Shree Agrasen Mahavidyalaya
Department of Commerce
Semester-I
MDC
Introduction to Investment Management

MODULE-I

Meaningof Investment

Investment refers to the process of using money or capital to purchase assets with the expectationthattheywill generateincomeorappreciateinvalueovertime.Theprimarygoalof investment is to increase wealth by earning returns.

- **TypesofInvestments:**
  1. **Equity Shares (Stocks)**: Buying a share in a company, with the hope that the company'svaluewillincrease,givingyoureturnsthroughdividendsandcapital gains.
  2. **Bonds**:Aloanmadetoacompanyorgovernment inexchangeforperiodic interest payments and the return of the principal at maturity.
  3. **RealEstate**:Buyingpropertywiththeexpectationthatitwillincreaseinvalueor generate rental income.
  4. **MutualFunds**:Poolingmoneywithotherinvestorstoinvestinadiversified portfolio of assets (stocks, bonds, etc.).
  5. **Commodities**:Investinginphysicalgoodssuchasgold,oil,oragricultural products.
- **BasicObjective**:Toearnreturnsintheformofincome(suchasinterestordividends)or capital appreciation (increase in value over time).

MeaningofInvestmentPlanning

Investment Planningistheprocessofdevelopingastrategyto investmoneyinordertoachieve specific financial goals, such as retirement, buying a house, or funding education. It involves analyzing the individual's financial situation, risk tolerance, and time horizon to decide the best way to allocate resources in various investment options.

- **StepsinInvestmentPlanning:**
  1. **SettingFinancialGoals**:Identifyingwhatyouwanttoachieve,suchassaving for retirement, buying a car, or paying for higher education.
  2. **AssessingRiskTolerance**:Understandinghowmuchriskyouarewillingtotake based on your financial situation and comfort level.
  3. **CreatinganInvestmentStrategy**:Choosingamixofinvestments(stocks, bonds, etc.) based on your risk tolerance and time horizon.
  4. **AssetAllocation**:Diversifyinginvestmentsintodifferentassetclasses(stocks, bonds, real estate) to manage risk and maximize returns.

5. **Monitoring and Reviewing**: Continuously monitoring the performance of investmentsandmakingadjustmentsasneededtostayontrackwith yourgoals.

- **Purpose**: Investment planning helps individuals or organizations to make informed decisionsonhowtousetheirmoneywiselyandeffectivelytomeettheirfutureneedsand goals.

ImportanceofInvestmentPlanning

Investmentplanningiscrucialforachievinglong-termfinancialgoals,anditsimportancecannot be overstated. Here are the key reasons why investment planning is essential:

1. HelpsAchieveFinancialGoals

Investmentplanningallowsyoutosetclear,measurablefinancialgoals,suchasbuyingahouse, funding education, or saving for retirement. With a structured plan, you are more likely to stay on track and reach these goals.

2. MaximizesReturns

Properinvestmentplanninghelpsidentifythebestinvestmentopportunitiessuitedto yourrisk toleranceandfinancialgoals.Byallocatingresourceseffectively, youcanmaximizethereturn on your investments.

3. **RiskManagement**

Investment planning helps assess and manage risk. By understanding your risk tolerance (how muchriskyou'rewillingtotake),youcanchooseinvestmentsthatalignwith yourcomfortlevel and avoid financial stress during market volatility

4. **EnsuresProperAssetAllocation**

A well-planned investment strategy ensures that your moneyis spread across various asset classes(stocks,bonds,mutualfunds,etc.).Thisdiversificationhelpsprotectyoufromlarge losses in any one area and stabilizes your overall portfolio.

5. **EnhancesFinancialDiscipline**

Investmentplanningrequiresregularsavinganddisciplinedinvestmentbehavior.Itencouragesa systematic approach to saving and investing over time, which is crucial for building wealth.

6. AdaptstoChangingLifeCircumstances

Aslifecircumstanceschange—suchasmarriage,havingchildren,orretirement—investment planninghelpsyouadaptbyre-evaluatingyourfinancialgoalsandadjustingyourinvestment strategy accordingly.

7. Tax Efficiency

Investmentplanningcanhelpyouchoosetax-efficientinvestmentoptions,minimizingthetaxes you pay on your returns. This is important for maximizing the growth of your investments.

