A PROJECT ON

"FIXED INCOME SECURITIES IN INDIA"

SUBMITTED TO

UNIVERSITY OF MUMBAI FOR PORTAL COMPLETION

OF THE DEGREE OF BACHELOR IN COMMERCE

(FINANCIAL MARKET)

SEMESTER VI 2020-21

SUBMITTED BY

AMEY SUDHAKAR MORE [ROLL NO.334]

UNDER THE GUIDANCE OF

PROFESSOR: NAGRAJ ARABHAVI

UTTARI BHARAT SABHA'S

RAMANAND ARYA D.A. V. COLLEGE

STATION ROAD, BHANDUP EAST, MUMBAI-400079

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CERTIFICATE

This is to certify that **MR. AMEY SUDHAKAR MORE** has worked and duly completed her Project work for the degree of Bachelor in Commerce (Financial Market) under the faculty of Commerce in the subject of Project Work and her/his project is entitled, **'FIXED INCOME SECURITIES IN INDIA'** under my supervision.

I further certify that the entire work has been done by the learner under my guidance and that no part of it has been submitted previously for any Degree or Diploma of any University.

It is her own work and facts reported by her personal findings and investigation.

Date _____

-

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Mrs. Chandrakala Srivastava

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Project Guide/ Internal Examiner

Prof. Nagraj Arabhavi

External Examiner

DECLARATION BY LEARNER

I, the undersigned **MR. AMEY SUDHAKAR MORE** here by, declare that the work embodied in this project work titled, **"FIXED INCOME SECURITIES IN INDIA"** forms my own contribution to the research work carried out under the guidance of **MR. NAGRAJ ARABHAVI** is a result of my own research work and has not been previously submitted to any other University for any other Degree/Diploma to this or any other University.

Whenever reference has been made to previous works of others, it has been clearly indicated as such and included in bibliography.

I, here by further declare that all information of this document has been obtained and presented in accordance with academic rules and ethical conduct.

MR. Amey Sudhakar More

Name & signature of the learner

Certified
by

Mr. Nagraj Arabhavi

Name & signature of the professor

Acknowledgment

To list who all have helped me is difficult because they are so numerous and depth is so enormous.

I would like to acknowledge the following as being idealistic channels and fresh dimensions in the completion of this project.

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CHAPTER- 1 INTRODUCTION

1. What are Fixed Income Securities in India?

Fixed income securities refer to debt instruments that offer a fixed interest income on your investment. The corpus value that one will get post maturity of the securities is known in advance. Because of this, risk-averse investors prefer fixed income securities over market-linked securities; these securities are apt for such people who want to earn steady returns as well.

Also, some of the fixed income securities like government bonds, treasury bills are backed by the government which ensures minimal chances of default.

2. Meaning and definition of fixed income securities.

- **Meaning:**

Fixed income broadly refers to those types of investment security that pay investors fixed interest or dividend payments until its maturity date. At maturity, investors are repaid the principal amount they had invested. Government and corporate bonds are the most common types of fixed-income products. Unlike equities that may pay no cash flows to investors, or variable-income securities, where can payments change based on some underlying measure such as short-term interest rates the payments of a fixed-income security are known in advance.

In addition to purchasing fixed income securities directly, there are several fixed-income, exchanges-traded funds (ETFs) and mutual funds available.

- **Understanding Fixed Income:**

Companies and governments issue debt securities to raise money to fund day-to-day operations and finance large projects. For investors, fixed-income instruments pay a set interest rate return in exchange for investors lending their money. At the maturity date, investors are repaid the original amount they had invested— known as the principal.

- **Definition:**

A fixed-income security is an investment that provides a return in the form of fixed periodic interest payments and the eventual return of principal at maturity. Unlike variable-income securities, where payments change based on some underlying measure such as short-term interest rates the payments of a fixed-income security

are known in advance.

3. History of Indian fixed income market.

- The Indian debt market has traditionally been a wholesale market with participation restricted to few institutional players – mainly banks. The banks were the major participants in the government securities market due to statutory requirements. The turnover in the debt market too was quite low a few hundred crores till the early 1990s. The debt market was fairly underdeveloped due to the administrated interest rate regime and the availability of investment avenues which gave a higher rate of return to investors.
- In the early 1990s, the government needed a large amount of money for investment in development and infrastructure projects. The government realized the need of a vibrant, efficient and healthy debt market and undertook reform measures. The Reserve Bank put in substantial efforts to develop the government securities market but its two segments, the private corporate debt market and public sector undertaking bond market, have not yet fully developed in terms of volume and liquidity.
- It is debt market which can provide returns commensurate to the risk, a variety of instruments to match the risk and liquidity preferences of investors, greater safety and lower volatility. Hence the debt market has a lot of potential for growth in the future. The debt market is critical to the development of a developing country like India which requires a large amount of capital for achieving industrial and infrastructure growth.
- Regulation of Debt Market: The Reserve Bank of India regulates the government securities market and money market while the corporate debt market comes under the purview of the Securities Exchange and Board of India (SEBI).
- In order to promote an orderly development of the market, the government issued a notification on March 2, 2000 delineating the areas of responsibility between the Reserve Bank and SEBI. The contracts for sale and purchase of government securities, gold related securities, Money market securities and securities derived from these securities and ready forward contracts in debt securities shall be regulated by the Reserve Bank. Such contracts, if executed on the stock exchanges shall, however, be regulated by SEBI in manner that is consistent with the guidelines issued by the Reserve Bank.

4. characteristics of fixed income securities.

- **Stable Returns:**

One of the primary benefits of investing in fixed income securities is the stability of returns that they offer. Since these instruments have a fixed interest rate, the returns delivered by them are more or less steady. This makes them a comparable alternative to bank savings accounts which give a minimal interest rate on your deposits.

- **Safety of Investment:**

The invested capital in a fixed income security is at lower risk when compared to investment in equities. As some of these instruments, such as treasury bills or government bonds, are backed by the government, the chances of defaulting on the payment of interest and principal are almost zero. Also, if the instrument is highly rated by the credit rating agencies such as CRISIL, the possibility of an investor incurring a loss is minuscule. This makes fixed income financial instruments, one of the safest investment avenues available in the market.

- **Portfolio Diversification:**

Investment in fixed income securities offer a much-needed diversification to a concentrated portfolio of equities. It is a well-known fact that equities deliver much higher returns than debt securities, however the volatility of returns delivered by the former is much higher than that of the latter. To make your overall portfolio returns stable, it is imperative that you make a significant investment in highly rated debt securities.

- **Priority during Liquidation:**

When the company files for bankruptcy and goes for liquidation, it is liable to pay back to its debtors and stock holders. However, it might not have enough assets to pay off both. In that case, lenders of the company, who hold corporate bonds of the firm get priority over those who hold equity. This is one more reason why debt security is considered to be a safe investment avenue.

5. Top 5 reasons why you need fixed income securities.

- **Steady Returns:**

The biggest advantage of a fixed income security is that you are guaranteed a steady return on investment for a specific period of time. For example, if you invest in 3-year bonds at 3%, then you will receive 3 percent return on your investment every year for three years. It is guaranteed. Under no condition shall the return go low even to 2.99%. In contrast, with a variable income security, you have zero control over how much return you can get per year. Maybe you will receive a 5% return this year, and then 0% for the next three years. If you are unable to live with this uncertainty, then it is better that you only consider investing in fixed income

securities. And in case you are interested in exploring the possibility of investing in bonds, check out Best-Savings-Rate.co.uk to know some of the best bonds in the market right now.

- **Safety of Deposit:**

When it comes to the matter of safety of deposit, fixed income securities again outshine the variable ones. Most fixed income securities will always specify the date on which the invested amount will be returned to the investor. As such, those who issue fixed securities are legally obliged to return back the money right on the specified date, failing which legal action can be taken against them for recovering the amount. For example, a government bond will typically specify the maturity date on which the invested amount will be paid back. In contrast, there is usually no such safety of deposit guaranteed by any variable income securities. If you invest in stocks, then a large value of that investment can be wiped out if the company performance dips and stock prices crash.

- **Diversity:**

A well-balanced portfolio will include both high-risk investments that offer high profits and low-risk investments that guarantee the stability of the principal. A portfolio that is only focused on making as much profits as possible without being concerned about the capital is likely to go bust due to excessive risk-taking. And as an investor, you can end up as a pauper if you follow such a high-risk investment strategy. The best way to protect your financial future is to invest an equal amount in fixed income securities. This way, even if the high-risk investments are wiped out, you still have the fixed income securities to rely on.

- **Priority During Company Liquidation:**

Fixed income securities can also get priority over other securities during company liquidation. For example, corporate bonds are considered to be debts that the business owes to the investors. And since companies are required to honour their obligations to their debtors prior to the shareholders, bonds will be paid off first from the proceeds of the company liquidation. As such, by investing in company bonds rather than shares, you can be assured of a better protection of your investment if the business were to be declared bankrupt.

- **Higher Priority Claim to Assets:**

Fixed-income investors also benefit from their position in the capital structure of an entity, issuing both equity and debt investments. Investors in bonds of a corporation have a higher priority over common and preferred stockholders of the same corporation should the company declare bankruptcy or be liquidated.

6. Factors That Affect the Price of Fixed-Income Securities.

Fixed-rate capital securities have certain risks in common with other fixed-income securities. These risks affect the market price of the securities, which in turn affects their yield. In general, investors demand higher yields to compensate for higher risks. The risks of fixed-income securities include:

- **Interest Rate Risk:**

The market value of the securities will be inversely affected by movements in interest rates. When rates are rising, market prices of existing debt securities will fall, as demand increases for new-issue securities with the higher rates. As prices decline, yields are brought into line with the prevailing rates. When rates are falling, market prices will rise, because the higher rates on outstanding debt securities will be more valuable. Here, too, the market works to align the yields with prevailing rates. Downward trends in interest rates also create reinvestment risk, or the risk that income or principal repayments will have to be invested at lower rates. Reinvestment risk is an important consideration for investors in "callable" securities.

- **Credit Risk:**

The safety of a fixed-income investor's principal depends on the issuer's credit quality and ability to meet its financial obligations. Issuers with lower credit ratings usually have to offer investors higher yields to compensate for the additional credit risk. A change in either the issuer's credit rating or the market's perception of the issuer's business prospects will affect the value of its outstanding securities.

- **Purchasing Power Risk:**

Fixed-income investors often focus on the real rate of return, or the actual return minus the rate of inflation. Rising inflation has a negative impact on real rates of return, because inflation reduces the purchasing power of the investment income and principal.

- **Price Risk:**

Investors who need access to their principal prior to maturity have to rely on the available market for the securities. Although investors in fixed-rate capital securities may take advantage of the exchange listing for retail offerings to sell their shares prior to maturity, the price received may be more or less than the purchase price as a result of these dynamic risk factors.

7. Three types of fixed income securities

A. Bonds

➢ What is bond?

- **Meaning –**

A bond is a fixed income instrument that represents a loan made by an investor to a borrower (typically corporate or governmental). A bond could be thought of as an I.O.U. between the lender and borrower that includes the details of the loan and its payments. Bonds are used by companies, municipalities, states, and sovereign governments to finance projects and operations. Owners of bonds are debtholders, or creditors, of the issuer. Bond details include the end date when the principal of the loan is due to be paid to the bond owner and usually includes the terms for variable or fixed interest payments made by the borrower.

- **Definition:**

A bond is a loan to a company or government that pays investors a fixed rate of return over a specific timeframe. Bonds are loans made to large organizations.

These include corporations, cities, and national governments. An individual bond is a piece of a massive loan. That's because the size of these entities requires them to borrow money from more than one source. Bonds are a type of fixed-income investment. The other types of investments are cash, stocks, commodities, and derivatives.

➢ Who are the issuers of a bond?

Bonds are issued as forms of tradable debt. The bond issuer is the borrower, while the bondholder or purchaser is the lender. At the maturity of the bond, bond issuers repay the bondholder the principal value.

There are many types of bond issuers which are as follow -

- **Firms:**

The most common type of bonds is issued by firms. Firms issue bonds when they require funds to finance projects or working capital. Firm bonds can range between the whole spectrum of bond ratings, as provided by the S&P ratings board, for example. Firms may even issue different classes of bonds, with differing bond characteristics. Accordingly, a firm with a specific credit rating may have bond issues that are not necessarily in line with that credit rating. For example, Hershey's may issue bonds that are AA rated, even if the company itself is wholly rated as an AAA company.

Coupon payments from firm bonds may be paid through regular operations, or other indirect sources, such as lines of credit, revolving debt, or even more bond.

- **Governments:**

The second most common type of bonds are issued by governments. The US Treasury Bond is a great example of this type of bond issuer. Government bond ratings are typically very high, although this can depend on the specific government issuing the bond. A bond issued by a developing country's government will naturally be riskier and lower rated than a bond issued by a developed country. The US Treasury Bond is a very highly rated bond, such that the yields on these bonds are often taken as the risk-free rate when performing financial calculations, such as calculating the cost of equity under the CAPM. Coupon payments for government bonds are typically paid out from government revenue, such as taxes.

- **Supranational Entities:**

Supranational entities refer to global entities that are not based in a specific nation. More specifically, a supranational entity has members that exist in multiple countries. Examples of supranational entities that issue bonds are the World Bank or the European Investment Bank. Like government bonds, these bonds are typically quite highly rated. A supranational entity may issue bonds to fund its operations, and pay out coupon payments through operational revenue.

- **Regions and Municipalities:**

Smaller municipalities may issue bonds in a similar matter to governments. These bonds will usually be rated similarly to the over-encompassing government. While the bonds themselves are not issued by the government, they are typically backed by the full faith of that government.

- **Special project and spv:**

Firms or governments may issue bonds for special projects or through special purpose vehicles. These bonds are tied to a specific project, such as an infrastructure build. The bond proceeds are then used to finance that project, and the coupon payments and principal are paid out through the project's revenue.

➢ How does a bond work?

bonds are commonly referred to as fixed income securities and are one of three asset classes individual investors are usually familiar with, along with stocks (equities) and cash equivalents. Many corporate and government bonds are publicly traded; others are traded only over-the-counter (OTC) or privately between the

borrower and lender. When companies or other entities need to raise money to finance new projects, maintain ongoing operations, or refinance existing debts, they may issue bonds directly to investors. The borrower (issuer) issues a bond that includes the terms of the loan, interest payments that will be made, and the time at which the loaned funds (bond principal) must be paid back (maturity date). The interest payment (the coupon) is part of the return that bondholders earn for loaning their funds to the issuer. The interest rate that determines the payment is called the coupon rate. The initial price of most bonds is typically set at par, usually $100 or $1,000 face value per individual bond. The actual market price of a bond depends on a number of factors: the credit quality of the issuer, the length of time until expiration, and the coupon rate compared to the general interest rate environment at the time. The face value of the bond is what will be paid back to the borrower once the bond matures. Most bonds can be sold by the initial bondholder to other investors after they have been issued.

In other words, a bond investor does not have to hold a bond all the way through to its maturity date. It is also common for bonds to be repurchased by the borrower if interest rates decline,

or if the borrower's credit has improved, and it can reissue new bonds at a lower cost.

➢ Characteristics of bond:

Most bonds share some common basic characteristics including:

- **Face value:**

is the money amount the bond will be worth at maturity; it is also the reference amount the bond issuer uses when calculating interest payments. For example, say an investor purchases a bond at a premium $1,090 and another investor buys the same bond later when it is trading at a discount for $980. When the bond matures, both investors will receive the $1,000 face value of the bond.

- **The coupon rate:**

It is the rate of interest the bond issuer will pay on the face value of the bond, expressed as a percentage. For example, a 5% coupon rate means that bondholders will receive 5% x $1000 face value = $50 every year.

- **Coupon dates:**

are the dates on which the bond issuer will make interest payments. Payments can be made in any interval, but the standard is semi-annual payments.

- **The maturity date:**

Is the date on which the bond will mature and the bond issuer will pay the bondholder the face value of the bond.

- **The issue price:**

Is the price at which the bond issuer originally sells the bonds.

➢ Types of bonds-

Following are the types of bonds

- **Fixed rate bonds:**

In Fixed Rate Bonds, the interest remains fixed throughout the tenure of the bond. Owing to a constant interest rate, fixed rate bonds are resistant to changes and fluctuations in the market

- **Floating rate bonds:**

Floating rate bonds have a fluctuating interest rate (coupons) as per the current market reference rate.

- **Zero Interest Rate Bonds:**

Zero Interest Rate Bonds do not pay any regular interest to the investors. In such types of bonds, issuers only pay the principal amount to the bond holders.

- **Inflation Linked Bonds:**

Bonds linked to inflation are called inflation linked bonds. The interest rate of Inflation linked bonds is generally lower than fixed rate bonds.

- **Perpetual Bonds:**

Bonds with no maturity dates are called perpetual bonds. Holders of perpetual bonds enjoy interest throughout.

- **Subordinated Bonds:**

Bonds which are given less priority as compared to other bonds of the company in cases of a close down are called subordinated bonds. In cases of liquidation, subordinated bonds are given less importance as compared to senior bonds which are paid first.

- **Bearer Bonds:**

Bearer Bonds do not carry the name of the bond holder and anyone who possesses the bond certificate can claim the amount. If the bond certificate gets stolen or misplaced by the bond holder, anyone else with the paper can claim the bond amount.

- **War Bonds:**

War Bonds are issued by any government to raise funds in cases of war.

- **Serial Bonds:**

Bonds maturing over a period of time in instalments are called serial bonds.

- **Climate Bonds:**

Climate Bonds are issued by any government to raise funds when the country concerned faces any adverse changes in climatic condition.

➢ Categories of bond-

There are four primary categories of bonds sold in the markets. However, you may also see foreign bonds issued by corporations and governments on some platforms.

- **Corporate bonds:**

Are issued by companies. Companies issue bonds rather than seek bank loans for debt financing in many cases because bond markets offer more favourable terms and lower interest rates.

- **Municipal bonds**:

Are issued by states and municipalities. Some municipal bonds offer tax-free coupon income for investors.

- **Government bonds:**

Such as those issued by the U.S. Treasury. Bonds issued by the Treasury with a year or less to maturity are called “Bills”; bonds issued with 1–10 years to maturity are called “notes”; and bonds issued with more than 10 years to maturity are called “bonds”. The entire category of bonds issued by a government treasury is often collectively referred to as "treasuries." Government bonds issued by national governments may be referred to as sovereign

- **Agency bonds:**

Are those issued by government-affiliated organizations such as Fannie Mae or Freddie Mac

➢ Bond rating

- A bond rating is a grade given to a bond by a rating service that indicates its credit quality. The rating takes into consideration a bond issuer's financial strength or its ability to pay a bond's principal and interest in a timely fashion.
- Moody's, Standard and Poor's, Fitch Ratings, and DBRS are some of the most internationally well-known bond-rating agencies. These organizations operate to provide investors with quantitative and qualitative descriptions of the available fixed income securities. Generally, a "AAA" high-grade rated bond offers more security and lower profit potential (lower yield) than a "B-" rated speculative bond.
- For a financial institution, ratings are developed based on specific intrinsic and external influences. Internal factors include such traits as the overall financial strength rating of the bank a risk measure illustrating the probability that the institution will require external monetary support (Moody's implements a scale where A corresponds with a financially healthy bank, and E resembles a weak one). The rating depends on the financial statements of the firm under analysis and the corresponding financial ratios.
- External influences include networks with other interested parties, such as a parent corporation, local government agencies, and systemic federal support commitments. The credit quality of these parties must

also be researched. Once these external factors are analyzed, a comprehensive overall external score is given. Essentially, this grade is added to the predetermined "intrinsic score" to obtain the overall grade like BBB.

BOND RATING

S&P/Fitch	Moody's	Grade	Risk
AAA	Aaa	Investment	Highest quality
AA	Aa	Investment	High quality
A	A	Investment	Strong
BBB	Baa	Investment	Medium
BB/B	Ba/B	Junk	Speculative
CCC/CC/C	Caa/Ca	Junk	Highly speculative
D	C	Junk	Default

➢ Pricing of bonds.

- **Definition:**

Bond price is the present discounted value of future cash stream generated by a bond. It refers to the sum of the present values of all likely coupon payments plus the present value of the par value at maturity. To calculate the bond price, one has to simply discount the known future cash flows.

The price of a bond and its yield-to-maturity are negatively correlated to each other. When the yield-to maturity is higher than the coupon rate, the price of a bond is less than the face value and vice-versa. Usually, bonds are issued at coupon rates close to the prevailing interest rate, so that they can be sold close to their face values. as time passes, bonds frequently trade at prices that are different from their face values. While two parties can agree on a price and execute a trade, a vast majority of bonds are sold either through a public sale or through an exchange platform and the price of the bond is thus determined by the market, and as a result, may vary every minute. as time passes, bonds frequently trade at prices that are different from their face values. While two parties can agree on a price and execute a trade, a vast majority of bonds are sold either through a public sale or through an exchange platform and the price of the bond is thus determined by the market, and as a result, may vary every minute. When interest rates rise, bond prices fall, which results in a rise in yields of the older bonds and brings them into the same category as newer bonds being issued with higher coupons and vice-versa.

➢ What is YTM?

