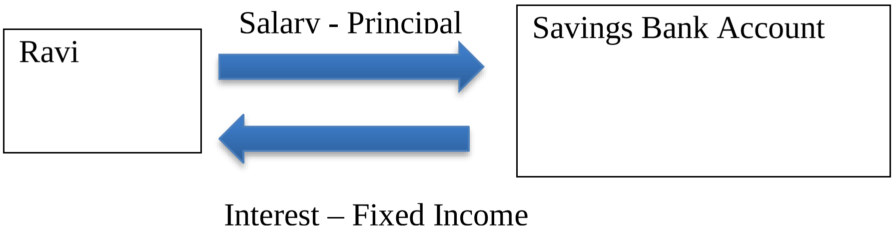
Fixed Income Booklet

1. Introduction – Concept of Fixed Income

What is fixed income?

Ravi's (could be any name) salary is deposited into his Savings Account in a bank. The bank pays interest on his balance in the savings account.

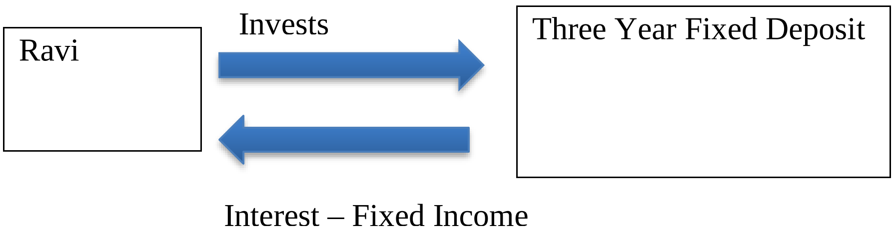
The interest paid on Ravi's balance in the savings account is called Fixed Income as Ravi will receive fixed rate of return from the bank where his salary is deposited.



Principal – Rs 100 Interest – 6% per annum

Fixed Income = Rs 6 every year as long as balance is maintained in Savings Bank Account

Bank pays 8% for Fixed Deposits with a Maturity Period of 3 years. Ravi will earn higher interest by keeping money in Fixed Deposit than keeping money in Savings Bank Account.



Three Basic Concepts of Fixed Income – Principal, Interest and Maturity

Fixed income returns are steady returns on your investments. It is either fixed or linked to fixed income instrument characteristics.

- **Face Value:** The face value of a bond is also known as par value or principal amount. It is basically the amount of money a holder will get back once a bond matures. A newly issued bond usually sells at its face value.

- **Coupon rate:** The interest rate on a bond, expressed as a percentage of the bond's face value. The buyer of bond will receive the coupon at this rate, which is the percentage of its face value until the maturity of bond.

- **Maturity date:** The date when the principal amount of a security becomes due and payable, if not subject to prior call or redemption.

- **Yield to maturity:** A yield on a security calculated by assuming that interest payments will be made until the final maturity date, at which point the principal will be repaid by the issuer. Yield to maturity is essentially the discount rate at which the present value of future payments (investment income and return of principal) equals the price of the security.

- If interest rates rise or fall your fixed deposit value remains, the same while your bond value changes as per the rate of increase or decrease in interest rates.

2. Fixed Income universe

- **PPF (Public Provident Fund)** provides tax benefits in the form of tax exemption at the time of investment and interest accrued is also tax free. However holding period is 15 years with option to withdraw 50% in year 7. Interest rate is reset annually, based on the yield on the ten year government bond but the new rate is applicable only for fresh investments. PPF rate is 8.10% for this year. PPF is safe, provides stable interest, has tax benefits but does not have liquidity and holding period is long. Investment limit is Rs 150,000 per year.
- **Post Office Savings** Schemes have shorter maturity than PPF, of one to five years, provides monthly income, has higher rates for senior citizens and has exemption benefits at time of investments. Interest rates are 7.0% to 7.8% for 1 to 5 years maturity and 8.5% for senior citizens. Interest rates are reset annually based on ten year government bonds but new rate is applicable only for fresh investments. Interest is fully taxed. Penalty is levied on premature withdrawals. Post Office Savings is safe, provides stable returns, tax exemption is available but interest is fully taxed and liquidity is at a price.
- **Bank Fixed Deposits** have maturity of 1 month to five years and interest rates reflect the market environment. Interest rates are currently in the range of 6.5% to 7.0% across commercial banks. Interest is fully taxed and penalty is levied on premature withdrawals. Bank FDs are safe, provide stable returns but have no tax benefits and liquidity is at a cost.
- **NCD's (Non Convertible Debentures)** floated by NBFC's that are rated AA or lower offer higher yields than bank deposits and carry maturity of 3 years to 5 years. Coupon payment is fully taxed. NCDs carry credit risk, can be sold in the market but liquidity is poor and volume of issuances are low. NCD prices rise when interest rates fall and that provides capital gains to investors. NCD yields are in the range of 9% to 10% at present.
- **Tax Free bonds** floated by PSU issuers have maturity of 10 years to 15 years carrying coupon rates of around 6% to 6.2%. Liquidity is reasonable but does come at a price as traded volumes are not very high. Tax free bonds prices rise when interest rates fall and that provides capital gains to investors.