Financial Goal

A **financial goal** is a specific target or objective that an individual or organization aims to achievethroughcarefulfinancialplanningandmanagement.Financialgoalscanbeshort-term (e.g., buying a laptop), medium-term (e.g., saving for a car), or long-term (e.g., retirement savings). Setting clear financial goals is essential for directing and measuring the progress of one's financial decisions.

TypesofFinancial Goals:

1. **Short-TermGoals(Upto1year)**
   Thesegoalstypicallyinvolvesmalleramountsofmoneyandrequirelesstimetoachieve. Examples include:
   - Savingfora vacation.
   - Buildinganemergencyfund.
   - Payingoffcreditcarddebt.
2. **Medium-TermGoals(1to5years)**
   Thesegoalsrequiremoretimeandplanning.Examplesinclude:
   - Savingfora car.
   - Payingforhighereducationoracourse.
   - Savingforahomedown payment.
3. **Long-TermGoals(5yearsor more)**
   Thesegoalsaretypicallymoresignificantandtakealongertimetoachieve.Examples include:
   - Savingfor retirement.
   - Buyingahome.
   - Buildingasubstantialinvestmentportfolio.

StepstoSetFinancialGoals:

1. **IdentifytheGoal**:Clearlydefinewhatyouwanttoachieve(e.g.,buyingahouse,startinga business).
2. **QuantifytheGoal**:Determinetheamountofmoneyneededtoreachthegoal.
3. **SetaTimeFrame**:Specifywhenyouwanttoachievethegoal(short-term,medium-term,or long-term).
4. **CreateaPlan**:Developastrategytoachievethegoal,includinghowmuchmoneytosaveand where to invest.
5. **MonitorProgress**:Regularlyreviewandadjustyourstrategytoensureyou’reontrack.

ImportanceofFinancialGoals:

- **ProvidesDirection**:Financialgoalsgiveyouaclearpurposeforyoursavingsandinvestments.
- **Motivation**:Helpskeepyoumotivatedtoachievespecific milestones.
- **FocusesResources**:Helpsyouallocateyourresourceseffectively,prioritizingessentialgoals.
- **IncreasesFinancialDiscipline**:Encouragesdisciplinedsavingandinvestingtomeetyourtargets.

RiskAppetite

Risk appetite refers to the level of risk an individual or investor is willing to take in order to achieve their financial goals. It is a critical factor in making investment decisions. Risk appetite isinfluencedbyvariousfactors,suchaspersonalpreferences,financialsituation,age,andfuture needs.

FactorsAffectingRiskAppetite:

1. **Age**:Youngerinvestorsmayhaveahigherriskappetitebecausetheyhavemoretimeto recover from any potential losses. Older investors, especially those nearing retirement, may prefer safer, more stable investments.
2. **Income & Financial Situation**: Higher income or financial stability typically allows for ahigherriskappetitesincetheinvestorcanaffordtotakemoreriskswithoutendangering their financial security.
3. **InvestmentGoals**:Themoreaggressivethefinancialgoal(e.g.,achievinghighreturns in a short period), the higher the risk appetite might be.
4. **TimeHorizon**:Thelongerthetimehorizon,thegreatertheabilityto withstandshort- term fluctuations and losses. Longer-term investors can generally tolerate more risk.
5. **EmotionalTolerance**:Aninvestor's abilitytohandlestressorlossiscrucial.Someone with a high emotional tolerance for risk may take on more volatile investments like stocks, while someone who dislikes risk may prefer safer investments like bonds.
6. **MarketKnowledge**:Knowledgeoffinancialmarketsandinvestmentscaninfluencerisk appetite. Experienced investors may be more comfortable taking risks based on their understanding of market behavior.

Typesof Risk Appetite:

1. **ConservativeRiskAppetite**:
   - Investorspreferlow-riskinvestmentsthatofferstable,predictablereturns,evenifthe returns are lower.
   - Suitableforthosewithashortertimehorizonorthosewhocannotaffordtolose money.
   - Example:Bonds,fixeddeposits,savingsaccounts.
2. **ModerateRiskAppetite**:
   - Investorsarewillingtotakeonamoderatelevelofriskforpotentiallyhigherreturns.
   - Suitableforindividualswithabalancedapproachtoriskandreward.
   - Example:Amixofstocksandbonds,balancedmutualfunds.
3. **AggressiveRiskAppetite**:

- Investorsarewillingtotakehighrisks forpotentiallyhighreturns.
- Suitableforindividualswithalongtimehorizonandahighertoleranceformarket volatility.
- Example:Stocks,equitymutualfunds,venturecapitalinvestments.