The yield-to-maturity (YTM) of a bond is another way of considering a bond's price. YTM is the total return anticipated on a bond if the bond is held until the end of its lifetime. Yield to maturity is considered a long-term bond yield but is expressed as an annual rate. In other words, it is the internal rate of return of an investment in a bond if the investor holds the bond until maturity and if all payments are made as scheduled. YTM is a complex calculation but is quite useful as a concept evaluating the attractiveness of one bond relative to other bonds of different coupon and maturity in the market. The formula for YTM involves solving for the interest rate in the following equation, which is no easy task, and therefore most bond investors interested in YTM will use a computer:

YTM=*n*present Value Face Value −1

We can also measure the anticipated changes in bond prices given a change in interest rates with a measure known as the duration of a bond. Duration is expressed in units of the number of years since it originally referred to zero-coupon bonds, whose duration is its maturity.

For practical purposes, however, duration represents the price change in a bond given a 1% change in interest rates. We call this second, more practical definition the modified duration of a bond.

The duration can be calculated to determine the price sensitivity to interest rate changes of a single bond, or for a portfolio of many bonds. In general, bonds with long maturities, and also bonds with low coupons have the greatest sensitivity to interest rate changes. A bond's duration is not a linear risk measure, meaning that as prices and rates change, the duration itself changes, and convexity measures this relationship.

➢ Who exactly regulates the bond markets and the debt markets in India?

As debt market trade both government and corporate debt instruments, we have following two regulators who work in conjunction with one another:

- **Reserve Bank of India (RBI):**

It regulates and also facilitates the government bonds and other securities on behalf of governments. It regulates bond markets from the overall government debt management point of view and also keeps a tab on the impact that the debt program of the government has on the interest rates and yields in the economy.

➢ **Securities and Exchange Board of India (SEBI):**

It regulates corporate bonds, both PSU (Public sector undertaking) and private sector. SEBI is more focused on maintaining the integrity of the trading mechanism and to ensure that the interests of the investors are broadly protecting and they are conscious of the risks involved.

B. Treasury bills

➢ What are treasury bills?

Treasury bills are money market instruments issued by the Government of India as a promissory note with guaranteed repayment at a later date. Funds collected through such tools are typically used to meet short term requirements of the government, hence, to reduce the overall fiscal deficit of a country. They are primarily short-term borrowing tools, having a maximum tenure of 364 days, available at zero coupons (interest) rate. They are issued at a discount to the published nominal value of government security (G-sec).

Treasury bills or T-bills have zero-coupon rates, i.e. no interest is earned on them. Individuals can purchase T-bills at a discount to the face/value. Later, they are redeemed at a nominal value, thereby allowing the investors to earn the difference. For example, an individual purchase a 91-day T-bill which has a face value of Rs.100, which is discounted at Rs.95. At the time of maturity, the T-bill holder gets Rs.100, thus resulting in a profit of Rs.5 for the individual.

Therefore, it is an essential monetary instrument that the Reserve Bank of India uses. It helps RBI to regulate the total money supply in the economy as well as raising funds.

➢ Types of treasury bills-

Four types of treasury bills are auctioned. The primary distinction for these treasury bills (T-bills) is their holding period.

- **14day treasury bills:**

These bills complete their maturity on 14 days from the date of issue. They are auctioned on Wednesday, and the payment is made on the following Friday. The auction occurs every week. These bills are sold in the multiples of Rs.1lakh and the minimum amount to invest is also Rs.1lakhs.

- **91day treasury bills:**

These bills complete their maturity on 91 days from the date of issue. They are auctioned on Wednesday, and the payment is made on the following Friday. They are auctioned every week. These bills are sold in the multiples of Rs.25000 and the minimum amount to invest is also Rs.25000.

- **182day treasury bill:**

These bills complete their maturity on 182 days from the date of issue. They are auctioned on Wednesday, and the payment is made on the following Friday when the term expires. They are auctioned every alternate week. These bills are sold in the multiples of Rs.25000 and the minimum amount to invest is also Rs.25000.

- **364day treasury bills:**

These bills complete their maturity 364 days from the date of issue. They are auctioned on Wednesday, and the payment is made on the following Friday when the term expires. They are auctioned every alternate week. These bills are sold in the multiples of Rs.25000 and the minimum amount to invest is also Rs.25000. As mentioned above, the holding period for each bill remains constant. However, the face value and the discount rates of treasury bills can change periodically. This depends on the funding requirements and monetary policy of RBI along with total bids received.

Also, The Reserve Bank of India issues treasury bills calendar for auction. It announces the exact date of the auction, the amount to be auctioned and the maturity dates before every auction.

➢ Features of treasury bills

- **Form:**

T-bills are issued either in physical form as a promissory note or dematerialised form by crediting to Subsidiary General Ledger (SGL) Account.

- **Eligibility:**

Individuals, firms, companies, trust, banks, insurance companies, provident funds, state government and financial institutions are eligible to invest in treasury bills.

- **Minimum Bid:**

The minimum amount of bid is Rs. 25000 and in multiples thereof.

- **Issue price:**

T-bills are issued at a discount, but redeemed at par.

- **Repayment:**

The repayment of the bill is made at par on the maturity of the term.

- **Availability:**

Treasury bills are highly liquid negotiable instruments, that are available in both financial markets, i.e., primary and secondary.

Method of the auction: Uniform price auction method for 91 days T-bills, whereas multiple price auction method for 364 days T-bill.

- **Day count:**

The day count is 364 days, in a year, for treasury bills.

Besides this, other characteristics of treasury bills include market-driven discount rate, selling through auction, issued to meet short-term mismatches in cash flows, assured yield, low transaction cost, etc

➢ How to calculate yield on treasury bills?

To calculate the yield, the comparison of par value to its face value is the first step. Additionally, investment returns are more useful when expressed on an annualized basis. The next step is to use the maturity period to convert the return to an annual percentage.

You can calculate the yield of treasury bills through the following formula –

Y= (100-P)/P * [(365/D) *100], where

Y – Yield/ return percentage of T-bill

P – The discounted price of the T-bill purchased

D – Tenure of T-bill

Let's understand this with an illustration. If RBI issues a 91- Day treasury bill at the discounted price of Rs.97 while the face value of the bill is Rs.100, the yield of the security can be determined as follows –

Yield = [(100-97)/97] *(365/91*100)

= 12.40%

By annualizing the returns, a shorter Treasury bill can be compared with the following:

Long-dated Treasury bill

Government bond

Corporate bond

Treasury bond

Any other type of fixed income investment instruments

➢ Advantages and limitations of treasury bills

❖ Advantage:

Treasury bills investments come with many advantages as it provides safety and security to its investors.

- **Risk free:**

Treasury bills is a popular short term government security. The Central government backs them. They act as a liability to the Indian government as they need to be paid within a stipulated time. Therefore, investors have total security on their funds invested as they are backed by the government of India, I.e., the highest authority in the country. The amount has to be paid to the investors even during the crisis.

- **Highly liquid:**

Treasury bill has a highest maturity period of 364 days. They help in raising money for short term requirements for the economy. Individuals who are looking for short term investments can park their funds here. Also, T-bills can be sold in the secondary market. This allows investors to convert their holding into cash during any emergency.

- **Bidding:**

Treasury bills are usually auctioned by RBI every week. This allows the retail investors to place their non-competitive bids. This increases the exposure of investors to the government bond market, which creates higher cash flows to the capital market.

❖ **Limitations:**

Compared to other stock market investment tools, treasury bills yield lower returns as they are government-backed debt securities. Treasury bills are zero-coupon bonds, i.e., no interest is paid on them to investors.

They are issued at a discount and redeemed at face value. Therefore, the returns earned by investors in T-bills remains fixed throughout the bond tenure irrespective of the economic condition of the country. Stock market variations influence the returns generated by equity, equity fund, debt fund and debt instruments. Subsequently, when the stock market moves upwards, the yield generated by equity, equity fund, debt fund or debt instruments is also higher. However, the returns generated by T-bills remain fixed irrespective of the financial market movements.

➢ What influences T-bill prices?

T-Bill prices fluctuate similarly to other debt securities. Many factors can influence T-Bill prices, including macroeconomic conditions, monetary policy, and the overall supply and demand for Treasuries.7

- **Maturity Dates:**

T-Bills with longer maturity dates tend to have higher returns than those with shorter maturities. In other words, short-term T-bills are discounted less than longer-dated T-bills. Longer-dated maturities pay higher returns than short-dated bills because there's more risk priced into the instruments meaning there's a greater chance that interest rates could rise. Rising market interest rates make the fixed-rate T-bills less attractive.

- **Market Risk:**

Investors' risk tolerance affects prices. T-Bill prices tend to drop when other investments such as equities appear less risky, and the U.S. economy is in an expansion. Conversely, during recessions, investors tend to invest in T-Bills as a safe place for their money spiking the demand for these safe products. Since T-bills are backed by the full faith and credit of the U.S. government, they're seen as the closest thing to a risk-free return in the market.

- **The Federal Reserve:**

The monetary policy set by the Federal Reserve through the federal funds rate has a strong impact on T-Bill prices as well. The federal funds rate refers to the interest rate that banks charge other banks for lending them money from their reserve balances on an overnight basis. The Fed increase or decrease the fed funds rate in an effort to contract or expand the monetary policy and the availability of money in the economy. A lower rate allows banks to have more money to lend while a higher fed funds rate decreases money in the system for banks to lend. As a result, the Fed's actions impact short-term rates including those for T-bill. A rising federal funds rate tends to draw money away from Treasuries and into higher-yielding investments. Since the T-bill rate is fixed, investors tend to sell T-bills when the Fed is hiking rates because the T-bill rates are less attractive. Conversely, if the Fed is cutting interest rates, money flows into existing T-bills driving up prices as investors buy up the higher-yielding T-bills

- **Inflation:**

Treasuries also have to compete with inflation, which measures the pace of rising prices in the economy. Even if T-Bills are the most liquid and safest debt security in the market, fewer investors tend to buy them in times when the inflation rate is higher than the T-bill return. For example, if an investor bought a T-Bill with a 2% yield while inflation was at 3%, the investor would have a net loss on the investment when measured in real terms. As a result, T-bill prices tend to fall during inflationary periods as investors sell them and opt for higher-yielding investments.

➢ Who should invest in treasury bills?

The government of India issues Treasury bills which are ideal for investors who are looking for secure investment and reasonable returns. RBI facilitates the non-competitive bids to be placed by the investors. The bidding process of T-bills allows investors to take part in the same by placing their bid. The details regarding the discount value and par value are published beforehand. Investors can get full transparency of the investment process. Also, it helps for wealth creation for individuals.

It is suitable for any investors irrespective of their knowledge and risk tolerance levels. Over and above, it can also add as a secure investment for investors looking for portfolio diversification. This can dilute the risk of overall portfolio allocation.

Even companies, firms, banks, trust, insurance companies, provident fund, state government and financial institutions are eligible to invest in treasury bills.

Treasury bills are the safest fixed income investment instrument in its category as the risk of default is negligible. The yield is also predetermined as the date of issue, the maturity dates and the amount are also fixed. They play a crucial role in regulating the total money supply in the economy.

C. Government securities

➢ What is government securities?

A government security (G-Sec) is a tradeable instrument issued by the central government or state governments. It acknowledges the government's debt obligations. Such securities are short term called treasury bills with original maturities of less than one year, or long term — called government bonds or dated securities with original maturity of one year or more. In India, the central government issues both: treasury bills and bonds or dated securities, while state governments issue only bonds or dated securities, which are called the state development loans. Since they are issued by the government, they carry no risk of default, and hence, are called risk-free gilt-edged instruments.

In the investing world, government security applies to a range of investment products offered by a governmental body. For most readers, the most common type of government security are those items issued by the U.S. Treasury in the form of Treasury bond, bills, and notes. However, the governments of many nations will issue these debt instruments to fund ongoing, necessary, operations.

Government securities come with a promise of the full repayment of invested principal at maturity of the security. Some government securities may also pay periodic coupon or interest payments. These securities are considered conservative investments with a low-risk since they have the backing of the government that issued them.

➢ What are different types of government securities?

- **Cash Management Bills:**

These are short-term securities that are highly flexible since they can be issued when needed. Their tenure and date of issue are based on the temporary cash needs of the government; however, the chosen tenure must still be less than 91 days. Like Treasury Bills, they are given at discounts on the face value via RBI auctions.

- **Dated Government Securities:**

These are long-term securities that have either a fixed or floating rate of interest. The investor benefits from the interest paid (coupon) on each bond. These securities are termed “dated” because of the explicitly stated date of maturity; for instance, a January 1st, 2019 security will mature on January 1st of 2019. The RBI sells these securities via auctions. The main investors in dated securities are primary dealers such as commercial banks and insurance companies. Examples of dated securities are fixed and floating rate bonds, zero coupon bonds, capital indexed bonds, and bonds with call or put options.

- **State Development Loans:**

These are dated securities that are issued by state governments for purposes of meeting their budgetary requirements. The RBI facilitates the issuance of these security types via auctions through the Negotiated Dealing System. These auctions are usually done once every two weeks. The rates of interest for these securities are determined at the time of auction, though their rates are often slightly higher than for the Dated Government Securities.

➢ Risks attached to government securities, and how one can mitigate those risks

➢ Interest rate risk:

The first thing a bond buyer should understand is the inverse relationship between interest rates and bond prices. As interest rates fall, bond prices rise. Conversely, when interest rates rise, bond prices tend to fall.

This happens because when interest rates are on the decline, investors try to capture or lock in the highest rates they can for as long as they can. To do this, they will scoop up existing bonds that pay a higher interest rate than the prevailing market rate. This increase in demand translates into an increase in bond prices.

On the flip side, if the prevailing interest rate is on the rise, investors would naturally jettison bonds that pay lower interest rates. This would force bond prices down.

Let's look at an example. An investor owns a bond that trades at par value and carries a 4% yield. Suppose the prevailing market interest rate rises to 5%. What will happen? Investors will want to sell the 4% bonds in favors of bonds that return 5%, which will in turn send the price of the 4% bonds below par

➢ Reinvestment risk:

Another danger bond investors face is reinvestment risk, which is the risk of having to reinvest proceeds at a lower rate than what the funds were previously earning. One of the main ways this risk presents itself is when interest rates fall over time and callable bonds are exercised by the issuers.

The callable feature allows the issuer to redeem the bond prior to maturity. As a result, the bondholder receives the principal payment, which is often at a slight premium to the par value.

However, the downside to a bond call is the investor is then left with a pile of cash they might not be able to reinvest at a comparable rate. This reinvestment risk can adversely impact investment returns over time.

To compensate for this risk, investors receive a higher yield on the bond than they would on a similar bond that isn't callable. Active bond investors can attempt to mitigate reinvestment risk in their portfolios by staggering the potential call dates of differing bonds. This limits the chance that many bonds will be called at once.

- **Inflation rate risk:**

When an investor buys a bond, they essentially commit to receiving a rate of return, either fixed or variable, for the duration of the bond or at least as long as it is held.

But what happens if the cost of living and inflation increase dramatically, and at a faster rate than income investment? When this happens, investors will see their purchasing power erode, and they may actually achieve a negative rate of return when factoring in inflation.

Put another way, suppose an investor earns a 3% rate of return on a bond. If inflation grows at 4% after the bond purchase, the investor's true rate of return is -1% because of the decrease in purchasing power.

- **Credit default risk:**

When an investor purchases a bond, they are actually purchasing a certificate of debt. Simply put, this is borrowed money the company must repay over time with interest. Many investors don't realize that corporate bonds aren't guaranteed by the full faith and credit of the U.S. government, but instead depend on the issuer's ability to repay that debt.

Investors must consider the possibility of default and factor this risk into their investment decision. As one means of analysing the possibility of default, some analysts and investors will determine a company's coverage ratio before initiating an investment. They will analyse the company's income and cash flow statements, determine its operating income and cash flow, and then weigh that against its debt service expense. The theory

is the greater the coverage (or operating income and cash flow) in proportion to the debt service expenses, the safer the investment.

- **Rating downgrades risk:**

A company's ability to operate and repay its debt issues is frequently evaluated by major ratings institutions such as Standard & Poor's Ratings Services or Moody's Investors Service. Ratings range from AAA for high credit quality investments to D for bonds in default. The decisions made and judgments passed by these agencies carry a lot of weight with investors.

If an issuer's corporate credit rating is low or its ability to operate and repay is questioned, banks and lending institutions will take notice and may charge a higher interest rate for future loans. This can adversely impact the company's ability to satisfy its debts and hurt existing bondholders who might have been looking to unload their positions.

- **Liquidity risk:**

While there is almost always a ready market for government bonds, corporate bonds are sometimes entirely different animals. There is a risk an investor might not be able to sell their corporate bonds quickly due to a thin market with few buyers and sellers for the bond.

Low buying interest in a particular bond issue can lead to substantial price volatility and adversely impact a bondholder's total return upon sale. Much like stocks that trade in a thin market, you may be forced to take a far lower price than expected when selling your position in the bond.

➢ Features of government securities:

- **Issuing authority:**

Government securities can be issued only by the Central Government, State Governments, Semi-government Authorities. The Central Government securities prevailing in India are Gold Bonds, National Defence Bends and Rural Development Bonds.

The Central Government also issues Treasury Bills, Special Rupee Securities, Payment of India’s Subscriptions to International Monetary Fund, I.B.R.D. and International Development Agency. Government securities are also categorized by issues made by local Government Authorities, City Corporations, Municipalities, Port Trusts, Improvement Trusts, State Electricity Boards, Public Sector Undertaking and Metropolitan Authorities. These authorities usually issue bonds. The third form of government securities are

issued by the financial institute I.F.C.I., State Financial Corporations, Small Industries Development Corporation, Land Development Banks and Housing Boards. These authorities issue bonds and debentures.

- **Government securities and stock market:**

The stock market is to a large extent influenced by the government securities in India. The Government securities are controlled by the Reserve Bank of India which maintains the statutory liquidity ratio and uses open market operations for control. In India, government securities do not affect the interest rates to any great extent in the private corporate sectors and industrial securities. Government securities operate basically for creating funds for development and priority program of the five-year plans as well as for meeting deficit budgets for Central and State plans.

- **Government securities and commercial bank:**

In India, all commercial banks have to maintain their secondary resources through government securities. The government securities also help them to get accommodation from the Reserve Bank of India whenever the need arises. Government securities are also excellent means to obtain loans. These securities are kept as collateral.

- **Issue price:**

Government securities are issued in denominations of Rs. 100. It has been noticed that these securities have usually been issued at a discount but not a premium.

- **Government securities and rate of interest:**

Rate of interest on government securities is low. In fact, it is lower than any other form of investment. This is so because government securities are considered to be the safest because at the time of maturity government always meets its commitments and is never at default.

- **Tax exemptions:**

Government securities offer certain tax exemptions.

- **Government securities and financial institutions:**

Financial Institutions have a legal constraint to invest certain proportion of their investible surplus every year in government securities. This amount is usually held by them till maturity because financial institutions find it difficult to switch from one security to another. Also, they are not in any particular need or requirements of funds. Due to these reasons, they usually take their funds only after the maturity of the security.

- **Government securities and underwriting:**

Government securities are not underwritten. In fact, brokers also do not like to deal with these securities. Government securities are issued by the Debt Office of the Reserve Bank of India. This office notifies all issues and subscriptions which can be open for two to three.

➢ Advantages and disadvantages of government securities

The following are the advantages of investing in government bonds:

- **Risk-Free:**

Government bonds promise assured returns and stability of funds to investors. They have always been an example of risk-free security. Thus, investors looking for a risk-free investment, government bonds are suitable for them.

- **Returns:**

The returns from government bonds are generally as good as bank deposits. Also, there is a guarantee of principal along with fixed interest.

Unlike bank deposits, these bonds are available for a longer duration. One can use Scrip box's returns calculator to estimate their returns.

- **Liquidity:**

One can buy and sell government bonds like equity instruments. The liquidity in these bonds is as adequate as banks and financial institutions.

- **Portfolio Diversification:**

Investment in government bonds makes a well-diversified portfolio for the investor. It mitigates the risk of the overall portfolio since government bonds are risk-free investments.

- **Regular Income:**

As per RBI guidelines, the interest accrued on government bonds shall be disbursed every six months to bondholders. Therefore, it provides an opportunity for the bondholders to earn regular income by investing their idle funds.

The following are the disadvantages of investing in government bonds.

- **Low Returns:**

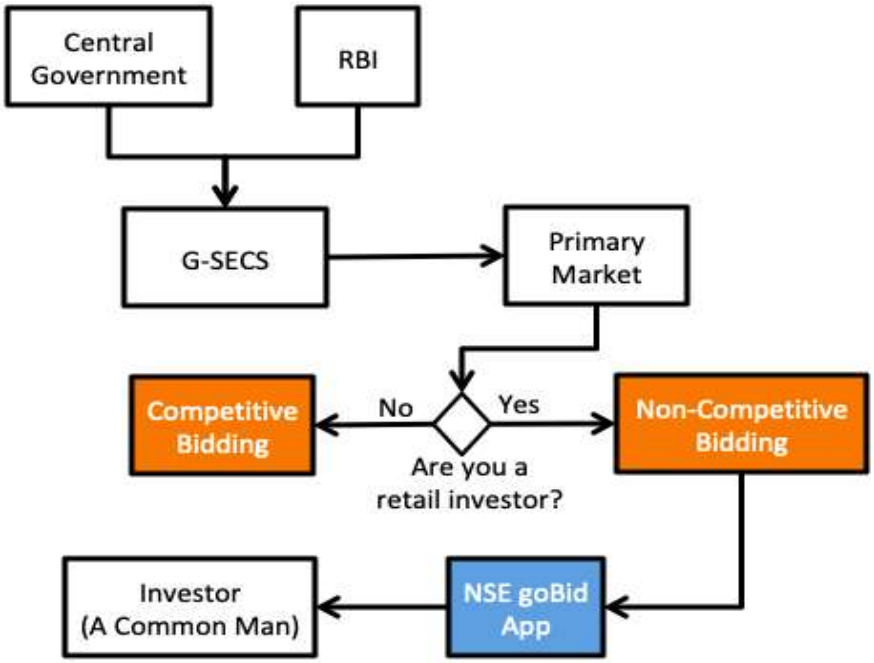
The yield or interest earned on government bonds is relatively lower in comparison to other investment options like equity, real estate, corporate bonds, etc.

