-bonds/duration https://financetrain.com/sources-of-return-from-investing-in-a-bond