HowtoAssessRiskAppetite:

1. **EvaluateFinancialSituation**:Reviewyourincome,assets,liabilities,andfinancialgoals.
2. **ConsiderTimeHorizon**:Howlongcanyoustayinvestedbeforeneedingaccesstothemoney?A longer horizon allows for more risk-taking.
3. **UnderstandEmotionalTolerance**:Askyourselfhowyouwouldreactifthevalueofyour investments dropped by 20% in a short period.
4. **SetRisk-RewardBalance**:Alignyourinvestmentswithyourfinancialgoalsandriskcapacity.For example, ifyouhavea long-term goallike retirement,youcanafford higher risksfor potentially higher returns.

ImportanceofRiskAppetite:

- **HelpsTailorInvestments**:Knowingyourriskappetiteallowsyoutochoosetheright investment products (stocks, bonds, real estate, etc.).
- **PreventsOverexposuretoRisk**:Byunderstandingyourlimits,youcanavoidrisky investments that may cause significant losses.
- **EnsuresPeaceofMind**:Knowingyourrisktoleranceensuresyoudon'tpanicduring market downturns and helps you stick to your investment plan.
- **AlignswithGoals**:Helpsyouselectinvestmentsthatfityourfinancialgoals,whether short-term or long-term.

TIMEVALUEOFMONEY(TVM)

ConceptsofTimeValueofMoney:

1. **PresentValue(PV)**:
   PresentValueisthecurrentvalueofafutureamountofmoney,discountedbacktothe present. It answers the question: "How much is a future sum of money worth today?"
2. **FutureValue(FV)**:
   FutureValueis thevalueofanamount ofmoneyataspecificpointinthefuture,givena certain rate of interest. It tells us how much an investment made today will be worth in the future.
3. **InterestRate(r)**:
   Theinterestrateisthepercentageatwhichmoneygrowsovertime.Itisusedtocalculate both present value and future value.
4. **TimePeriod(t)**:
   Thetimeperiodisthedurationforwhichthemoneyisinvestedorborrowed. Itis usually expressed in years, months, or days.

5. **Compounding**:
   Compoundingreferstotheprocesswhereinterestiscalculatedonboththeinitial principal and the accumulated interest from previous periods.

BasicFormulasofTimeValueofMoney:

FutureValue(FV)

TheformulaforFutureValueisusedtodeterminethevalueofaninvestmentatafuturedate, given the present value (PV), interest rate, and number of periods.

$FV=PV\times(1+\square)^{t}$

Where:

- FV=FutureValue
- PV=PresentValue
- r=InterestRate(expressedasadecimal)
- t=TimePeriod(numberof years)

Example:
If youinvest₹10,000todayatanannualinterestrateof5%for3 years,thefuturevalue will be:

- $FV=10,000x(1+0.05)^{3}$=₹11,576.25

PresentValue(PV)

ThePresentValueformulaisusedtodeterminethecurrentvalueofafuturesumofmoney, discounted to the present using a certain interest rate.

$$PV=\frac{FV}{(1+r)\text{^}t}$$

Where:

- PV=PresentValue
- FV=FutureValue
- r=InterestRate(expressedasadecimal)
- t=TimePeriod(numberof years)

Example:
If youexpecttoreceive₹15,000in5years,andtheinterestrateis6%,thepresentvaluewillbe:

$$PV = \frac{15000}{(1+0.06)^5} = 11,207.52$$

CompoundInterestFormula

Wheninterestiscompounded,theformulatocalculatethecompoundinterest is:

$$A = PX\left(1+\frac{r}{n}\right)^{nt}$$

Where:

- AAA=Amountafterinterest(FutureValue)
- PPP=Principal(InitialInvestment)
- rrr=Annualinterestrate(decimalform)
- nnn=Numberoftimestheinterestiscompoundedperyear
- ttt= Time inyears

Example:
If₹10,000isinvestedatanannualinterestrateof5%,compoundedquarterly,for3 years,the future value will be:

$$A = 10,000\times\left(1+\frac{0.05}{4}\right)^{4x3}$$

$$=11,576.25$$

ApplicationsofTimeValueof Money:

1. **InvestmentDecisions:**TVMhelpsindecidingwhethertoinvestinprojects orassets.By evaluating the future value and present value, investors can determine if an investment is worthwhile.
2. **LoanAmortization:**Whentakingaloan,TVMhelpstounderstandhowmuchwillbe paid back over time, taking into account the interest rate and the duration of the loan.
3. **ValuingAnnuities:**Annuitiesinvolveaseriesofpaymentsmadeovertime.TVMhelps in determining the present or future value of these periodic payments.
4. **RetirementPlanning:**Whenplanningforretirement,TVMisusedtocalculatehow much money needs to be saved today to ensure sufficient funds in the future.