- **Interest Rate Risk:**

Government bonds are long term investment bonds where the maturity is ranging from 5 years – 40 years. Hence, the bond might lose its value over this period.

If inflation rises, the interest rate is less attractive. Also, higher the bond period, the market risk also increases along with interest rate risk. Furthermore, the investor remains with an investment which is paying below the market value.

8. How to buy government securities in India?



Before Nov'2017, Government Securities (G-Secs) like bonds and T-bills were virtually non-accessible for common men (small investors). But then RBI started the "Non-competitive Bidding Facility ". This made G-secs more accessible for common men.

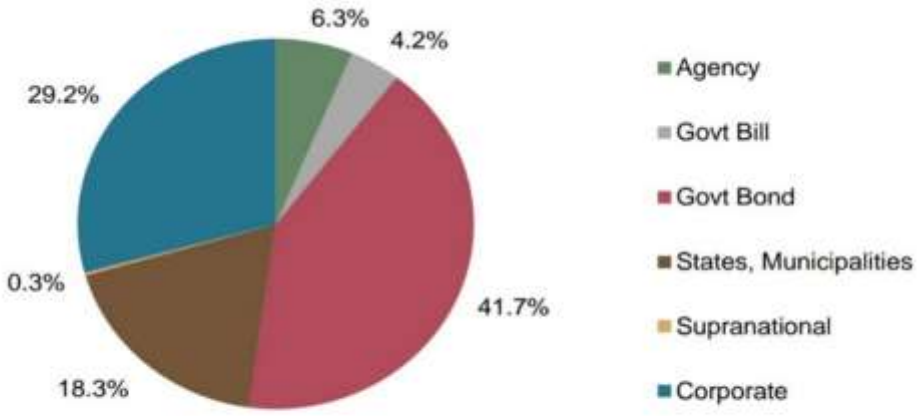
Let's understand more about competitive and non-competitive bidding process:

- Competitive bidding: Example: Government issues a bond of Face Value of Rs.1,000, offering an interest @8.0% p.a. In the competitive bidding process (auction), "investors" will quote a price higher than the face value (Rs.1,000). Suppose based on all bids, RBI accepts a cut-off price as Rs.1,060. In this case everyone who has quoted Rs.1,060 or more will get their quoted lot of the bond. [Note: In this case, their yield will be lower than 8.0%. How much lower? 7.54% (=8.0% / 1,060 * 1000)].
- Non-competitive bidding: RBI's "non-competitive bidding facility" for retail investors like me and you. Small investors just need to access the mobile and web app of NSE.
- Small investors like me and you can buy government bonds in India using a mobile app or a web-based app of National Stock Exchange (NSE). This app is called "NSE go BID ". Either of these two apps can be used to buy the following:
  - Long-dated government bonds: holding time: 5 to 40 year.
  - Treasury bills (T-bills): holding time less than 1 year.

Before one can go ahead and buy the government bonds using NSE go BID, the "process of registration" must be completed. But do not worry, everything is online.

9. Structure size and reach of fixed income securities.

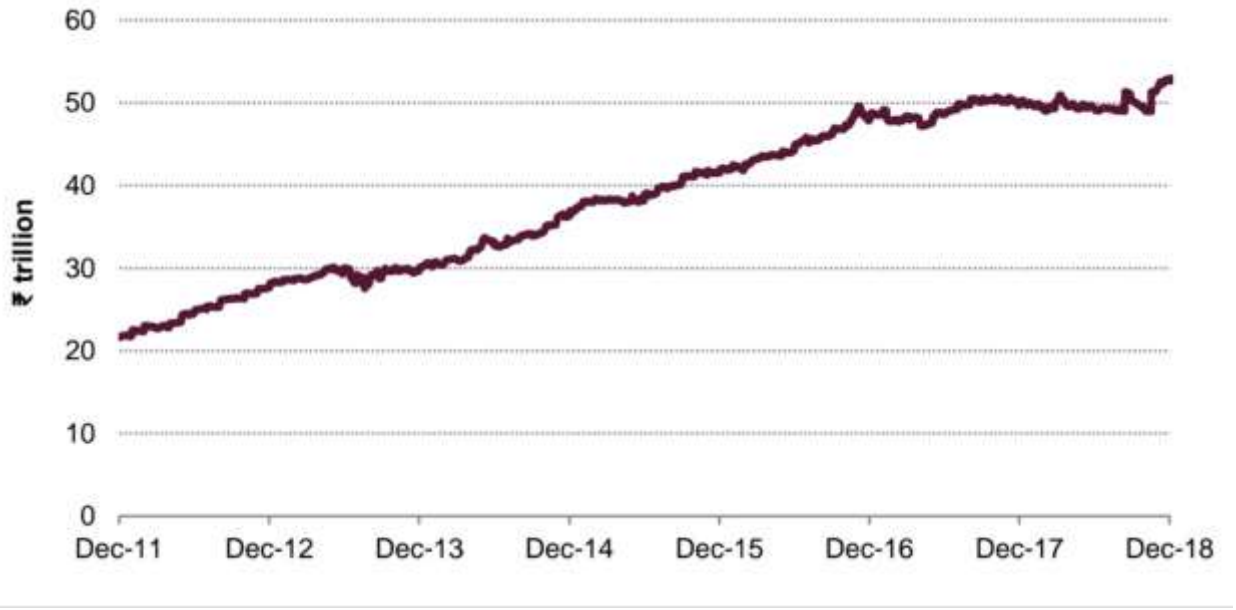
Indian rupee fixed income market breakdown by issuance



Total Market Value = ₹ 135.6 tn, ~ US$1.9 tn

The government securities market India's central bank, the Reserve Bank of India (RBI), is responsible for issuing almost half of the outstanding INR-denominated debt. Short-term discount bills account for INR 5.7 trillion (c. USD 80 billion) of this, while longer-term, fixed-rate government bonds, at INR 56.6 trillion (c. USD 804 billion), constitute by far the largest market sector.8 This part of the market is tracked by the FTSE SBI Bond Index, which was launched in 2017 as a product of a partnership formed by FTSE Russell and the State Bank of India. The 60% government-owned SBI is India's largest bank with over 18,000 branches throughout the country. 9 Restricted to issues with a minimum outstanding face value of INR 50 billion (USD 711 million), the index comprises 70 bonds maturities between one year and a current high of 27 years, and a total value of INR 52.8 trillion (USD 750 billion) as of January 2019. However, 41 smaller fixed-rate bonds with a combined value of INR 6 trillion (USD 8 billion) and a single inflation-linked bond are not included in the index.

Growth in market value of the FTSE SBI government bond index

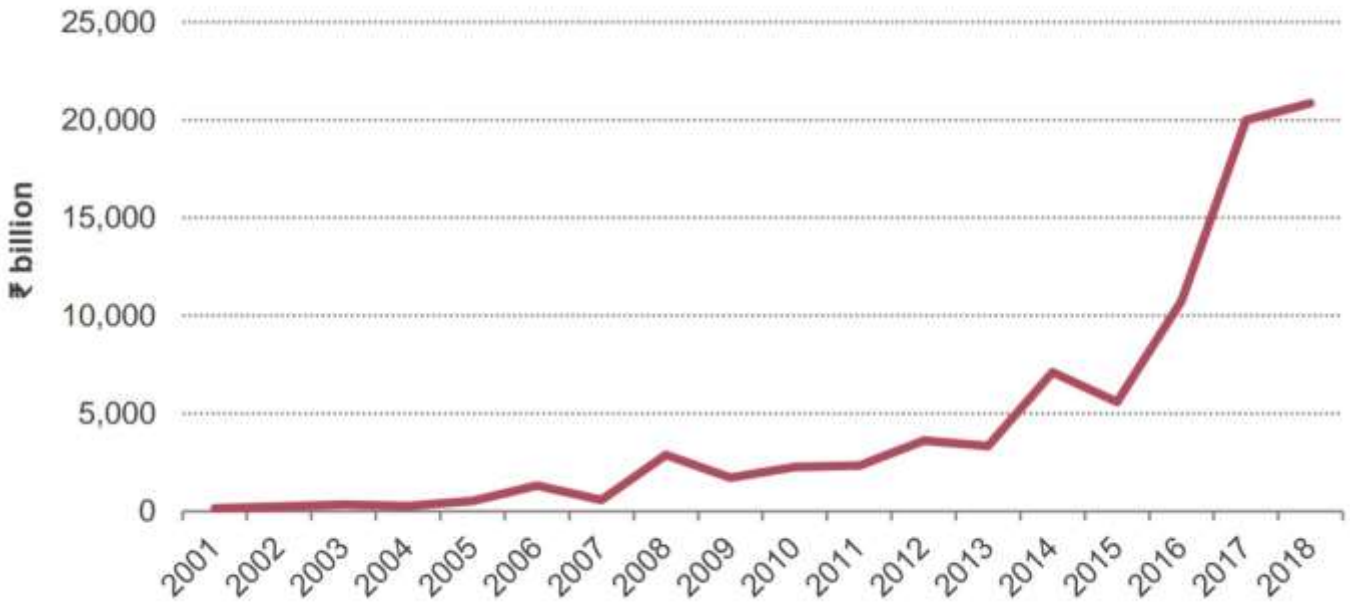


Index market value, at end of:			
	INR bn	Annual Change	As %
Dec-18	52,642	2,419	4.8%
Dec-17	50,223	1,736	3.6%
Dec-16	48,487	6,928	16.7%
Dec-15	41,558	5,210	14.3%
Dec-14	36,348	6,588	22.1%
Dec-13	29,760	2,062	7.4%
Dec-12	27,698	6,061	28.0%
Dec-11	21,637		

Since its inception at the end of December 2011, the size of the FTSE SBI Government Bond Index has more than doubled, before levelling off through much of 2017 and 2018. Aggregate limits on foreign ownership of Indian government bonds have been stringent with foreign investors being allowed to own a maximum of 6% of outstanding government debt. However, the Reserve Bank of India has been progressively relaxing restrictions.10 Prior to May 1, 2018, it was forbidden for foreign investors to purchase government securities with a remaining maturity of less than three years. 11 That restriction has now been lifted and the entire government bill market (previously off-limits) is now accessible. The new rules stipulate that: • at most, 20% of a portfolio can be invested in government securities with a maturity of less than one year; • no single security can account for more than 30% of a portfolio's value; • the 5% withholding tax on coupon payments from government securities has been reduced to zero until at least March 2019. In addition, since 2014 overseas investors have been allowed to hedge out the currency risk of INR on domestic exchanges. Alternatively, there are offshore exchanges which trade liquid non-deliverable forwards (NDFs) in INR.13 The cost is roughly the difference in short-term interest rates: for example, hedging the currency risk for one year would subtract about 4.2% in yield for a US dollar-based investor. The Indian and US government yield curves are similarly flat, so opportunities for increasing the yield differential, at least in government bond space, are currently limited.

- **The corporate bond market-**

The next largest section of the rupee-denominated debt market is the corporate bond market, which has grown substantially in recent years.



Government backing for the use of corporate bonds as a means of Indian companies raising capital is expected to see the market expand further in the next few years.

This market is very different from that of government-issued debt. The corporate bond market consists of over 12,000 bonds, of which some 9,300 have a maturity above one year and an average amount outstanding of INR 3.7 billion (USD 53million). In comparison, the FTSE SBI Government Bond Index contains 70 bonds, with an average amount outstanding of just over INR 720 billion (USD 10.3 billion) per bond. The median issue amount of the corporate bond market is about INR 500 million (USD 7.1 million). It is dominated by issuers from the financial services industry, which accounts for close to 75% of the market by value. Moreover, the majority – all but around 400 of the 9,300 – are privately placed.14 Consequently, the prospect of a broad foray into the Indian corporate bond market has been somewhat unappealing for a foreign investor given the current make-up and concentration of the corporate bond market. In addition, the RBI has placed restrictions on foreign holdings of corporate bonds, although as with the government market, these have relaxed over time. Regulations enacted at the beginning of May 2018 stated that:

- bonds must have a minimum maturity of one year at purchase;
- bonds held below one-year maturity must make up less than 20% of the corporate bond portfolio;
- no single security should make up more than 20% of the portfolio;
- investors are not allowed to hold more than 50% of any issue.15 However, these lower barriers were removed completely by the RBI in September 2018 in a bid to counteract the effects of several negative factors impacting the Indian economy

10.Top 6 fixed income investments in India.

- **Public Provident Fund (PPF)-**

PPF is one of the safest fixed income investments as it does not bear any market risk. It is is fully secured with government guarantee. PPF has a maturity of 15 years which can be further extended by five more years. It allows premature withdrawals after five years of opening the account under certain circumstances. Only one account can be opened by a citizen. The contribution to PPF is eligible for deduction under Section 80C of the Income Tax Act. Currently, PPF offers an interest rate of 7.1% p.a. The interest rate does not remain fixed and the Government revises it every quarter.

- **Bank Fixed Deposit (Bank FDs)-**

Bank FDs are most popular investment option for risk averse investors in our country. In case of a bank failure, the bank deposits up to ₹5 lakh are insured by the Government. This scheme ensures all types of bank deposits including savings, fixed and recurring with an insured bank. The deposit insurance scheme covers all banks operating in India including private sector, co-operative and even branches of foreign banks in India.

- **7.15% RBI Floating Rate Savings Bonds-**

RBI Savings Bond have a maturity of seven years.; The Government of India allowed to issue Floating Rate Savings Bond from July 1. The interest rate for the period July 1 to December 31, is 7.15% which will be payable on January 1 next year. The interest rate on RBI Floating Rate Savings Bond will be reset every six months. RBI Savings Bonds are not tradable in the secondary market. Interest on the RBI Floating Rate Savings Bond are fully taxable and tax will be deducted while making payment of interest on bonds from time to time. An investor can invest in bonds for a minimum sum of Rs1,000. There is no maximum limit. These bonds offer special premature withdrawal facility to senior citizens.

- **Senior citizen Savings Scheme (SCSS)-**

As the name suggests, an individual of age 60 years or more can invest in SCSS. At present, SCSS pays an interest at the rate 7.4 % per annum. SCSS allows only one deposit not exceeding Rs15 lakh. The depositors may operate more than one account in individual capacity or jointly with spouse. Maturity period is 5 years. After maturity, the account can be extended for further three years. In case of SCSS accounts, quarterly interest shall be payable on 1st working day of April, July, October and January

- **Post Office National Savings Monthly Income Account (POMIS)-**

POMIS is a five-year investment with a maximum cap of ₹4.5 lakh under single ownership and ₹9 lakh under joint ownership. POMIS offers an interest rate of 6.6% payable monthly. POMIS has a maturity tenure of five years.

- **Sukanya Samriddhi Accounts-**

This is a government scheme to save girl child where the account can open up to age of 10 years only from the birth of the child. At present Sukanya Samriddhi Account offers an interest rate of 7.6 % p.a, calculated on yearly basis, yearly compounded. It allows to make deposits for up to 15 years from the date of opening the account. Partial withdrawal is allowed once the girl child attains 18 years of age. Account can be closed after completion of 21 years. Investments towards Sukanya Samriddhi qualify for tax deduction up to ₹1.50 lakh under Sec 80C of IT Act. The interest earned and maturity are tax free.

- **5-year National Savings Certificates (NSC)-**

Another post office savings scheme, NSCs are quite popular among the HNIs to diversify their fixed income portfolio. These certificates are secure and useful for those who seek safety of capital. NSCs at present offer interest rate of 6.8 % compounded annually but payable at maturity. Deposits qualify for tax rebate under Sec 80C of IT Act. Certificates can also be purchased on behalf of a minor above 10 years of age. The interest for first four years is reinvested however, the interest earned in the fifth year is taxable as per the applicable tax slab rate.

Fixed income investors can also look at debt mutual funds. Do not chase returns while investing in debt funds. Mutual fund investors who burnt their fingers in Franklin Templeton's debt schemes would know the risks better. Pankaj Pathak, Fund Manager- Fixed Income, Quantum Mutual Fund advises retail investors to not follow ratings blindly. He says ratings are based on returns mostly. "Retail investors should choose funds which invest into good credit quality debt like government securities or highly rated PSUs."

CHAPTER 2- RESEARCH METHODOLOGY

- **What is Research Methodology?**

Research Methodology is a way to systematically solve the research problem. The Research Methodology includes the various methods and techniques for conducting a research. Research is an art of scientific investigation. In other words, research is scientific and systematic search for pertinent information on a specific topic. The logic behind taking research methodology into consideration is that one can have knowledge about the method and procedure adopted for achievement of objective of the project.

- **Objective of the project-**

  - To study and understand fixed income securities and learn about various types of fixed income securities.
  - To study and understand terminologies related to fixed income securities.
  - To study risk and return associated with fixed income securities.
  - To study various
  - factors, affect the investment in fixed income securities.
  - To study the awareness level of Indian investors in fixed income securities.

- **Significance of the study-**

While investing in stocks and equity-oriented saving instruments might come with promising returns, there is risk associated with it. On the other hand, fixed-income instruments come with guaranteed returns, attracting risk-averse investors. So, it is very important to study on how different securities yield are playing out in market, turnover and other related data, calculations of yields impact of the securities rate on the stock market etc. this study is analyzing all these facts.

- **Collection of data-**

  - **Primary data-**

Primary data is information that you collect specifically for the purpose of your research project. An advantage of primary data is that it is specifically tailored to your research need. A disadvantage is that it is expensive to obtain.

  - **Method use for collecting primary data:**

Survey (Questionnaire).

These are basically questionnaire with a set of carefully designed questions posed to your target population. A questionnaire is research instrument consisting of a series of question (or other type of prompts) for the purpose of gathering information from respondent.

- **SAMPLING SIZE:**

To get a rough overview I will need minimum of 50 responses on my source of primary data i.e., Questionnaire. Therefore, my sample size to conduct the study will be of minimum 50 people. Basically, population having knowledge of debt market.

- **SAMPLE DESIGN:**

Although technically, everyone in the universe should be considered in the study for the perfect response however that is highly wayward and hence I have decided a target population of 0.1 percentages.

- **SAMPLING FRAME:**

Now the size is bought to 50, it will be classified on the basis of age, occupation, education background etc. the reason behind it is to get the accuracy of the data and also it is easy for interpretation of the responses.

➢ **Limitations of the study-**

The findings of this study have to be seen in light of some limitations.

1. Lack of previous research studies on the topic.
2. Methods/instruments/techniques used to collect the data.
3. Lack of available and/or reliable data.
4. Measure used to collect the data.
5. Fluency in a language.

CHAPTER 3- LITERATURE REVIEW

- **Bodart et al. (1999)**

Found many answers such as what and how does the potential effects of the exchange rate on the bond and stock national equity index return series due to cause of conditional market volatilities and international correlations of the countries and here, they also tell that if we find any little evidence find in bond index return or wholesale debt market while strong asymmetries in conditional volatility. Though, both bonds and equities reveal asymmetry in conditional correlation.

- **Rajeshwari Jain (2014)**

Investment is the consumption and saving opportunity in future expressed in monetary terms. Two classes of investments like Fixed income statements i.e., Preference shares, Bonds, fixed deposits and Variable income investment i.e., equality capital, proprietary ownership. Data shows that respondents between the age group of 26 years to 35years are involve in investment activities.

- **Chen et al (2009)**

Analyses in situation of high volatility state of the bond market and low volatility state of the stock market, the assessment or estimates of bond-stock correlation in both or in cooperation of high and low connection or correlations states are nonnegative. But when both bond and stock markets are in high volatility state, the bond-stock correlation has the maximum correlation predicted and estimate at its high correlation-state and almost lowermost correlation estimate at its low correlation-state.

- **Priyanka Jain (2012)**

The study analyses the various investment avenues available for the investors. It states Equity shares has low return but high capital appreciation, risk liquidity, Marketability, tax benefit, Debentures has high return but low risk liquidity and marketability. Bank deposits have moderate returns but low capital appreciation and risk liquidity.

- **N. Geetha, M. Ramesh (2011)**

This study Examines the factors responsible for investment behavior of people and different investment options available. Equity are high risk and high return investment with liquidity, debts are low risk and fixed return instruments, Mutual funds and bonds are low risk with normal returns instruments, Company deposits

and bank deposits has low risk and low returns, post office savings, PPF and insurance policies are no risk investment with low returns, Real estate and Gold has no returns on investment but has capital appreciate.