Table 1.Fixed Income Investments

Category	Yield %	Period Years	Tax	Fixed/Floating	Liquidity	Risk
PPF	8.10%	15 years	80 C, 10(11)	Reset Every Year but Applicable to Investments for that Year	Fixed Period	No Risk
Post Office	7-7.8%	1-5 Years	80 C	Reset Every Year	Penalty	No Risk
Bank FD	6.5-7%	1-5 Years	Full Tax on Interest	Fixed	Penalty	Interest Rate Risk, Credit Risk
Tax Free Bonds	6-6.2%	10 Years, 15 Years	Interest Tax Free	Fixed	Moderate	Interest Rate Risk, Credit Risk
High Yield NCDs	9-10%	3 -5 Years	Full Tax on Interest	Fixed	Low	Interest Rate Risk, High Credit Risk
Fixed Maturity Plan	7.25%	3 Years	Inflation Indexation on 20% Capital Gains Tax	Fixed	Low	Credit Risk
Short Term Bond Funds	7.2-7.3%	>3 Years	Inflation Indexation on 20% Capital Gains Tax	Market Determined	High	Interest Rate Risk, Credit Risk
Long Term Bond Funds	7.7-7.8%	>7 Years	Inflation Indexation on 20% Capital Gains Tax	Market Determined	High	Interest Rate Risk, Credit Risk

Get the data

3. Inflation

- Inflation is the level of increase in prices for goods and services in economy.
- Interest rates before adjusting for inflation is termed as nominal interest rate whereas the interest rate after adjustment for inflation is termed as real interest rate.
- Real interest rate is of a wider importance as inflation eats up the purchasing power of the money or reduces the value and earning interest rate which is equal to or below inflation rate will generate no income on the investment made.
- Example: Illustration

  Suppose you buy a 1 year bond at face value which will give total return of 10% at the end of the year, which means you paid Rs 100 to purchase the bond and at the end of the year you received Rs 110. Thus you earn nominal interest rate 10% as we have not accounted for inflation.

  If the prevailing inflation rate is at 8%, which means value of a service that cost Rs 100 a year ago will now cost you Rs 108. We have bought Rs 100 bond which has generated nominal interest rate of 10% and after purchasing the service for Rs 108, we will be left with Rs 2 as savings. So after factoring in inflation, Rs 100 has generated income of Rs 2, which means 2% real interest rate.

  In case the inflation stands at 11% then investment of Rs 100 will make loss of 1% in real terms.

4. Credit risk

- Credit Risk is the risk of default by an issuer. It is measured as the spread between the yield on a Credit Risk bearing bond and the yield on a similar maturity government bond.
- The factors that determine the degree of credit risk include rating outlook (upgrade, stable or downgrade), business and economic environment (positive or negative) and liquidity (surplus or deficit)

Portfolio ▼	AAA /AA	BBB	B/C/D	Credit Risk
Portfolio A	80	20	0	Low
Portfolio B	60	30	10	Moderate

5.Mutual fund

- Liquid Funds are used as an alternative to short term Fixed Deposits and supplement to Savings Bank deposits. Investments of the fund are mainly into short term debt instruments like money market securities,

- FMP are closed ended schemes with a fixed period of time. The period could range from one month to as long as 5 year or even more. When the fixed period comes to an end, the scheme matures, and the money is paid back. Long Term FMP investors for period of 36 months and higher have the benefit of indexation. Tax with indexation on long term capital gain is 20%

- Short Term Bond Funds of Mutual Funds invest in government bonds and corporate bonds that have maturity of over three years but below five years. Investments held in Short Term Bond Funds for a period of three years enjoys 20% capital gains tax with indexation benefits. Yields on three year to five year government and AAA/AA+ rated corporate bonds are at levels of 7.2% to 7.3%. Liquidity is on call. Short Term Bond Funds offer safety, liquidity and potential capital gains when interest rates fall.

- Long Term Bond Funds of Mutual Funds invest in government bonds and corporate bonds that have maturity of over five years, going upto 30 years in case of government bonds. Investments held in Long Term Bond Funds for a period of three years enjoys 20% capital gains tax with indexation benefits. Yields on five year to ten years government and AAA/AA+ rated corporate bonds are at levels of 7.7% to 7.8%. Liquidity is on call. Long Term Bond Funds offer safety, liquidity and potential high capital gains when interest rates fall.

- Gilt Funds are mutual funds scheme that predominantly invest in government securities also known as G-Sec.

Mutual fund fixed income schemes are other fixed income options against bank deposits. Accrual funds such as FMPs offer long term capital gains tax advantage over bank deposits while gilt and income funds offer opportunity for earning returns from both accrual and capital gains if invested at a time when interest rates are falling. Tax free bonds that provide tax free interest are better than bank deposits.

6.Taxation

- Dividend Distribution Tax (DDT) – 28.33%
- Capital gains tax - 20% with indexation if hold more than 36 months
- Indexation - Indexation is the technique by which the initial or cost price of an asset is adjusted with inflation. Purchase price of the asset is multiplied with the indexing factor, which is the ratio of inflation level of current year to inflation level of year when asset was purchased.

Illustration

Manisha has bought Units of Long Term Income Fund in the year 2009 for Rs 100 when inflation index level was at 110. She sells the Units of Long Term Income Fund in 2014 and realises Rs 160. Inflation index level at the year of sale was 125.

Indexing Factor= $\frac{Inflation\ level\ of\ Current\ Year}{Inflation\ level\ of\ Purchase\ Year} = \frac{125}{110}$ = 1.14

Indexed Purchase Price = Indexing factor * Actual purchase price = Rs 114

Capital Gain with Indexation = Selling Price – Indexed Purchase Price
= Rs 160 – Rs 114 = Rs 46

Manisha will have to pay Capital Gain tax of 20% on Rs 46, which is Capital Gains after adjusting for inflation. Manisha will have to pay Rs 9.2 as Capital Gains.

Manisha nets Rs 50.8 as Capital Gains post Tax on her investment of Rs 100 in a Long Term Income Fund. Her five year CAGR on investment in Long Term Income Fund post Capital Gains Tax is 8.56%.