ImportanceofTimeValueofMoney:

1. **Inflation Impact:** Over time, inflation decreases the purchasing power of money. Therefore,thevalueofmoneydecreasesastimepasses,makingpresentmoneymore valuable.
2. **InvestmentGrowth:**Thepowerofcompoundinginterestallowsinvestmentstogrow significantly over time. The earlier you invest, the more you benefit from compound growth.

3. **DecisionMaking:**TVMallowsbusinessesandindividualstomakeinformeddecisions about loans, savings, and investments by evaluating the time-based value of money.

Investmentavenues

Investment avenues refer to the various options or channels available for individuals and institutionstoinvesttheirmoneyinordertoearnreturnsovertime.Eachinvestmentavenuecomes with different risk andreturn profiles,andchoosing the rightone depends onaninvestor'sfinancial goals, risk appetite, and time horizon.

1. Equities(Stocks)

- **Definition**: Equities represent ownership in a company. When you buy shares of a company,youbecomeapart-ownerandhaveaclaimonthecompany'sassetsandprofits.
- **Types**:
  - **CommonShares**:Holderscanvoteatshareholdermeetingsandreceive dividends.
  - **PreferredShares**:Holdersdonothavevotingrightsbuthaveahigherclaimon earnings.
- **Risk&Return**:
  - **Highrisk**:Stockscanbevolatile,withthepotentialforhighreturnsorsignificant losses.
  - **Return**:Capitalgains(increaseinstockprice)anddividends.
- **Suitability**:Idealforlong-terminvestorswhocanhandlemarketfluctuations.

2. Bonds

- **Definition**: Bonds are debt securities issued by corporations, governments, or other entities.Whenyoubuyabond,youarelendingmoneyinexchangeforperiodicinterest payments and the return of principal at maturity.
- **Types**:
  - **GovernmentBonds**:Issuedbycentralgovernments,consideredlowrisk.
  - **CorporateBonds**:Issuedbycompanies,usuallyofferinghigherreturnsbutwith more risk.
  - **MunicipalBonds**:Issuedbystateorlocalgovernments.
- **Risk&Return**:
  - **Moderaterisk**:Corporatebondscarrymoreriskcomparedtogovernmentbonds, but they offer higher returns.
  - **Return**:Regularinterestpayments(coupons)andthereturnofprincipalat maturity.
- **Suitability**:Suitableforconservativeinvestorsseekingregularincomewithlowerrisk than stocks.

3. Mutual Funds

- **Definition**:Amutualfundisapoolofmoneycollectedfromvariousinvestorstoinvest in diversified portfolios of stocks, bonds, and other securities. A professional fund manager oversees the investment strategy.
- **Types**:
  - **EquityMutualFunds**:Investmainlyinstocks.
  - **DebtMutualFunds**:Investinbondsandotherfixed-incomesecurities.
  - **HybridFunds**:Investinamixofstocksandbonds.
- **Risk&Return**:
  - **Varies**:Riskandreturndependonthetypeofmutualfund.
  - **Return**:Dependsontheperformanceoftheunderlyingassetsinthefund's portfolio.
- **Suitability**:Idealforinvestorswhoseekdiversificationandprofessionalmanagementof their investments without the need to pick individual securities.

4. Real Estate

- **Definition**:Investinginpropertysuchasresidentialorcommercialrealestate.Investors can earn income through rent or from the appreciation in property value.
- **Types**:
  - **ResidentialProperty**:Houses,apartments,orcondos.
  - **CommercialProperty**:Officespaces,retailshops,warehouses.
  - **RealEstateInvestmentTrusts(REITs)**:Awaytoinvestinrealestatewithout owning physical property. REITs invest in income-producing real estate.
- **Risk&Return**:
  - **Moderaterisk**:Realestatecanbeaffectedbymarketconditions,interestrates, and property location.
  - **Return**:Rentalincomeandcapitalappreciation.
- **Suitability**:Suitableforinvestorslookingforlong-termappreciationandincome generation, with the ability to handle property maintenance and management.