- **Elmendorf and Mankiw (1999)**

The impacts of government debt and its effects on interest rates can be explained in a number of different ways, and with differing underlying assumptions. For a closed economy, and assuming that Ricardian equivalence1 does not hold, a budget deficit reduces national saving, which implies a shortage of funds to finance investment. This would place upward pressure on interest rates as firms compete to finance their investments from the existing pool of domestic saving

- **Houweling and Zundert, (2014)**

Extensively studied the size, low-volatility, value, and momentum factors in the U.S. corporate bond market, and they noted that the factors delivered statistically significant premiums over the market. The authors noted investing in multi-factor portfolios appeared to be advantageous over single-factor portfolios. Similar to factor investing in equities, multi-factor portfolios tend to be better diversified and able to withstand prolonged underperformance that may be experienced by one or more factors in the corporate bond market.

- **Carvalho, Dugnolle, Lu, and Moulin, (2015)**

Studied sovereign, quasi sovereign, securitized, collateralized, investment-grade, high-yield corporate, and emerging market bonds in four major currencies. The authors noted the presence of the low-volatility factor across major developed fixed income markets, with lower-volatility bonds generating higher risk-adjusted return.

- **N. Srividhya, S. Visalakshi (2013)**

The study analyses various avenues of investment such as Government deposits, bonds, real estates, post office saving certificates life insurance policies, mutual funds etc. study covers Government colleges, Private colleges and aided colleges which states that maximum teachers save below one lakh. Maximum respondents invest in fixed deposits.

- **Flannery, (2003)**

If a firm is raising money by the way of debt, it is a very crucial decision, as it affects the entire firm and not just the debt of the firm. All the stakeholders are affected, and this decision is followed by a series of other

decisions as well. ‘‘It is therefore puzzling that firms do not make advance arrangements to re-capitalize themselves if large losses occur.’’

- **Yatin Bhagwat, (2001)**

In some cases, the companies might choose to issue redeemable debentures to their shareholders, instead of declaring dividend or issuing bonus shares. This can be done the company for two major reasons- in order to raise debt capital, or when the company is unable to pay dividends or cannot accommodate a reduced share price. “This innovative technique has important implications for the capital structure of the company, the dividend policy and the agency relationship between managers and shareholders.”

- **Premchand, (1989)**

Usually, whenever a company issues debenture, the risk perception of the equity shareholders increases, as debenture holders have to be paid interest, before paying any amount to the other stakeholders of the company. As a result, the company has to increase the dividend pay-out ratio, in order to create a balance and retain its existing shareholders and keep them satisfied, even after the issue of debentures.

- **Majumdar (2012)**

While this temporal categorization of financing behaviour is important in analysing the determinants of debt-equity mix, another classification of borrowing based on whether borrowing is secured or unsecured has received scant attention.

- **Christopher J. Green, (2003)**

We use both approaches to characterize and to compare the financial structures of Indian companies over time; between quoted and unquoted companies; and between companies which belong to a business group and those that do not.

- **Campbell and Aminer (1991)**

Uses a log-linear asset pricing framework and a vector autoregressive model near to break down movements in stock and bond returns due to cause and changes in hopes of future stock dividends, short-term real interest rates, inflation, and excess returns on stocks and bonds. With the using of monthly post-war U.S. data, they found that excess stock yields are to be driven mostly by news almost about future excess stock yields, although excess of 10-year bond yields are driven mostly through news about future price rises or inflation. These results support to clarify why post-war excess stock and bond yields have been nearly uncorrelated.

- **Clifford S. Asness (2000)**

Suggested that long run difference in instability or volatility among stocks and bond are causal and driven of the difference between stocks yields and bond yields. He tries to explain the presently low stock market dividend and earnings yields. Stock and bond yield are strongly positive correlated and significant due to influence of altering or changing in volatility.

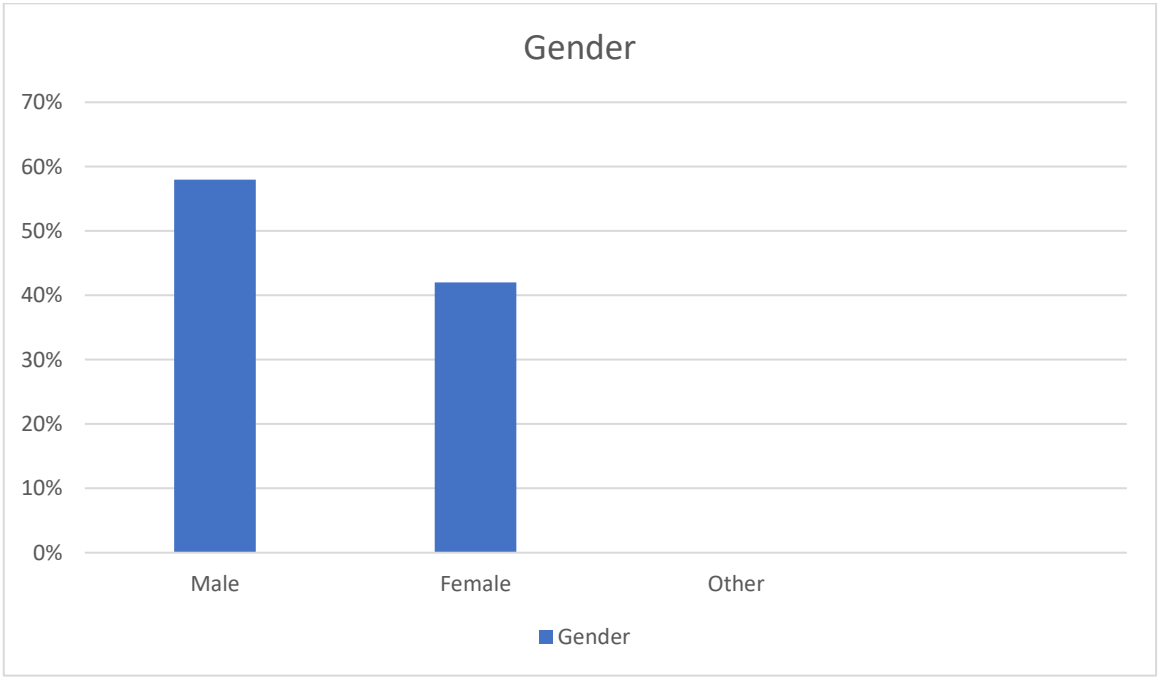
- **Kim and in (2007)**

Study the G7 countries using the wavelet analysis and they report that the relationship between changes in stock prices and bond yields depend on the time scale, with a negative relation in most economies both over the short and long horizons. On the contrary, Dajcman (2015) substantiates positive wavelet correlations between changes in sovereign bond yields and stock market returns, with the only exception of Portugal, for ten Eurozone countries between the years 2000 and 2011 and concludes that flight to-quality effect plays a greater role in explaining the correlation.

CHAPTER 4- DATA ANALYSIS

1. Gender:

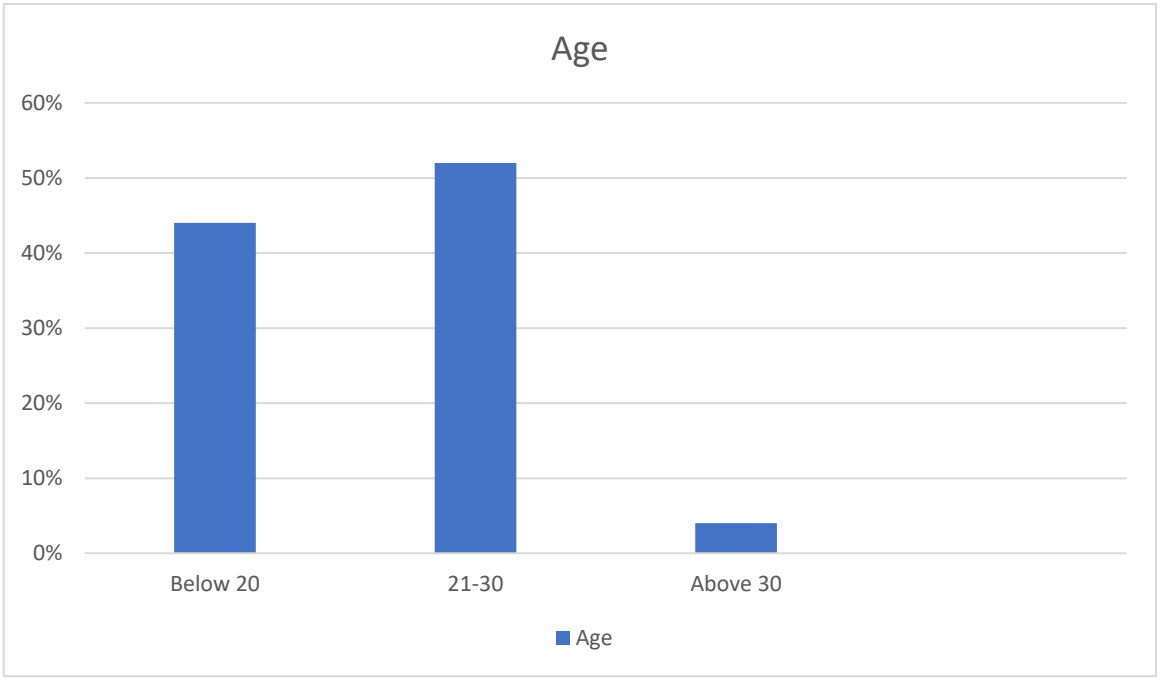
Gender	Percentage
Male	**58%**
Female	**42%**
Other	**–**



In this survey we found 58% responses are male and 42% responses are female. There is 0% response on other gender.

2. Age:

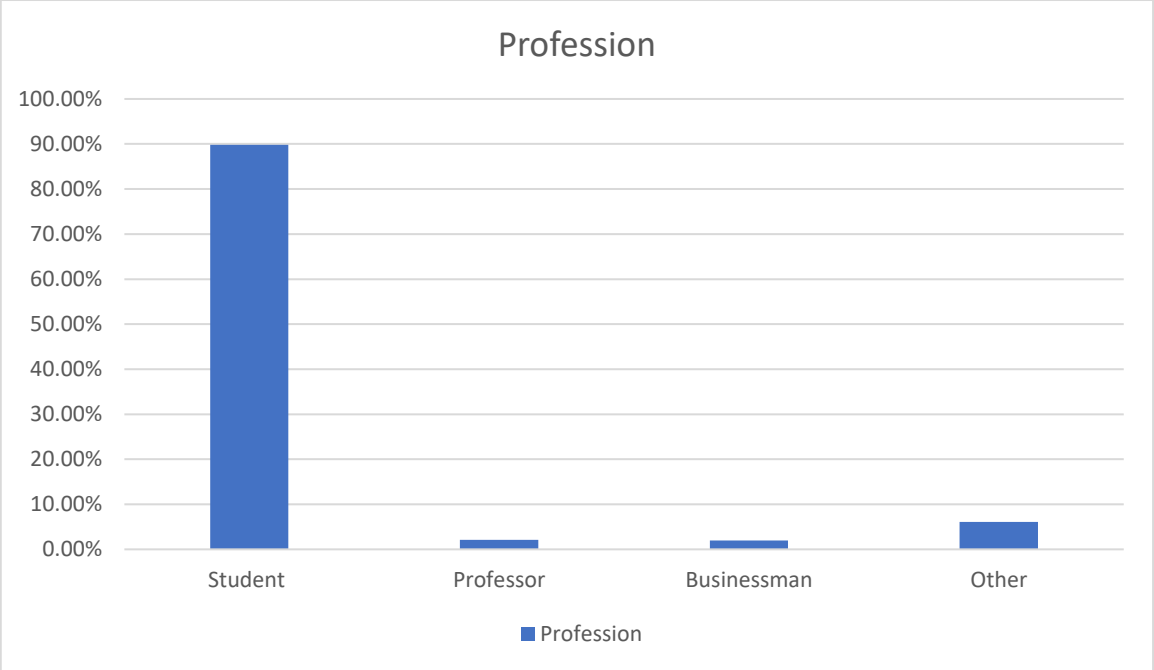
Age	Percentage
Below 20	**44%**
21-30	**52%**
Above 30	**4%**



In this survey of age there are 44% of population are below 20 and 52% of population are between 21-30 and 4% population are above 30.

3. Profession:

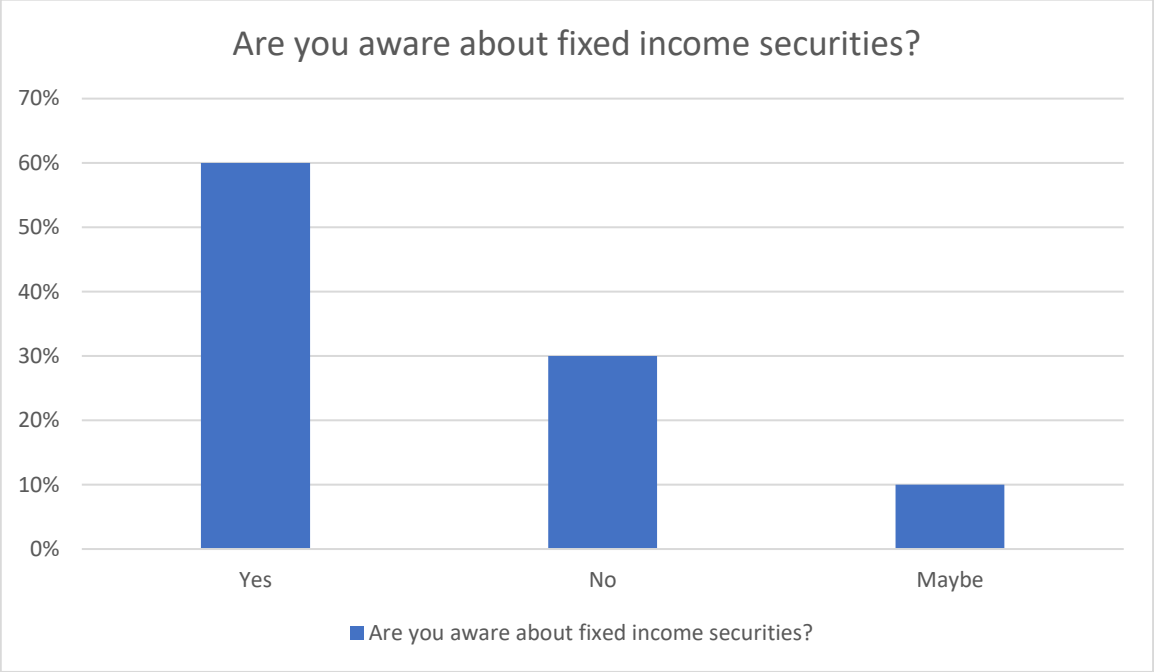
Profession	Percentage
Student	**89.8%**
Professor	**2.1%**
Businessman	**2%**
Other	**6.1%**



On the basis of profession, we survey that 89.9% are student, 2.1% are professor, 2% are businessman and 6.1% are in other profession.

4. Are you aware about fixed income securities?

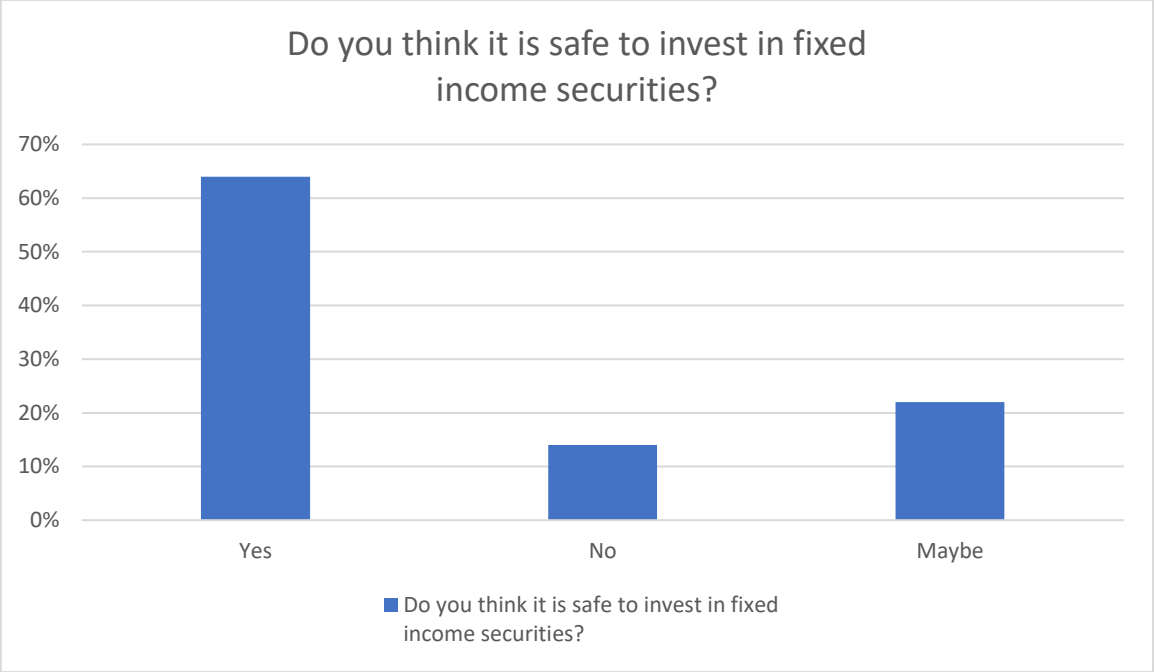
Percentage	
Yes	**60%**
No	**30%**
Maybe	**10%**



In this survey we found that 60% population are aware about fixed income securities, 30% doesn't known about fixed income securities and 10% population are barely known about fixed income securities.

5. Do you think it is safe to invest in fixed income securities?

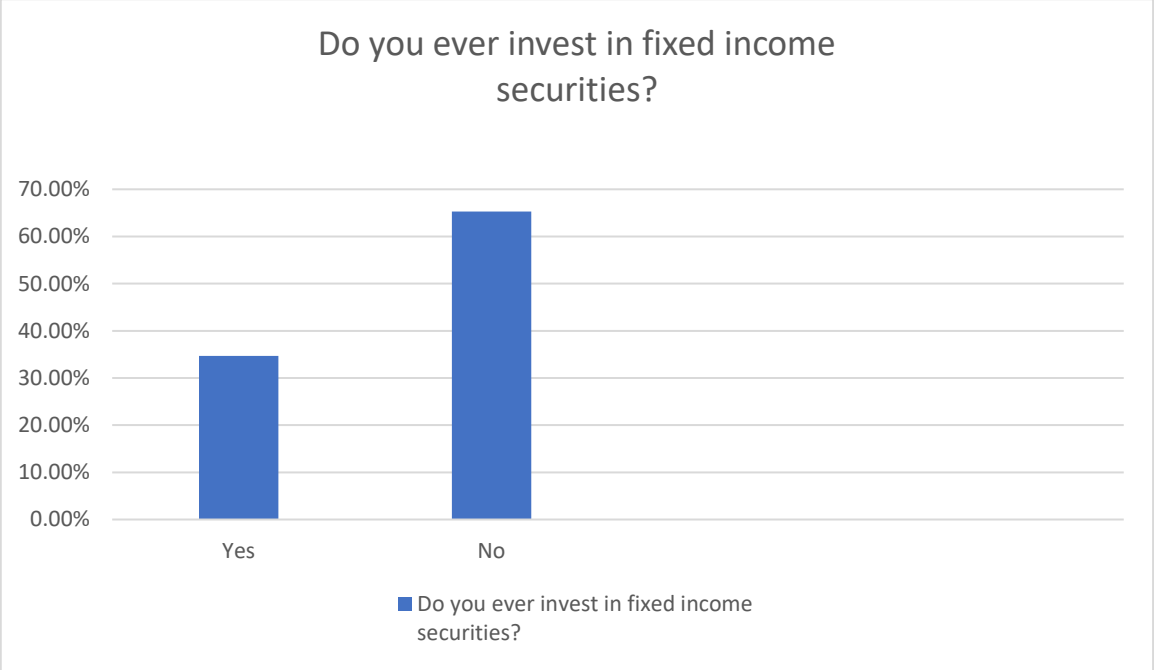
Percentage	
Yes	**64%**
No	**14%**
Maybe	**22%**



In this survey we found that 64% population thinks it is safe to invest in fixed income securities, 14% population thinks it is not safe to invest in fixed income securities and 22% population thinks maybe it is safe to invest in fixed income securities.

6. Do you ever invest in fixed income securities?

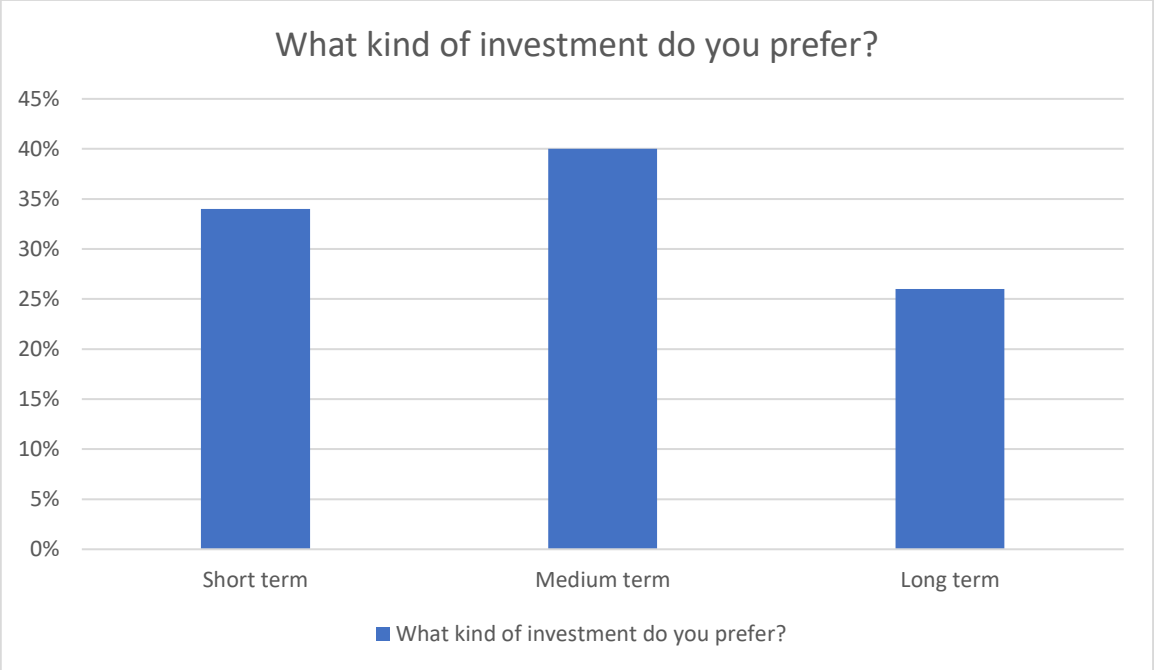
Percentage	
Yes	**34.7%**
No	**65.3%**



In this survey we found that 34.7% population are already invested in fixed income securities and 65.3% population are not invested in fixed income securities.

7. What kind of investment do you prefer?

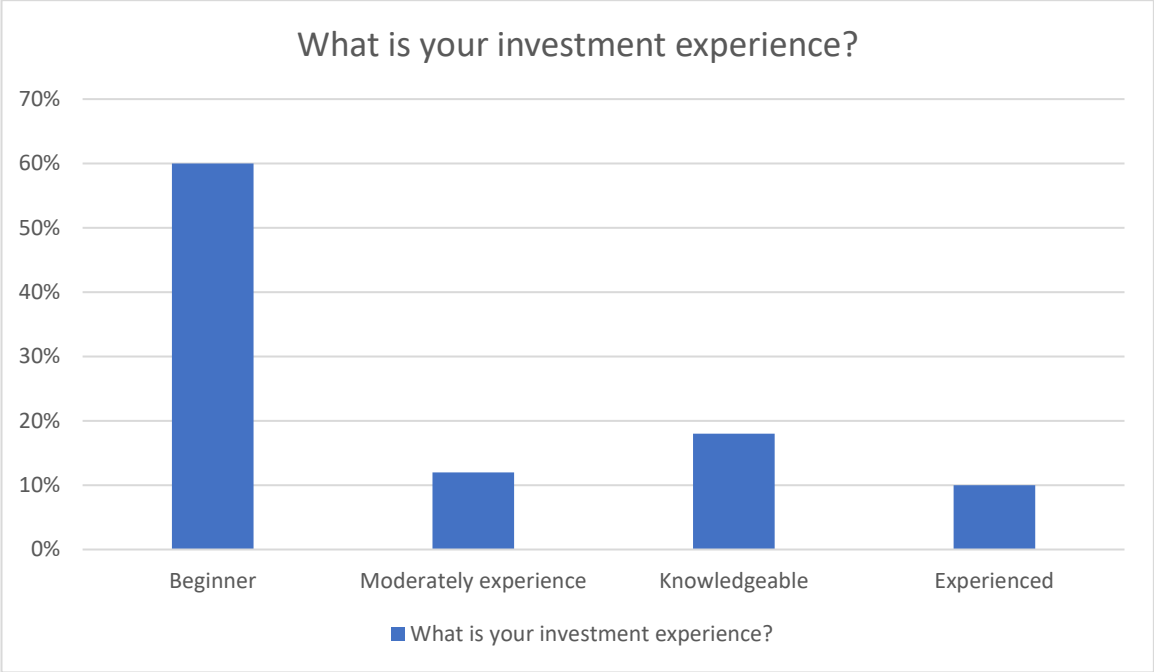
Percentage	
Short term	**34%**
Medium term	**40%**
Long term	**26%**



In this survey we found that 34% of population are prefer short term investment in fixed income securities,40% of population are prefer medium term investment in fixed income securities and 26% of population are prefer long term investment in fixed income securities.

8. What is your investment experience?

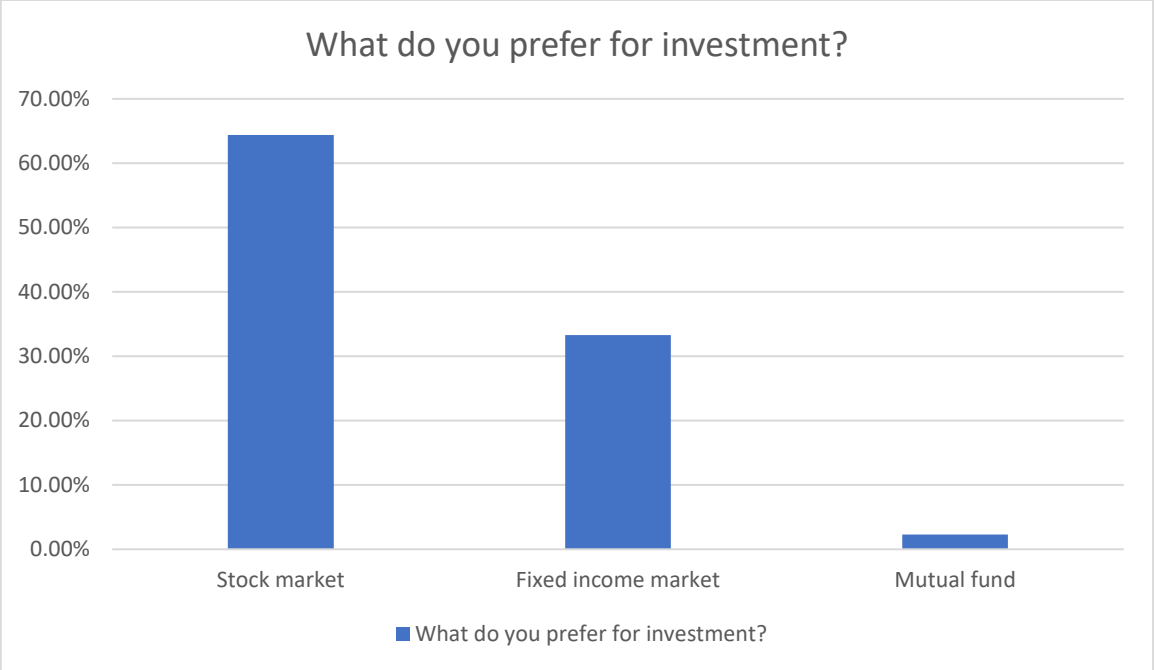
Percentage	
Beginner	**60%**
Moderately experience	**12%**
Knowledgeable	**18%**
Experienced	**10%**



In this survey we found that 60% population are beginner, 12% population are moderately experience, 18% population are knowledgeable and 10% population are experienced in fixed income securities.

9. What do you prefer for investment?

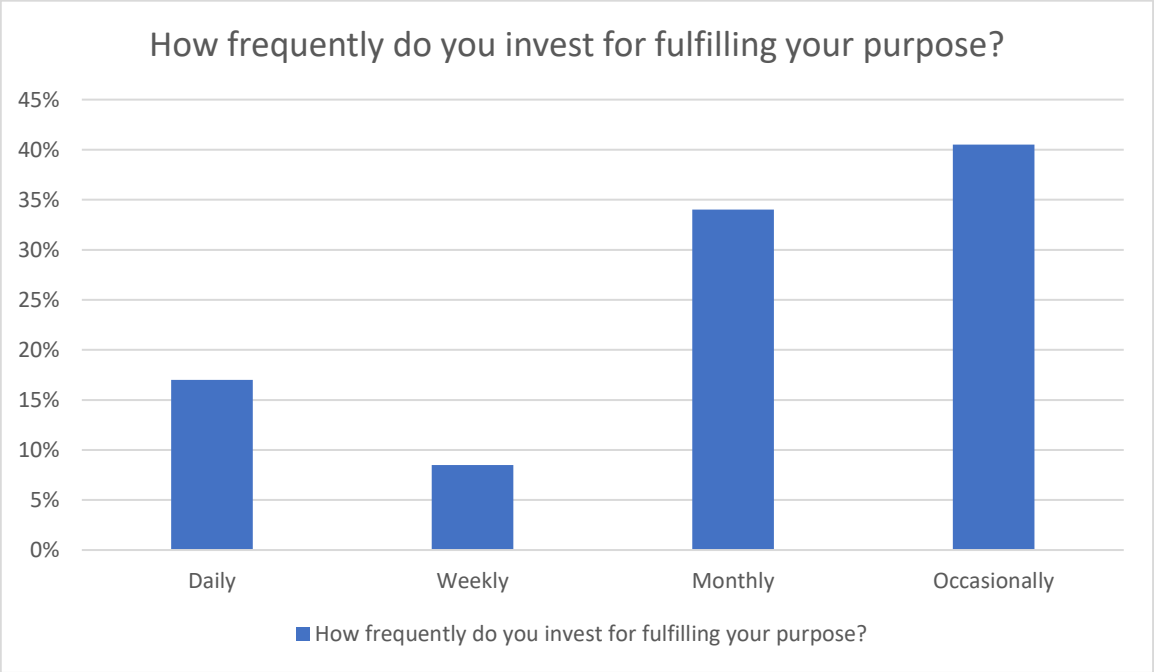
Percentage	
Stock market	**64.4%**
Fixed income market	**33.3%**
Mutual fund	**2.3%**



In this survey we found that 64.4% population prefer stock market investment, 33.3% population prefer fixed income market and 2.3% population prefer mutual fund investment.

10.How frequently do you invest for fulfilling your purpose?

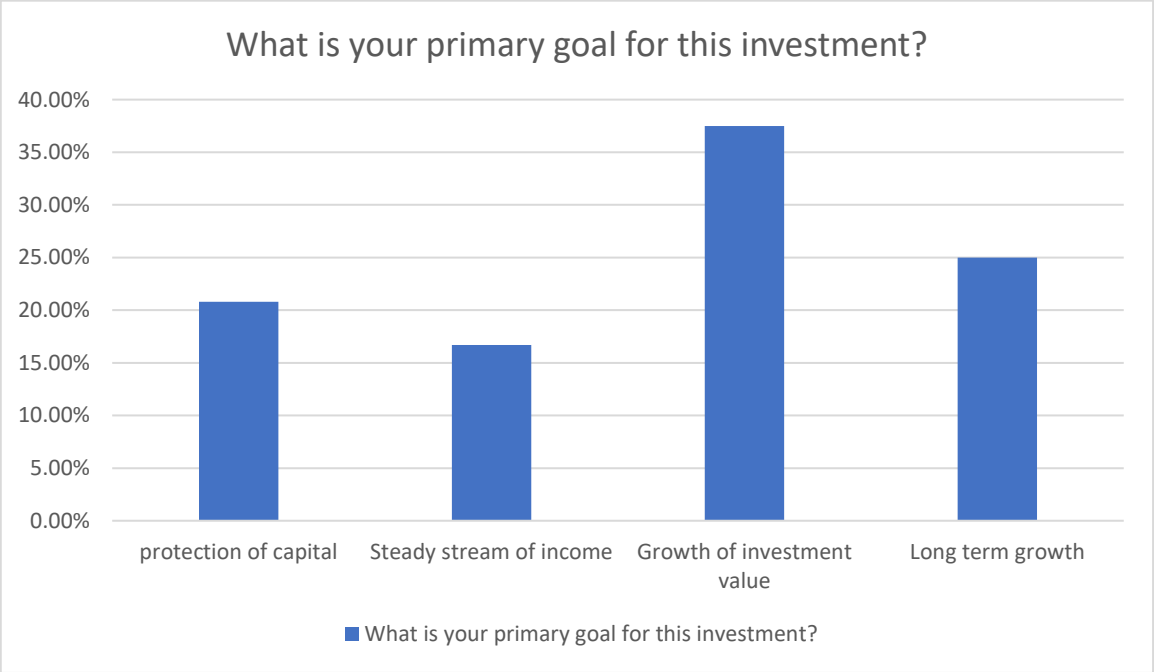
Percentage	
Daily	**17%**
Weekly	**8.5%**
Monthly	**34%**
Occasionally	**40.5%**



In this survey we found that 17% population invest on daily basis, 8.5% population invest on weekly basis, 34% population invest on monthly basis and 40.4% population invest on occasionally.

11.What is your primary goal for this investment?

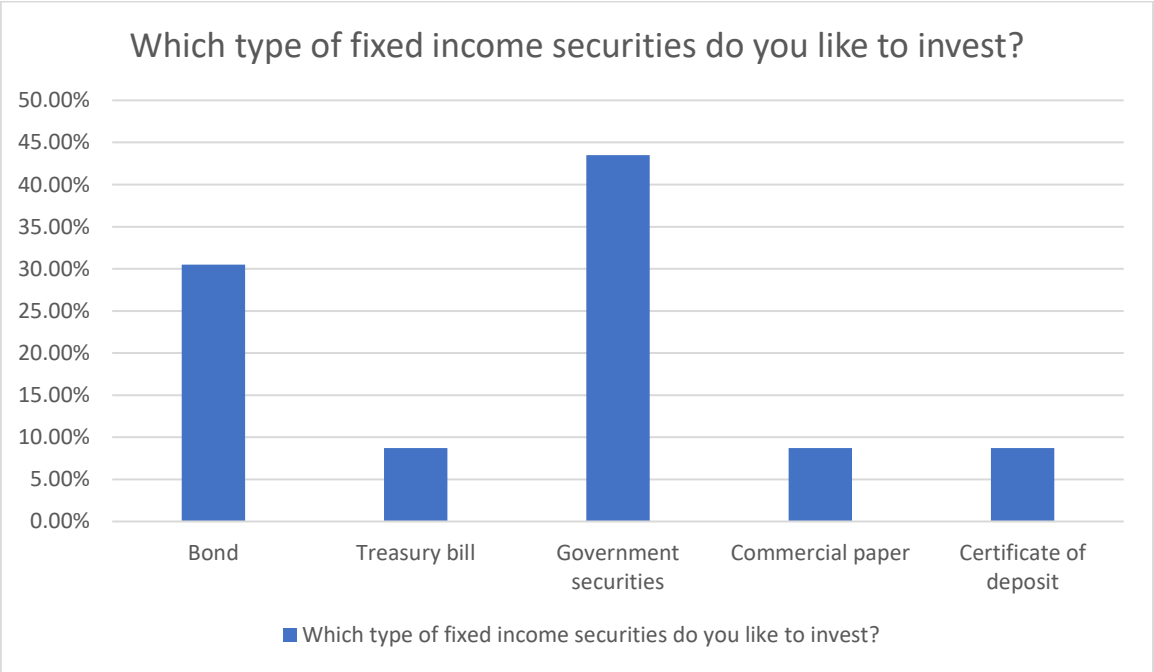
Percentage	
protection of capital	**20.8%**
Steady stream of income	**16.7%**
Growth of investment value	**37.5%**
Long term growth	**25%**



In this survey we found that primary goal from investment. 20.8% population invest for protection of capital, 16.7% population invest for steady stream of income, 37.5% population invest for the growth of investment value and 25% population invest for long term growth.

12.Which type of fixed income securities do you like to invest?

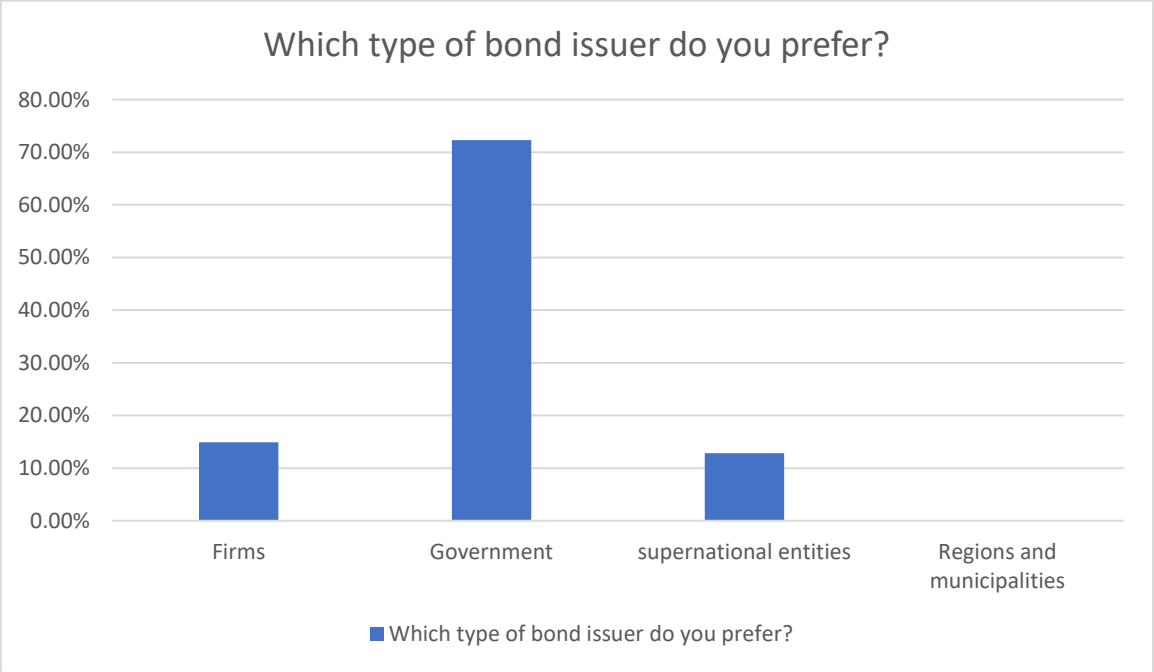
Percentage	
Bond	**30.5%**
Treasury bill	**8.7%**
Government securities	**43.5%**
Commercial paper	**8.7%**
Certificate of deposit	**8.7%**



In this survey we found that 30.4% population are like to invest in bond, 8.7% population are like to invest in treasury bill, 43.5% population are like to invest in government securities, 8.7% population are like to invest in commercial paper and 8.7% population are like to invest in certificate of deposit.

13.Which type of bond issuer do you prefer?

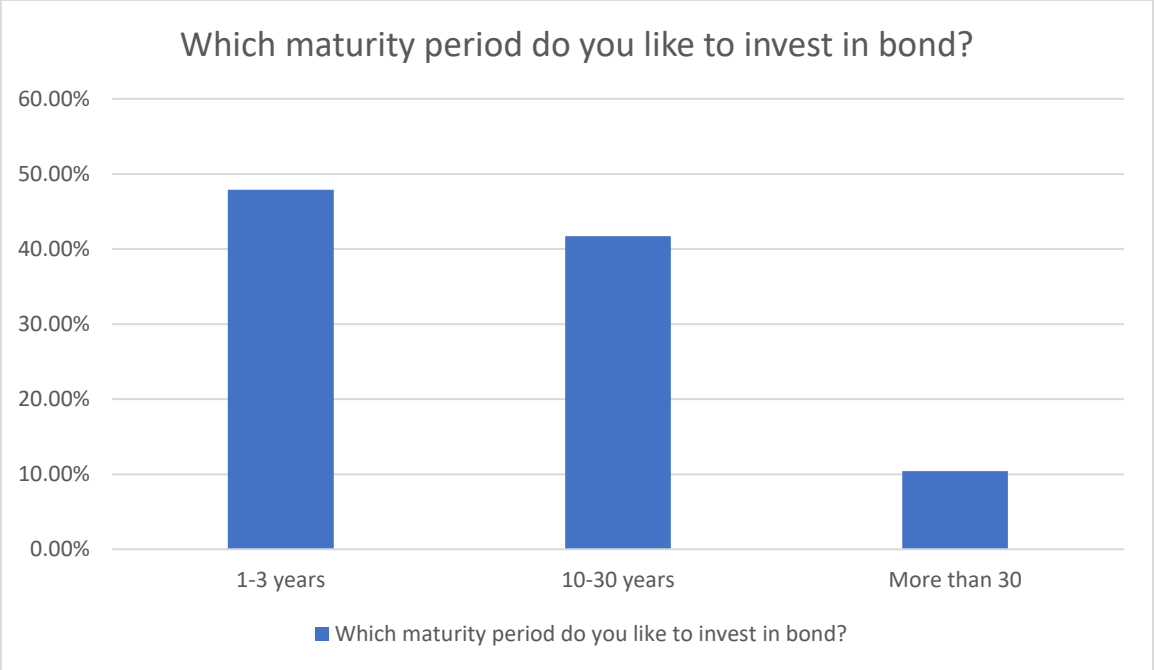
Percentage	
Firms	**14.9%**
Government	**72.3%**
supernational entities	**12.8%**
Regions and municipalities	**_**



In this survey we found that 14.9% population prefer firms for issue bond, 72.3% population prefer government for issue bond, 12.8% population prefer supernational entities for issue bond and 0% population do not prefer regions and municipalities for issue of bond.

14.Which maturity period do you like to invest in bond?