5. Gold&PreciousMetals

- **Definition**:Investinginphysicalgold,silver,orotherpreciousmetals,orinfinancial instruments like gold ETFs (exchange-traded funds).
- **Types**:
  - **PhysicalGold**:Goldbars,coins,orjewelry.
  - **GoldETFs**:Financialproductsthattrackthepriceofgold.
  - **GoldMutualFunds**:Investingoldminingcompaniesorphysicalgold.
- **Risk&Return**:
  - **Moderaterisk**:Whilegoldisconsidereda"safe-haven"asset,itspricecan fluctuate.
  - **Return**:Capitalappreciationandprotectionagainstinflation.
- **Suitability**:Suitableforinvestorslookingforahedgeagainstinflationorthose diversifying their portfolio with tangible assets.

6. FixedDeposits(FDs)

- **Definition**:Afixeddepositisatypeofinvestmentwheremoneyisdepositedwithabank or financial institution for a fixed period at a predetermined interest rate.
- **Risk&Return**:
    - **Lowrisk**:FDsarelow-riskinvestmentsastheyarebackedbybanks.
    - **Return**:Fixedinterestispaidperiodically,andtheprincipalisreturnedat maturity.
- **Suitability**:Idealforconservativeinvestorsseekingsafetyandguaranteedreturns.

7. Exchange-TradedFunds(ETFs)

- **Definition**:ETFsareinvestmentfundsthatholdadiversifiedportfolioofassets(stocks, bonds, commodities) and trade on stock exchanges like individual stocks.
- **Types**:
    - **StockETFs**:Tracktheperformanceofaspecificindexorsector.
    - **BondETFs**:Trackbondindices.
    - **CommodityETFs**:Trackthepriceofcommoditieslikegoldoroil.
- **Risk&Return**:
    - **Varies**:RiskandreturndependontheassetswithintheETF.
    - **Return**:Dependsontheunderlyingassets.
- **Suitability**:Suitableforinvestorswhowantdiversification,lowcosts,andliquidity without the need to manage individual stocks.

8. Cryptocurrency

- **Definition**:Digitalorvirtualcurrenciesthatusecryptographyforsecurity.Bitcoin, Ethereum, and other altcoins are examples.
- **Risk&Return**:
    - **Highrisk**:Cryptocurrenciesarehighlyvolatileandspeculative.
    - **Return**:Potentialforhighreturns,butalsosignificantlosses.
- **Suitability**:Suitableforinvestorswithahigh-riskappetiteandalong-termperspective

9. Commodities

- **Definition**:Commoditiesarerawmaterialsorprimaryagriculturalproductsthatcanbe bought and sold, such as oil, gold, agricultural products, etc.
- **Risk&Return**:
    - **Moderatetohighrisk**:Commoditiescanbevolatile,influencedbysupply-demand dynamics and geopolitical factors.
    - **Return**:Basedonpricemovementsofthecommodity.
- **Suitability**:Suitableforinvestorslookingfordiversificationandexposuretoglobal markets.

10. SystematicInvestmentPlan(SIP)

- **Definition**:Amethodofinvestingafixedamount regularlyinmutualfunds.Ithelpsin building wealth over time through compounding.

- **Risk&Return**:
  - **Varies**:Dependsonthemutualfundchosen(equity,debt,hybrid,etc.).
  - **Return**:Potentialforlong-termcapitalappreciation.
- **Suitability**:Idealforinvestorswhowanttoinvestregularlyandbuildwealthovertime with relatively lower initial investment.

Interest Rates(Simple andCompound), Repo,Reserve Repo, andInflation

InterestRates

Interest rate referstothecostofborrowingmoneyorthereturnearnedonaninvestment. Itis expressed as a percentage of the principal amount per time period.

Therearetwomaintypesofinterestrates**:**

A.Simple Interest

- **Definition**: Simple interest is calculated only on the **principal amount** (the initial amountofmoney)fortheentireperiodoftheinvestmentorloan.Itdoesnotconsider interest on interest.
- **Formula**

$$\text{SimpleInterest(SI)} = \frac{P x R x T}{100}$$

Where:

- P=Principalamount(initialinvestmentorloan)
- R=Rateofinterestperannum
- T=Timeperiod(in years)

CompoundInterest

- **Definition**:Compoundinterestiscalculatedonthe**principalamount**aswellasthe **accumulated interest** from previous periods. It is interest on interest, meaning the interest earned in one period becomes part of the principal for the next period.
- **Formula**:

$$A = P x \left(1 + \frac{r}{n}\right)^{nt}$$

Where:

- A=Amountafterinterest(futurevalue)
- P=Principalamount
- r=Annualinterestrate(decimalform)
- n=Numberoftimestheinterestiscompoundedperyear
- t=Timeperiodinyears

RepoandReserveRepoRates

Repo Rate and **Reserve Repo Rate** are key tools used by central banks (such as the Reserve BankofIndia,RBI)tocontrolthemoneysupplyandmanageinflation.Theseratesinfluencethe costofborrowinginthe economyanddirectlyimpactinterestratesonloans,deposits,andother financial products.

RepoRate(RepurchaseRate)

- **Definition**: The **repo rate** is the rate at which the central bank lends short-term money (usuallyforovernightorshortperiods)tocommercialbanksinexchangeforgovernment securities. Commercial banks use these funds to meet their short-term liquidity requirements.
- **Purpose**:
  - **MonetaryPolicyTool**:Thereporateisusedbythecentralbank tocontrolinflationand money supply.
  - **Effect on Economy**:
    - **IncreaseinRepoRate**:Increasesborrowingcostsforcommercialbanks,which can lead to higher interest rates for loans to customers. It helps control inflation.
    - **DecreaseinRepoRate**:Encouragesborrowingbycommercialbanks,thus stimulating investment and economic growth.

ReserveRepoRate

- **Definition**: The **reserve repo rate** is the rate at which commercial banks can borrow moneyfromtheRBIbysellingtheirsecuritieswithanagreementto repurchasethemata laterdate. Itisatool usedbytheRBIto absorb excessliquidityfrom thebankingsystem.
- **Purpose**:
  - **LiquidityManagement**:Thereservereporatehelpsregulatetheflowofmoneyinthe banking system.
  - **Effect on Economy**:
    - **IncreaseinReserveRepoRate**:Reducestheliquidityinthesystembymakingit more expensive for banks to borrow from the RBI. It is used to manage excess money supply and control inflation.
    - **Decrease in Reserve Repo Rate**: Increases liquidity by making borrowing cheaperforbanks,whichcanleadtoincreasedlendingandeconomicactivity.

Inflation

Inflation is the rate at which the general level of prices for goods and services rises and subsequentlyerodesthepurchasingpowerofmoney. Itis acrucialconceptineconomicsand affects both consumers and businesses.

TypesofInflation:

1. **Demand-PullInflation**:Occurswhendemandforgoodsandservicesexceedstheir supply. It is typically caused by strong economic growth, increased government spending, or rising consumer demand.
2. **Cost-PushInflation**:Occurswhenthecostofproductionincreases,leadingtohigher prices for goods and services. This could be due to higher wages, rising raw material costs, or supply chain disruptions.
3. **Built-InInflation**:Causedbyexpectationsoffutureinflation.Ifbusinessesexpecthigher prices, they may increase prices in advance, creating a self-fulfilling cycle.

Effectsof Inflation:

1. **ReducedPurchasingPower**:Aspricesrise,thevalueofmoneydeclines,meaningyoucanbuy fewer goods and services with the same amount of money.
2. **HigherCostsofLiving**:Consumersfaceincreasedcostsfordailynecessities,suchasfood, housing, and transportation.
3. **ImpactonSavings**:Ifinflationishigherthantheinterestearnedonsavings,therealvalueof savings diminishes.
4. **Wage-PriceSpiral**:Asinflationincreases,workersdemandhigherwages,whichcanfurtherpush up prices, continuing the cycle of inflation.

MeasuringInflation:

- **ConsumerPriceIndex(CPI)**:TheCPImeasures theaveragechangeinpricespaidbyurban consumers for a market basket of goods and services.
- **WholesalePriceIndex(WPI)**:TheWPImeasuresthepricechangesofgoodsatthewholesale level, before they reach the consumer.

InflationandInterestRates:

- **Impact on Interest Rates**: Central banks often raise interest rates to combat high inflation. Wheninflationishigh,thecentralbankmayincreasetherepo rate,leadingtohigherinterest rates on loans and deposits.
- **Real InterestRate**:Therealinterestrateaccountsforinflationandiscalculatedas: Real

  Interest Rate=Nominal Interest Rate−Inflation Rate

  Ifinflationishigherthanthenominalinterestrate,therealreturnonsavingsorinvestments could be negative.