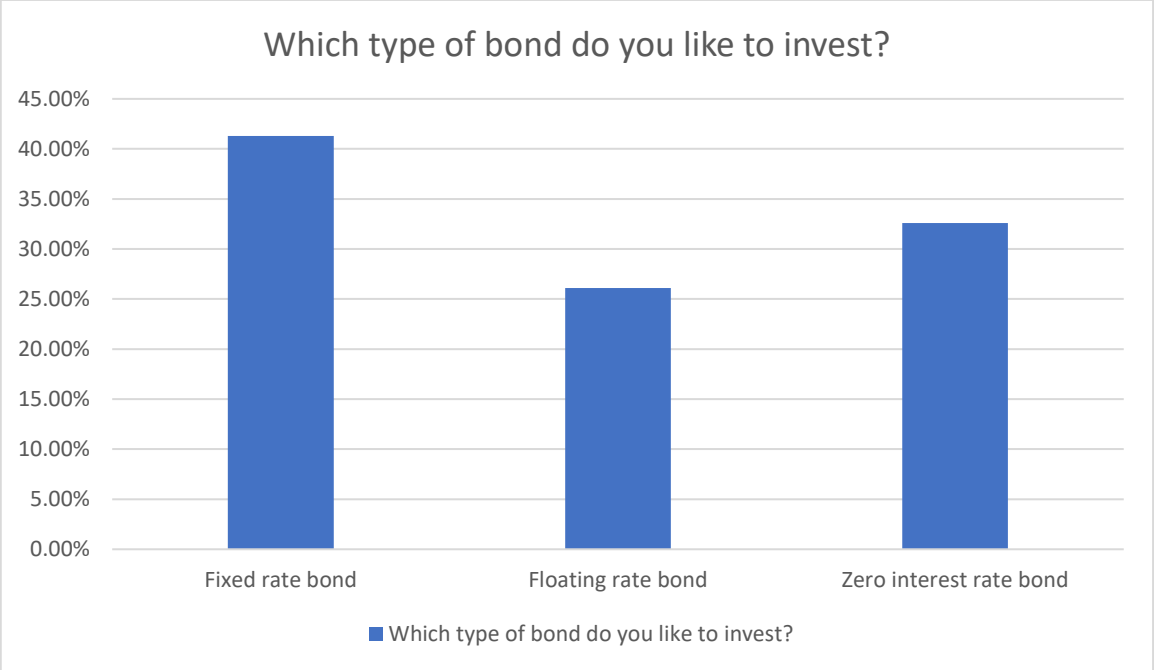
Percentage	
1-3 years	**47.9%**
10-30 years	**41.7%**
More than 30	**10.4%**



In this survey we found that 47.9% population like to invest in 1-3 years of maturity period, 41.7% population like to invest in 10-30 years of maturity period and 10.4% population like to invest more than 30 years of investment in bond.

15.Which type of bond do you like to invest?

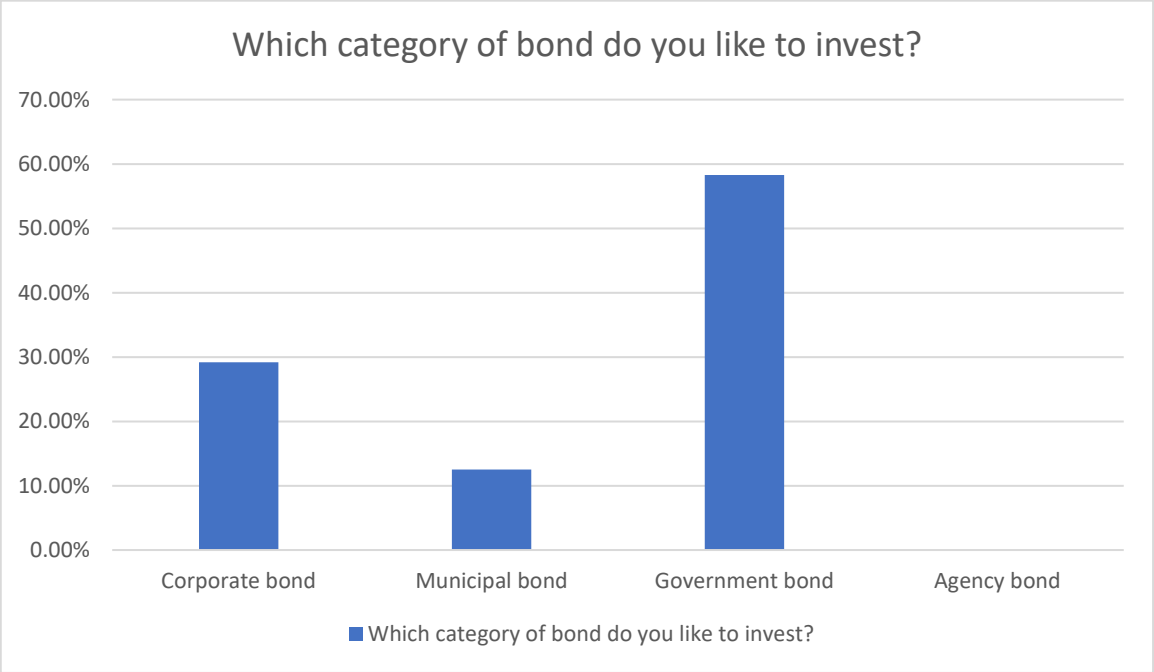
Percentage	
Fixed rate bond	**41.3%**
Floating rate bond	**26.1%**
Zero interest rate bond	**32.6%**



In this survey we found that 41.3% population are like to invest in fixed rate bond, 26.1% population are like to invest in floating rate bond and 32.6% population are like to invest in zero interest rate bond.

16.Which category of bond do you like to invest?

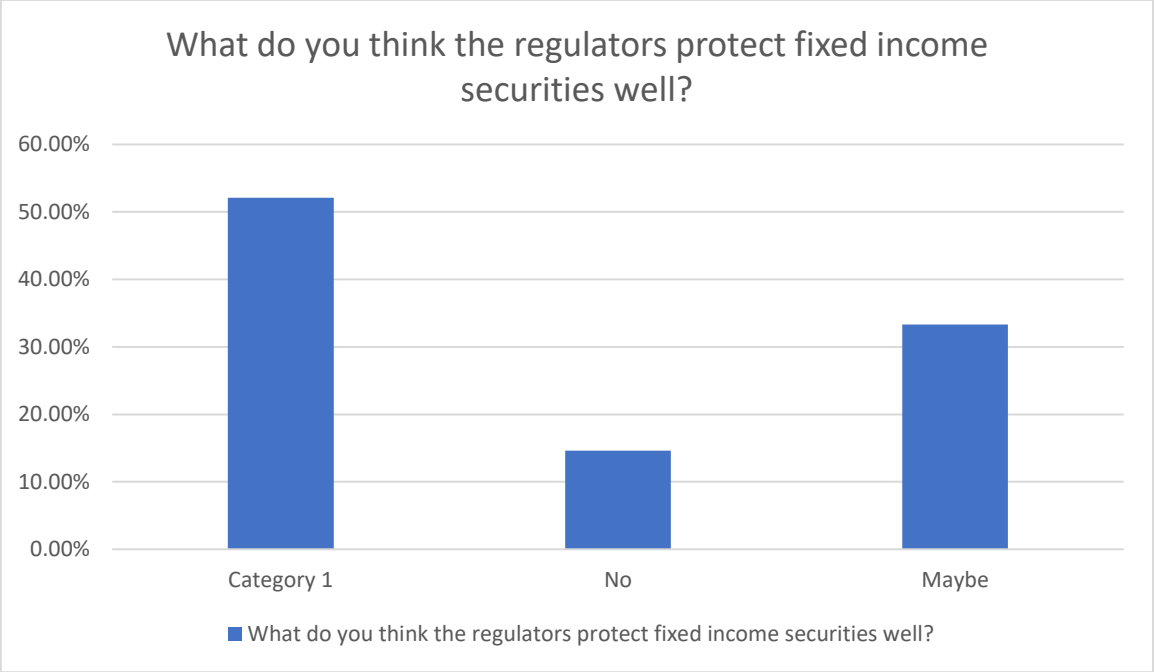
Percentage	
Corporate bond	**29.2%**
Municipal bond	**12.5%**
Government bond	**58.3%**
Agency bond	**_**



In this survey we found that 29.2% population are like to invest in corporate bond, 12.5% population are like to invest in municipal bond, 58.3% population are like to invest in government bond and 0% population are not like to invest in agency bond.

17.What do you think the regulators protect fixed income securities well?

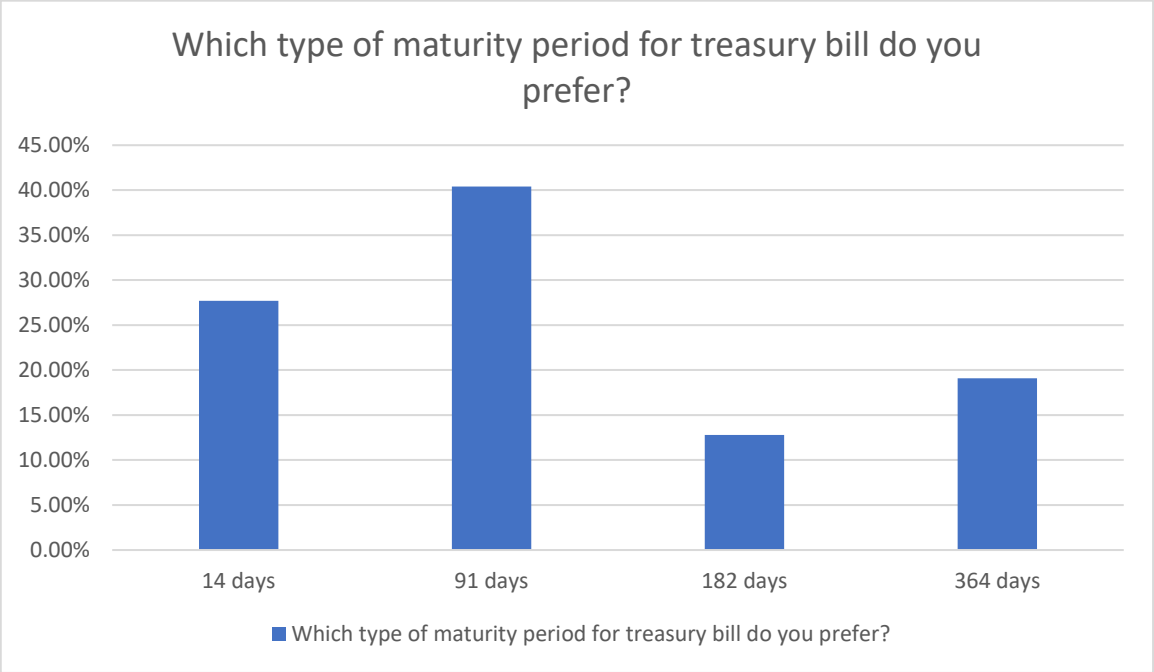
Percentage	
Yes	**52.1%**
No	**14.6%**
Maybe	**33.3%**



In this survey we found that 52.1% population are think that regulators protect fixed income securities well, 14.6% population think that regulators do not protect fixed income securities well and 33.3% population think that regulator barely protect fixed income securities well.

18.Which type of maturity period for treasury bill do you prefer?

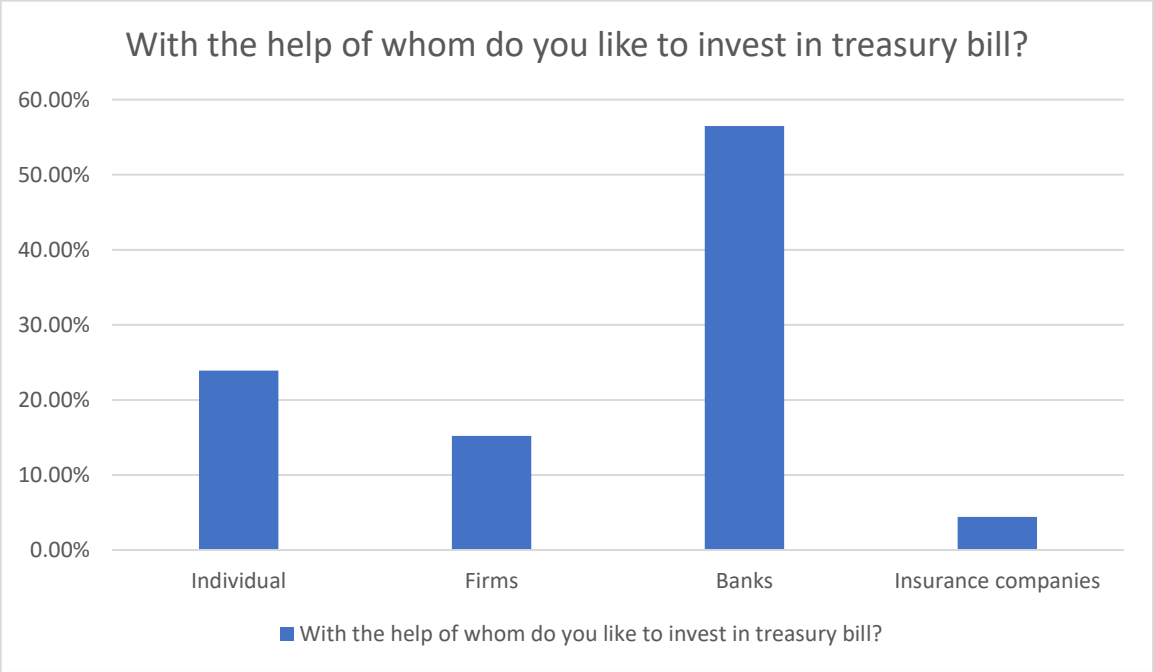
Percentage	
14 days	**27.7%**
91 days	**40.4%**
182 days	**12.8%**
364 days	**19.1%**



In this survey we found that 27.7% population prefer 14days of maturity period for treasury bill, 40.4% population prefer 91days of maturity period for treasury bill, 12.8% population prefer 182days of maturity period for treasury bill and 19.1% population prefer 364days of maturity period for treasury bill.

19.With the help of whom do you like to invest in treasury bill?

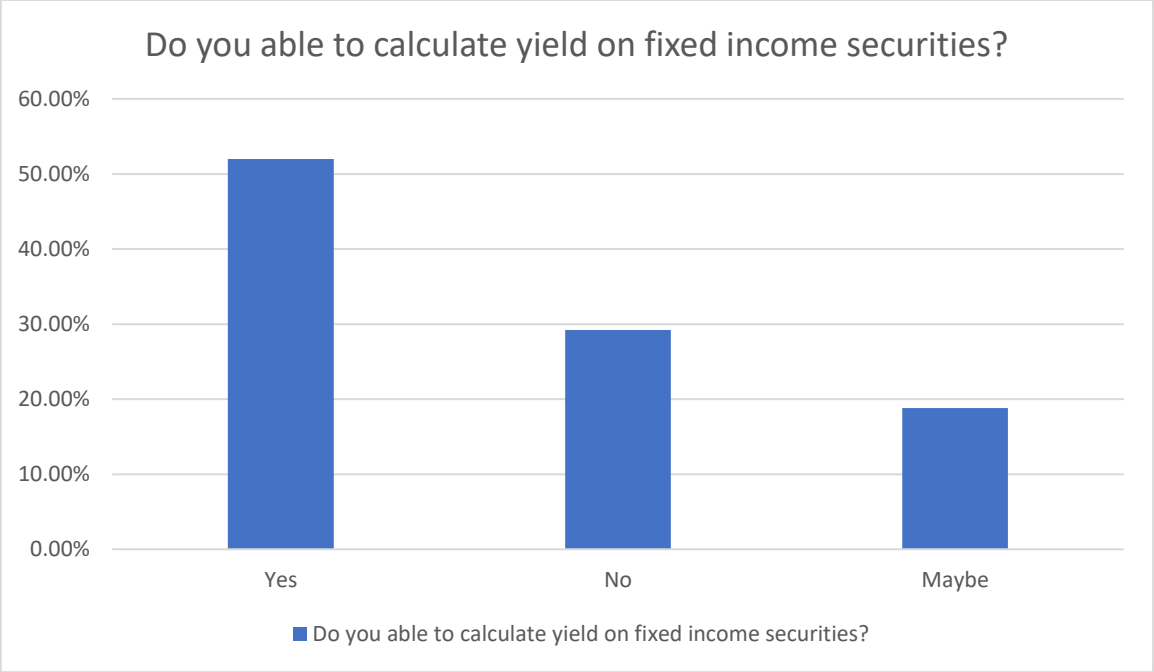
Percentage	
Individual	**23.9%**
Firms	**15.2%**
Banks	**56.5%**
Insurance companies	**4.4%**



In this survey we found that 23.9% population like to invest with the help of individuals, 15.2% population like to invest with the help of firms, 56.5% population like to invest with the help of banks and 4.4% population like to invest with the help of insurance companies.

20.Do you able to calculate yield on fixed income securities?

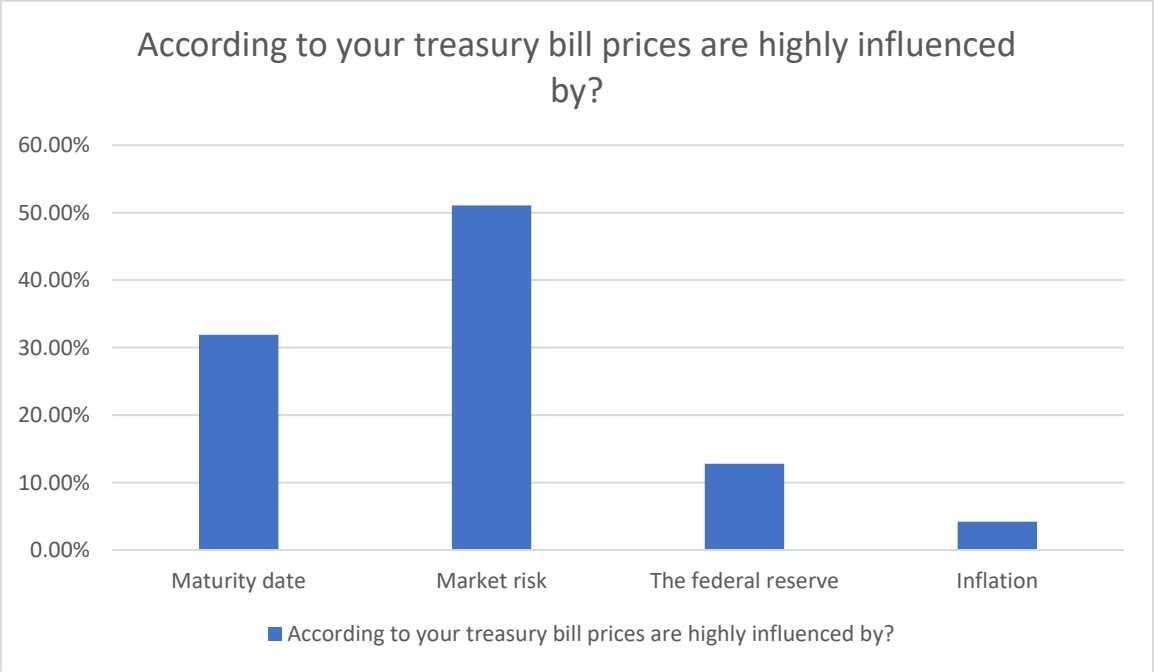
Percentage	
Yes	**52.%**
No	**29.2%**
Maybe	**18.8%**



In this survey we found that 52.1% population are able to calculate yield on fixed income securities, 29.2% population are not able calculate yield on fixed income securities and 18.8% population are barely calculate yield on fixed income securities.

21.According to your treasury bill prices are highly influenced by?

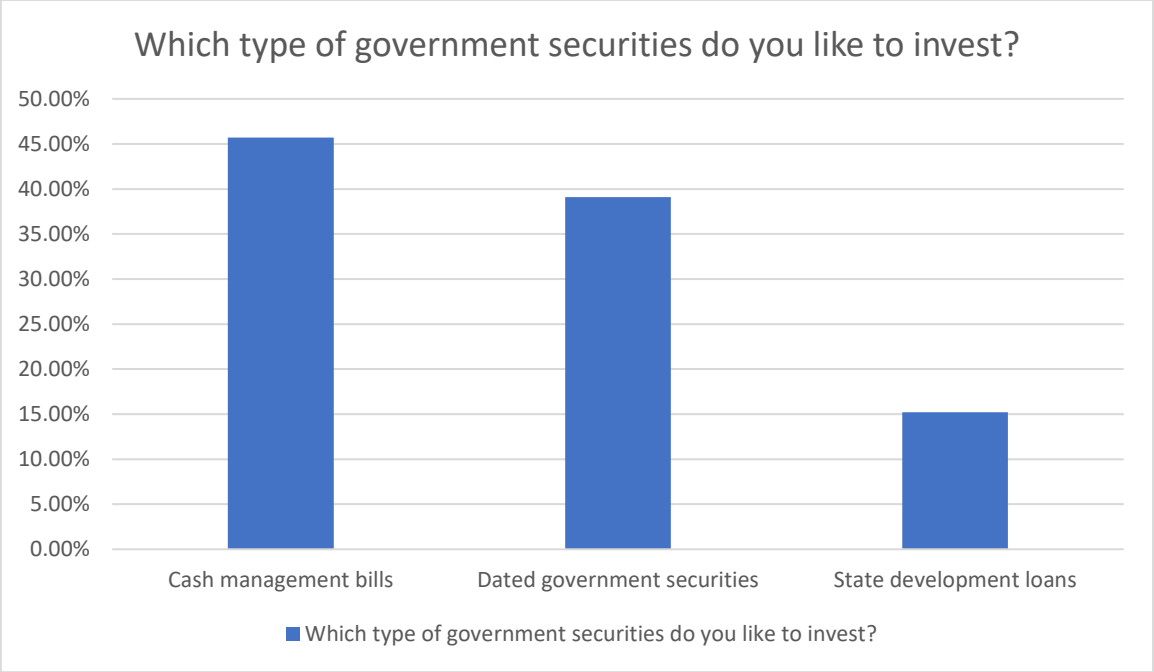
Percentage	
Maturity date	**31.9%**
Market risk	**51.1%**
The federal reserve	**12.8%**
Inflation	**4.2%**



In this survey we found that 31.9% population thinks that maturity date are highly influenced for treasury bill prices, 51.1% population thinks that market risk are highly influenced for treasury bill prices, 12.8% population thinks that the federal reserve are highly influenced for treasury bill prices and 4.2% population thinks that inflation are highly influenced for treasury bill prices.

22.Which type of government securities do you like to invest?

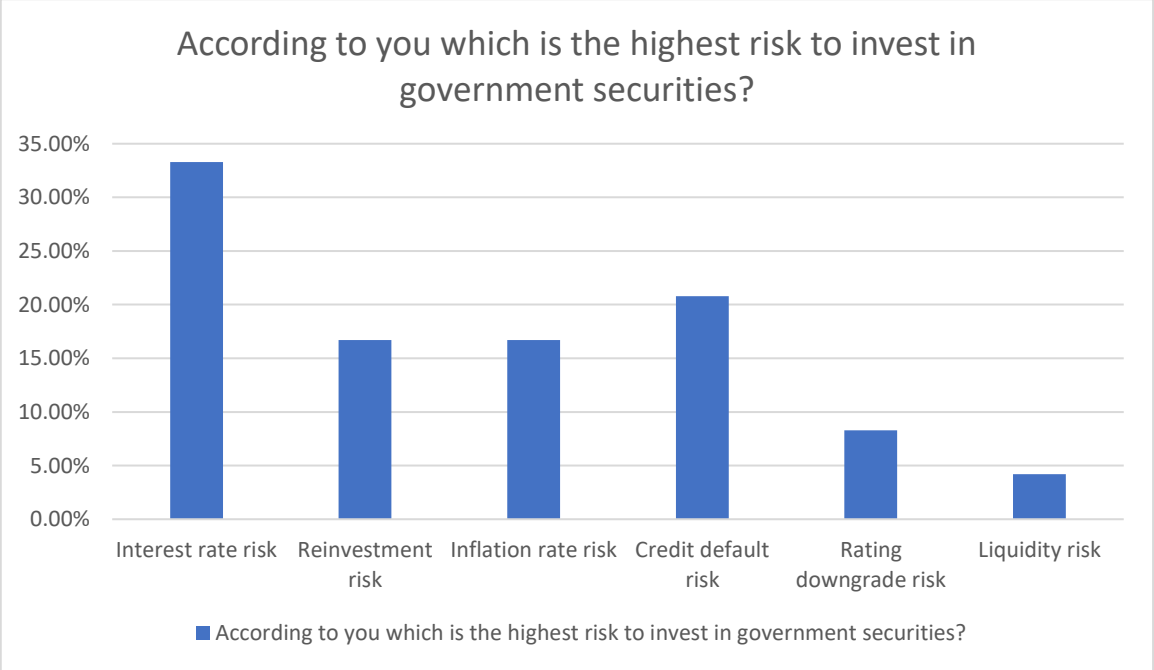
Percentage	
Cash management bills	**45.7%**
Dated government securities	**39.1%**
State development loans	**15.2%**



In this survey we found that 45.7% population are like to invest in cash management bill, 39.1% population are like to invest in dated government securities and 15.2% population are like to invest in state development loans in government securities.

23.According to you which is the highest risk to invest in government securities?

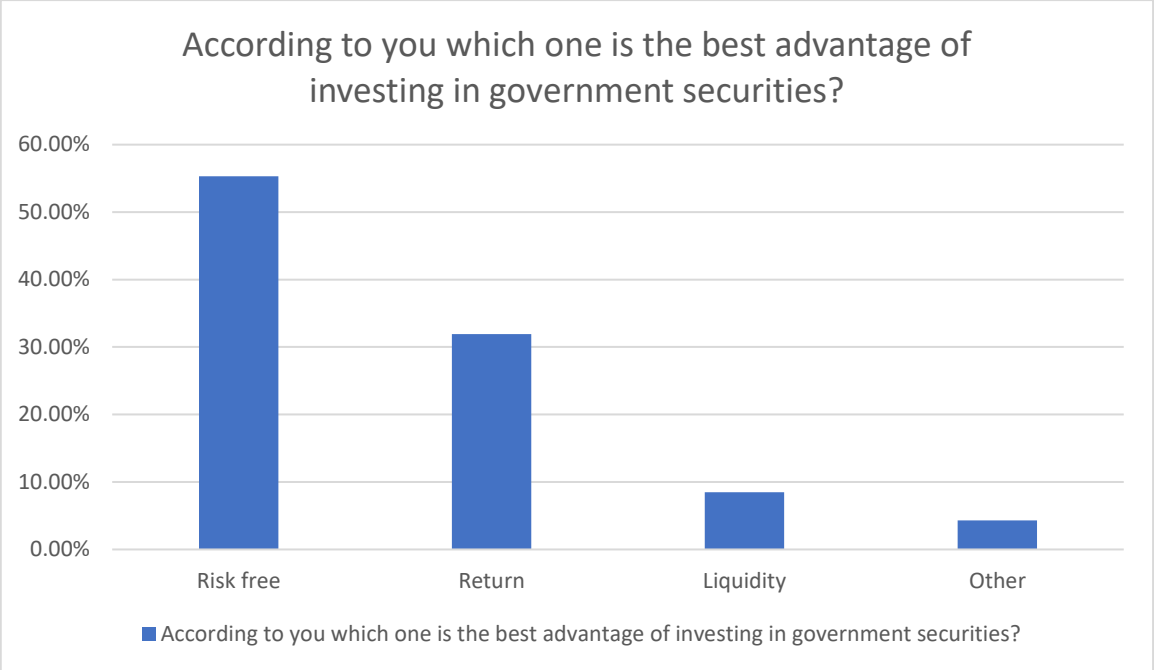
Particular	
Interest rate risk	**33.3%**
Reinvestment risk	**16.7%**
Inflation rate risk	**16.7%**
Credit default risk	**20.8%**
Rating downgrade risk	**8.3%**
Liquidity risk	**4.2%**



In this survey we found that 33.3% population thinks interest rate risk is the highest risk to invest, 16.7% population thinks reinvestment risk is the highest risk to invest, 16.7% thinks inflation rate risk is the highest risk to invest, 20.8% population thinks credit default risk is the highest risk to invest, 8.3% population thinks rating downgrade risk is the highest risk to invest and 4.2% population thinks liquidity risk is the highest risk to invest in government securities.

24.According to you which one is the best advantage of investing in government securities?

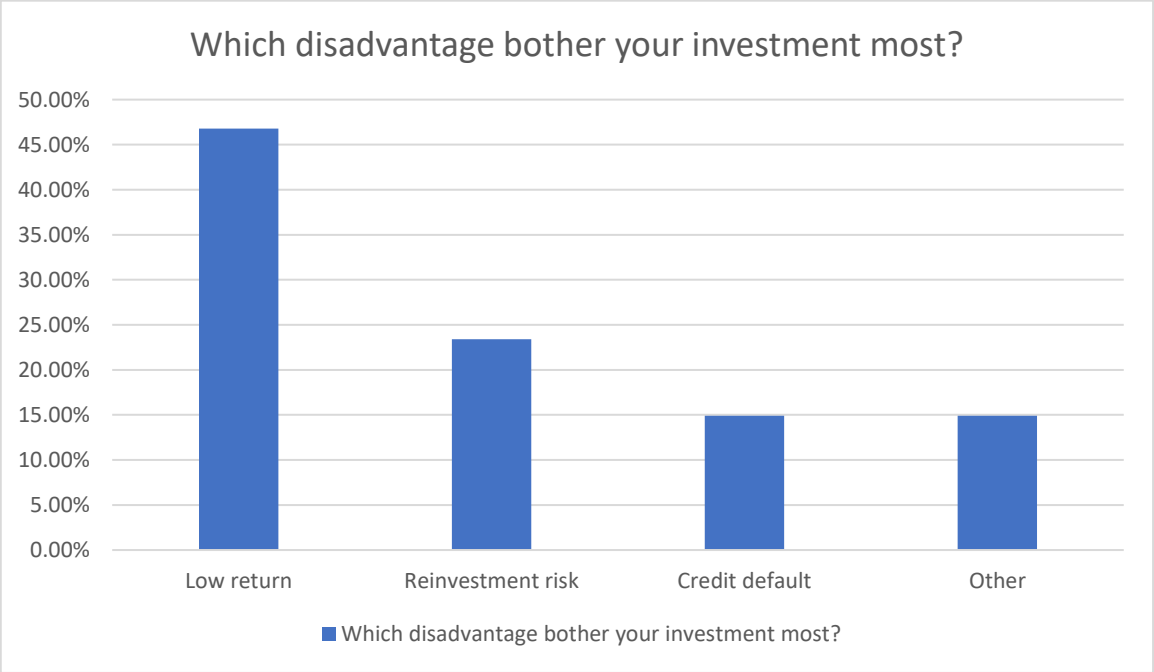
Percentage	
Risk free	**55.3%**
Return	**31.9%**
Liquidity	**8.5%**
Other	**4.3%**



In this survey we found that 55.3% population thinks risk free is the best advantage, 31.9% population thinks return is the best advantage, 8.5% population thinks liquidity is the best advantage and 4.3% population thinks there are other best advantage to invest in government securities.

25.Which disadvantage bother your investment most?

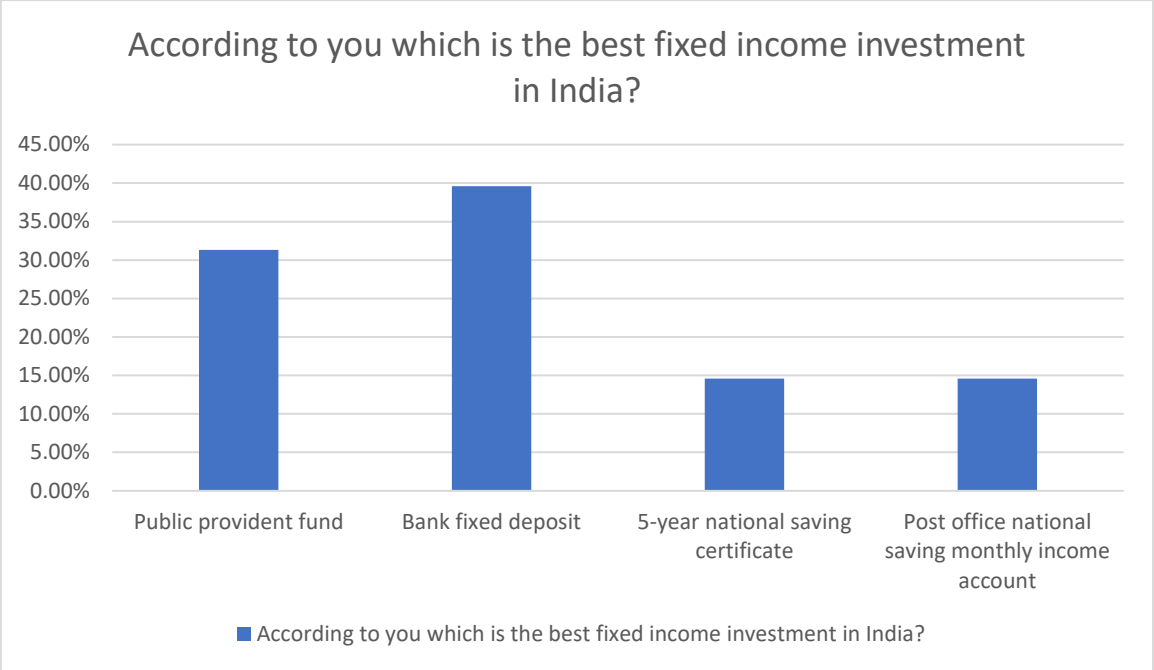
Percentage	
Low return	**46.8%**
Reinvestment risk	**23.4%**
Credit default	**14.9%**
Other	**14.9%**



In this survey we found that the disadvantage bother investor most. 46.8% population thinks low return bother most, 23.4% population thinks reinvestment risk bother most, 14.9% population thinks credit default bother most and 14.9% population thinks there are other disadvantage that bother most.

26. According to you which is the best fixed income investment in India?

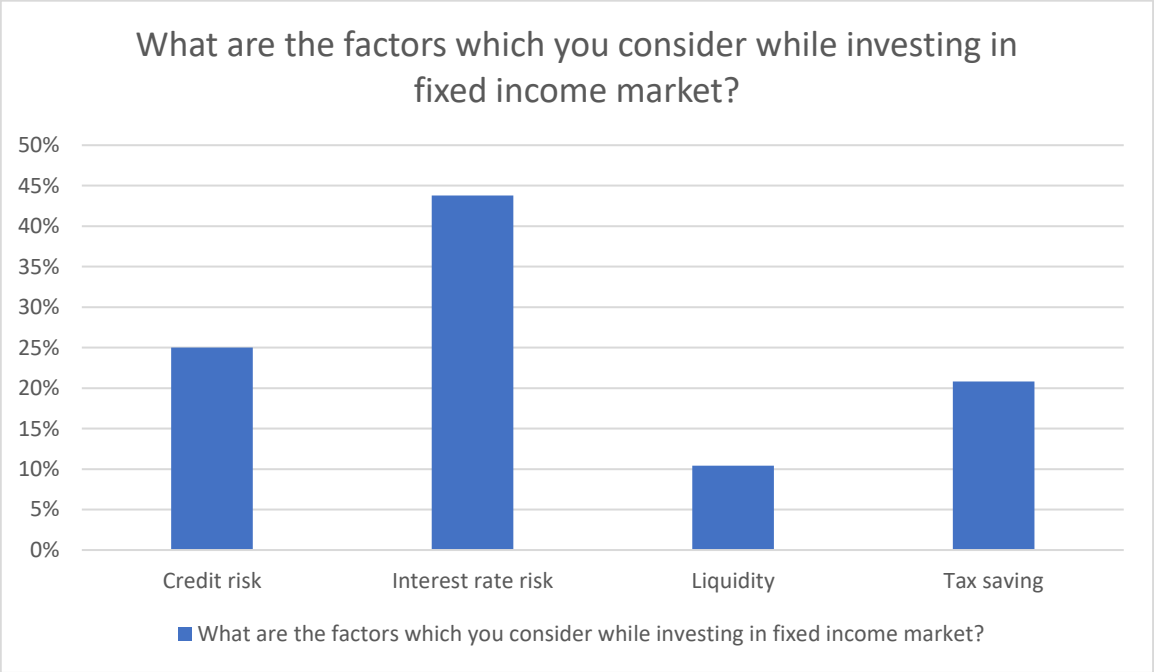
Percentage	
Public provident fund	**31.2%**
Bank fixed deposit	**39.6%**
5-year national saving certificate	**14.6%**
Post office national saving monthly income account	**14.6%**



In this survey we found that the best fixed income investment in India.31.3% population thinks public provident fund is the best, 39.6% population thinks bank fixed deposit is the best, 14.6% population thinks 5-year national saving certificate is the best and 14.6% population thinks post office national saving monthly income account is the best fixed income investment in India.

27.What are the factors which you consider while investing in fixed income market?

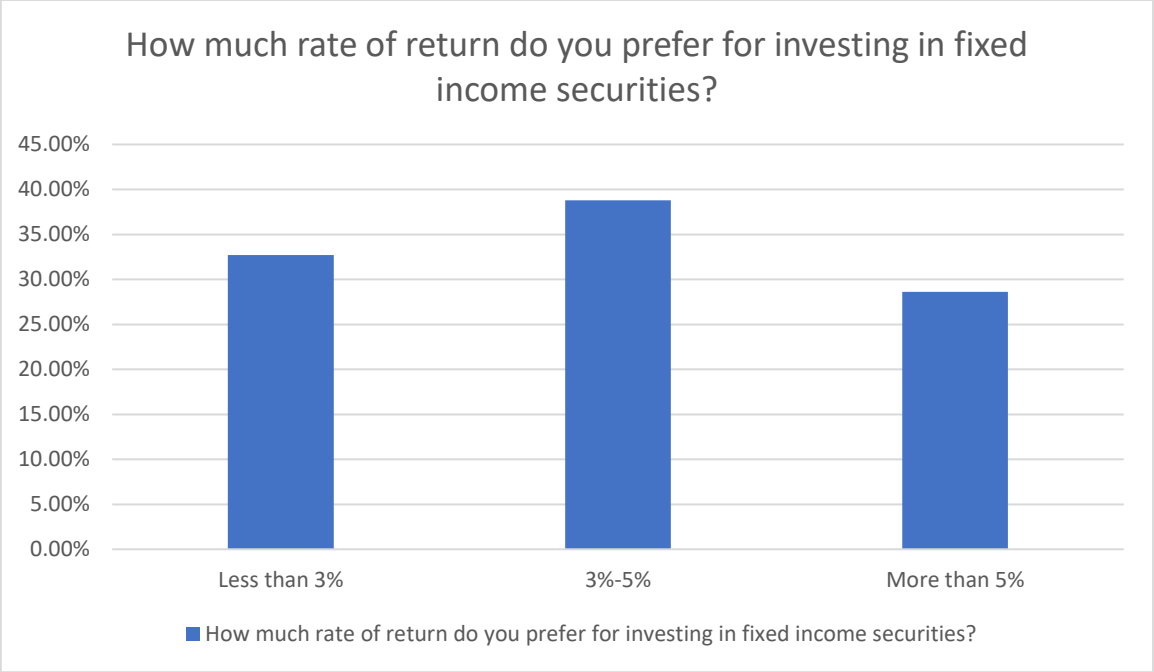
Percentage	
Credit risk	**25%**
Interest rate risk	**43.8%**
Liquidity	**10.4%**
Tax saving	**20.8%**



In this survey we found that the factor you consider while investing in fixed income securities. 25.% population consider credit risk, 43.8% population consider interest rate risk, 10.4% population consider liquidity and 20.8% population consider tax saving while investing in fixed income securities.

28.How much rate of return do you prefer for investing in fixed income securities?

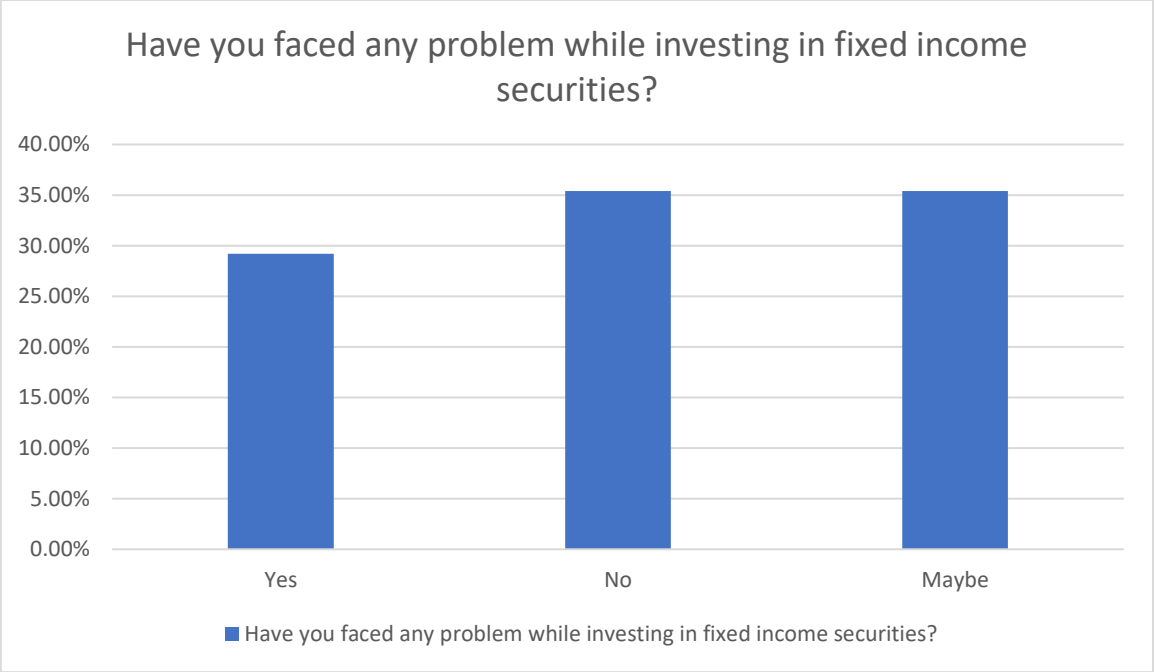
Percentage	
Less than 3%	**32.6%**
3%-5%	**38.8%**
More than 5%	**28.6%**



In this survey we found that 32.7% population prefer less than 3% rate of return, 38.8% population prefer 3%-5% rate of return and 28.6% population prefer more than 5% rate of return while investing in fixed income securities.

29.Have you faced any problem while investing in fixed income securities?

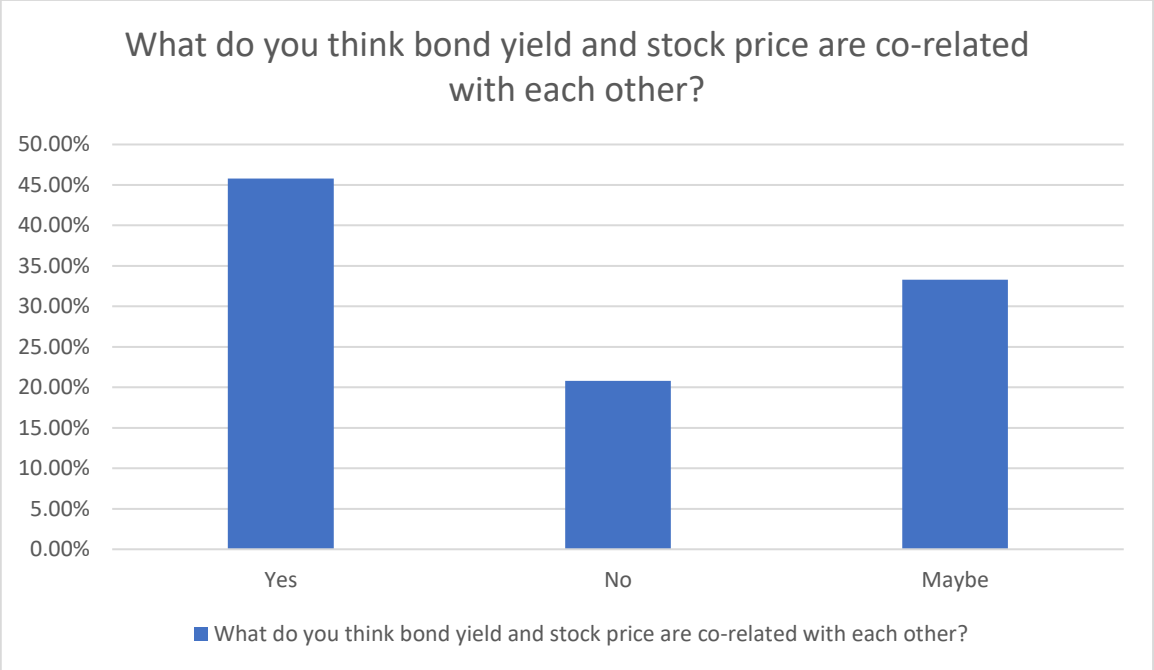
Percentage	
Yes	**29.2%**
No	**35.4%**
Maybe	**35.4%**



In this survey we found that 29.2% population face problem while investing in fixed income securities, 35.4% population does not face problem while investing in fixed income securities and 35.4% population barely face problem while investing in fixed income securities.

30.What do you think bond yield and stock price are co-related with each other?

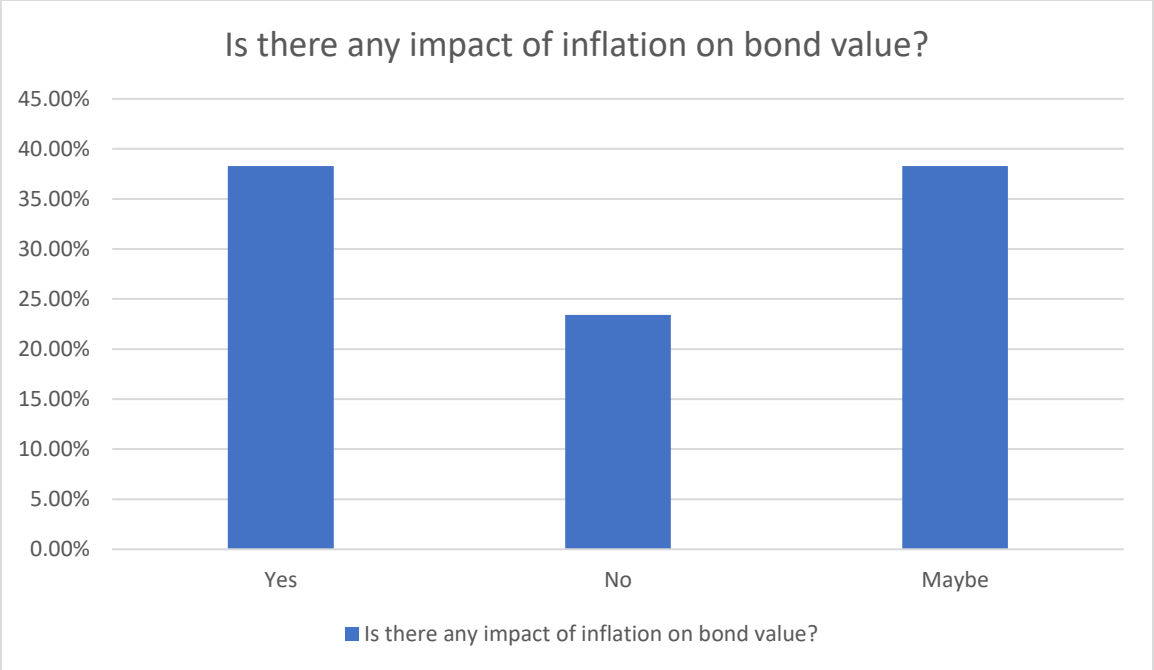
Percentage	
Yes	**45.8%**
No	**20.8%**
Maybe	**33.3%**



In this survey we found that 45.8% population thinks bond yield and stock price are co-related with each other, 20.8% population thinks bond yield and stock price are not co-related with each other and 33.3% population thinks bond yield and stock price are barely co-related with each other.

31.Is there any impact of inflation on bond value?

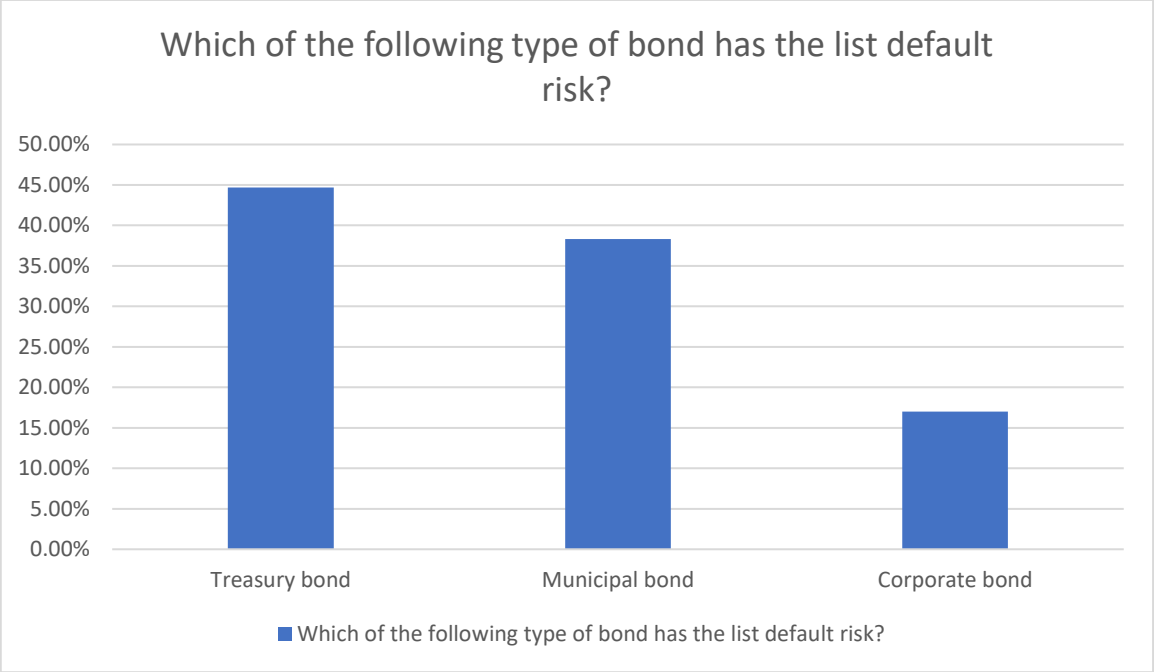
Percentage	
Yes	**38.3%**
No	**23.4%**
Maybe	**38.3%**



In this survey we found that 38.3% population thinks there is impact of inflation on bond value, 23.4% population thinks there is no impact of inflation on bond value and 38.3% population thinks there is some impact of inflation on bond value.

32.Which of the following type of bond has the list default risk?

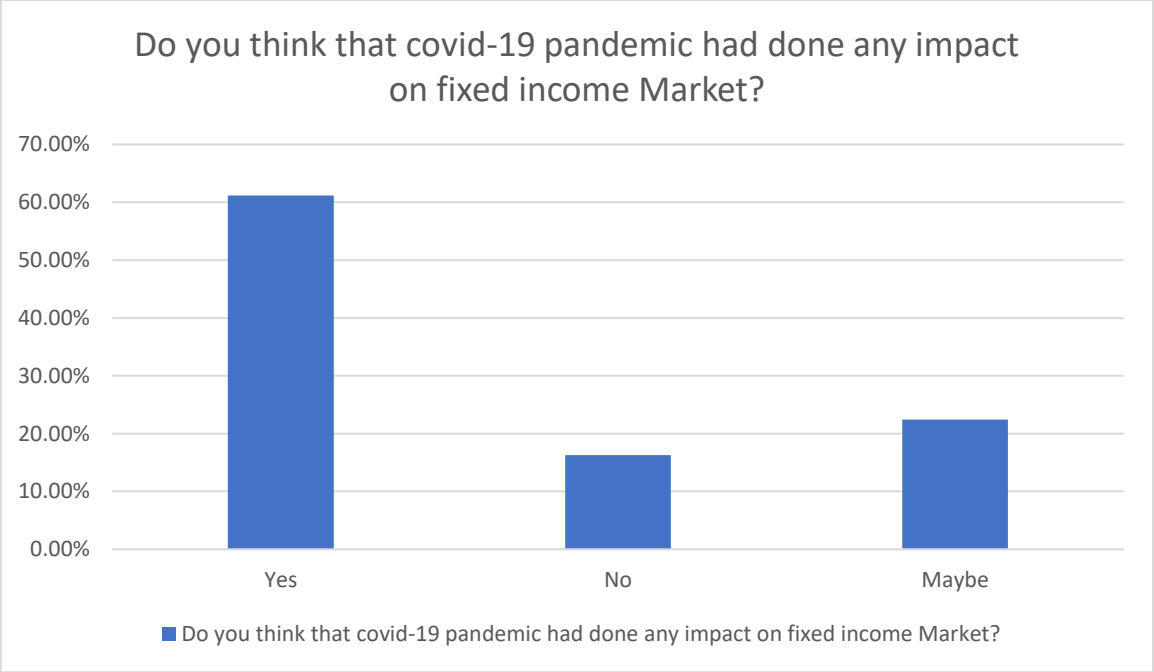
Percentage	
Treasury bond	**44.7%**
Municipal bond	**38.3%**
Corporate bond	**17%**



In this survey we found that 44.7% population thinks treasury bond has list default risk, 38.3% population thinks municipal bond has list default risk and 17% population thinks corporate bond has list default risk.

33.Do you think that covid-19 pandemic had done any impact on fixed income Market?

Percentage	
Yes	**61.2%**
No	**16.4%**
Maybe	**22.4%**



In this survey we found that 61.2% population thinks covid-19 pandemic have impact on fixed income securities, 16.3% population thinks covid-19 pandemic don't have any impact on fixed income securities and 22.4% population thinks covid-19 pandemic have done some impact on fixed income securities.

CHAPTER- 5 CONCLUSION, SUGGESTION

❖ **Suggestion: -**

- Floating Rate Savings Bonds 2020, issued by RBI, is among the best-guaranteed investment products for the current interest scenario. That it is floating rate means that your interest is not the same over the seven-year tenure.
- For those a little more adventurous and used to capital markets, buying treasury bills and government securities through the primary auction is now possible even for retail investors. Treasury bills with tenures of 91, 182 and 364 days, and longer tenure gilts are available on primary issue. You can check with your broker whether the same is made available through them. A minimum amount for a bid is ₹10,000. This is an auction, which means you will know the 'yield' only after the competitive bidding process.
- For more seasoned investors, longer dated government securities are available in the secondary market as well. These can offer safety and interest income. For those who believe safety is paramount, these can be great options, provided you understand how prices move in the fixed income market.
- When we invest in fixed income securities some points need to be kept in mind by the investors –

  A. Coupon price.
  B. Timing of cash flows.
  C. Information about the issue and the credit rating.
  D. secured and unsecured nature of bonds.

- check the yield to maturity of the instruments with the YTM of other comparable debt security with the YTM, s of other comparable debt securities of the same class and features.
- Remember that yields and price are inversely related. So, you will be able to obtain a higher yield at a lower price.
- It is desirable to check on the liquidity of any corporate debt instruments before investing in it so as to ensure the availability of satisfactory exit options.

❖ **Conclusion: -**

- There are a variety of fixed-income investments and investment strategies available. The investor should make sure to research any fixed income opportunity before investing thoroughly. Many bonds have long maturity dates such as ten years or more. Investing in a bond means tying up a substantial amount of your investment capital for a long period; the investor has to make sure to the best use of money with his choice of investments.
- Bond is a debt security (fixed income investment). They have a considerably lower risk than equities. To diversify their portfolios, certain investors can consider to invest in bonds. They can provide stability of returns to an investment portfolio. However, investors can simply choose good debt mutual funds which invest in bonds to invest in this sub-asset class in a simplified manner.
- Bonds are just like IOUs. Buying a bond means you are lending out your money. Bonds are also called fixed-income securities because the cash flow from them is fixed. Stocks are equity; bonds are debt. Issuers of bonds are governments and corporations. A bond is characterized by its face value, coupon rate, maturity, and issuer.
- Yield is the rate of return you get on a bond. When price goes up, yield goes down and vice versa. When interest rates rise, the price of bonds in the market falls and vice versa. Bills, notes, and bonds are all fixed-income securities classified by maturity.
- Government bonds are the safest, followed by municipal bonds, and then corporate bonds. Bonds are not risk free. It's always possible–especially for corporate bonds–for the borrower to default on the debt payments. High risk/high yield bonds are known as junk bonds. You can purchase most bonds through a brokerage or bank. Brokers often don't charge a commission to buy bonds but instead markup the price.
- Government securities like treasury bills are one of the popular, safest, optimum returns and shorter tenure instrument through which any small or professional investor can park their spare funds and earn good returns with gilt-edged security. Treasury bills are the most popular mode of investment in the United States, however, in India, it is still not so preferred.
- There are most of people are known about fixed income securities. Most of the population know that fixed income securities are safe for investment. But some of people are never invested in fixed income securities, only few are invested in it. There are some people who faced problem while investing in fixed income securities.
- In fixed income securities there some kind of people who have different type of goals:

a. They want to keep the money, they invested safe and readily available for short term need.
b. They want to generate a steady stream of income form their investment.
c. They want to generate some income with different types of opportunities for the investment to grow in value.
d. They want generate long term growth from their investment**.**

- Every investment is inherently connected with risk. Its existence and diversity among various types of investments is one of the driving forces behind the development of the capital market. The risk has also caused emergence and development of alternative investments. Alternative investments constitute an effective tool for risk diversification; however, they are not suitable for all investors.
- Institutional investors, including the banks, pension funds, large companies as well as individual investors within the wealth management sector, constitute a dominant group of the investors on the alternative investments market. Investors considering such investments should rely on their own preferences regarding the acceptable risk as well as on the entities acting as the trustees of the investors' assets. Often, it is the experience gained during management of own alternative investment portfolio, which allows verification and assessment of the acceptable level of the risk, definition of the maximum loss tolerance, and designation of achievable financial targets.
- Most of fixed income investor prefer government for issuing a bond. Some of people like to invest in fixed rate bond with maturity period of 1-3 years. There is highest priority for government bond.
- Most of the people chose bank of investing in treasury bill, they prefer minimum days of maturity is 91 days.
- There is minimum no. of people are like to invest in cash management bills in government securities. Interest rate risk is the highest risk to invest in government securities.
- Development of long-term debt markets is critical for the mobilization of the huge magnitude of funding required to finance potential businesses as well as infrastructure expansion. Despite a plethora of measures adopted by the authorities over the last few years, India has been distinctly lagging behind other developed as well as emerging economies in developing its corporate debt market. The domestic corporate debt market suffers from deficiencies in products, participants and institutional framework.
- For India to have a well-developed, vibrant, and internationally comparable corporate debt market that is able to meet the growing financing requirements of the country's dynamic private sector, there needs to be effective co-ordination and co-operation between the market participants that include investors and corporates issuing bonds as well as the regulators. Issues such as crowding of debt markets by government securities cannot be addressed by market participants and regulators alone. Better management of public debt and cash could result in a reduction in the debt requirements of the

government, which in turn would provide more market space and create greater demand for corporate debt securities.

- Clearly, the market development for corporate bonds in India is likely to be a gradual process as experienced in other countries. It is important to understand whether the regulators have sufficient willingness to shift away from a loan-driven bank-dependent economy and also whether the corporations themselves have strong incentives to help develop a deep bond market Only a conjunction of the two can pave the way for the systematic development of a well-functioning corporate debt market.
- A vibrant debt market provides an alternative to conventional bank finances and also mitigates the vulnerability of foreign currency sources of funds. From the perspective of financial stability, there is a need to strengthen the debt market. Limited Investor base, limited number of issuers and preference for bank finance over bond finance are some of the other obstacles faced in development of a deep and liquid debt market.

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ANNEXURE

❖ QUESTIONNAIRE

- NAME: - _____
- GENDER
    - MALE
    - FEMALE
    - OTHER
- AGE
    - BELOW 20
    - 21-30
    - ABOVE 30
- PROFESSION
    - STUDENT
    - PROFESSOR
    - BUSINESSMAN
    - OTHER
- Are you aware about fixed income securities?
    - YES
    - NO
    - MAYBE
- Do you think it is safe to invest in fixed income securities?
    - YES
    - NO
    - MAYBE
- Do you ever invest in fixed income securities?

- YES
- NO

- What kind of investment do you prefer?

  - SHORT TERM
  - MEDIUM TERM
  - LONG TERM

- What is your investment experience?

  - BEGINNER
  - MODERATELY EXPERIENCED
  - KNOWLEDEABLE
  - EXPERIENCED

- What do you prefer for investment?

  - STOCK MARKET
  - FIXED INCOME MARKET
  - MUTUAL FUND

- How frequently do you invest for fulfilling your purpose?

  - DAILY
  - WEEKLY
  - MONTHLY
  - OCCASIONALLY

- What is your primary goal for this investment?

  - Protection of capital
  - Steady stream of income
  - Growth of investment value
  - Long term growth

- Which type of fixed income securities do you like to invest?

  - Bond

- Treasury bill
- Government securities
- Commercial paper
- Certificate of deposit

- Which type of bond issuer do you prefer?

  - Firms
  - Government
  - Supernational entities
  - Regions and municipalities

- Which maturity period do you like to invest in bond?

  - 1-3 years
  - 10-30 years
  - More than 30

- Which type of bond do you like to invest?

  - fixed rate bond
  - Floating rate bond
  - Zero interest rate bond

- Which category of bond do you like to invest?

  - Corporate bond
  - Municipal bond
  - Government bond
  - Agency bond

- What do you think the regulators protect fixed income securities well?

  - Yes
  - No
  - Maybe

- Which type of maturity period for treasury bill do you prefer?

- 14 days
- 91 days
- 182days
- 364 days

- With the help of whom do you like to invest in treasury bill?

  - Individual
  - Firms
  - Banks
  - Insurance companies

- Do you able to calculate yield on fixed income securities?

  - Yes
  - No
  - Maybe

- According to you treasury bill prices are highly influenced by?

  - maturity date
  - Market risk
  - The federal reserve
  - Inflation

- Which type of government securities do you like to invest?

  - Cash management bills
  - Dated government securities
  - State development loans

- According to you which is the highest risk to invest in government securities?

  - Interest rate risk
  - Reinvestment risk
  - Inflation rate risk
  - Credit default risk
  - Rating downgrades risk

- Liquidity Risk

- According to you which one is the best advantage of investing in government securities?

  - Risk free
  - Return
  - Liquidity
  - Other

- Which disadvantage bother your investment most?

  - Low return
  - Reinvestment risk
  - Credit default
  - Other

- According to you which is the best fixed income investment in India?

  - Public provident
  - Fund Bank fixed deposit
  - 5-year national saving certificate
  - Post office national saving monthly income account

- What are the factors which you consider while investing in fixed income market?

  - Credit risk
  - Interest rate risk
  - Liquidity
  - Tax saving

- How much rate of return do you prefer for investing in fixed income securities?

  - less than 3%
  - 3%-5%
  - More than 5%

- Have you faced any problem while investing in fixed income securities?

  - Yes

- No
- Maybe

- What do you think bond yield and stock price are co-related with each other?

  - Yes
  - No
  - Maybe

- Is there any impact of inflation on bond value?

  - Yes
  - No
  - Maybe

- Which of the following type of bond has the list default risk?

  - Treasury bond
  - Municipal bond
  - Corporate bond

- Do you think that covid-19 pandemic had done any impact on fixed income Market?

  - Yes
  - No
  - Maybe