

# Investment Management

14MBAFM303

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<b>Subject Code</b>	<b>: 14MBA FM303</b>
<b>Subject</b>	<b>: Investment Management</b>
<b>IA Marks</b>	<b>: 50</b>
<b>No. of Lecture Hours / Week</b>	<b>: 04</b>
<b>Exam Hours</b>	<b>: 03</b>
<b>Total Number of Lecture Hours</b>	<b>: 56 Exam</b>
<b>Marks</b>	<b>: 100</b>
<b>Practical Component</b>	<b>: 01 Hour / Week</b>

**Objectives:**

- To develop a thorough understanding of process of investments.
- To familiarize the students with the stock markets in India and abroad.
- To provide conceptual insights into the valuation of securities.
- To provide insight about the relationship of the risk and return and how risk should be measured to bring about a return according to the expectations of the investors.
- To familiarise the students with the fundamental and technical analysis of the diverse investment avenues

**Module 1: (Theory) (6 Hours)**

Investment: Attributes, Economic vs. Financial Investment, Investment and speculation, Features of a good investment, Investment Process.

Financial Instruments: Money Market Instruments, Capital Market Instruments, Derivatives.

**Module 2: (Theory) (6 Hours)**

Securities Market: Primary Market - Factors to be considered to enter the primary market, Modes of raising funds, Secondary Market- Major Players in the secondary market, Functioning of Stock Exchanges, Trading and Settlement Procedures, Leading Stock Exchanges in India.

Stock Market Indicators- Types of stock market Indices, Indices of Indian Stock Exchanges.

**Module 3: (Theory & Problems) (8 Hours)**

Risk and Return Concepts: Concept of Risk, Types of Risk- Systematic risk, Unsystematic risk, Calculation of Risk and returns.

Portfolio Risk and Return: Expected returns of a portfolio, Calculation of Portfolio Risk and Return, Portfolio with 2 assets, Portfolio with more than 2 assets.

**Module 4: (Theory & Problems) (8 Hours)**

Valuation of securities: Bond- Bond features, Types of Bonds, Determinants of interest rates, Bond Management Strategies, Bond Valuation, Bond Duration.

PREFERENCE Shares- Concept, Features, Yields.

Equity shares- Concept, Valuation, Dividend Valuation models.

**Module 5: (10 Hours).**

Macro-Economic and Industry Analysis: Fundamental analysis-EIC Frame Work, Global

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Economy, Domestic Economy, Business Cycles, Industry Analysis. Company Analysis-Financial Statement Analysis, Ratio Analysis.

Technical Analysis – Concept, Theories- Dow Theory, Eliot wave theory. Charts-Types, Trend and Trend Reversal Patterns. Mathematical Indicators – Moving averages, ROC, RSI, and Market Indicators. (Problems in company analysis & Technical analysis)

Market Efficiency and Behavioural Finance: Random walk and Efficient Market Hypothesis, Forms of Market Efficiency, Empirical test for different forms of market efficiency.

Behavioural Finance – Interpretation, Biases and critiques. (Theory only)

### **Module 6: (Theory & Problems) (10 Hours)**

Modern Portfolio Theory: Markowitz Model -Portfolio Selection, Opportunity set, Efficient Frontier. Beta Measurement and Sharpe Single Index Model

Capital Asset pricing model: Basic Assumptions, CAPM Equation, Security Market line, Extension of Capital Asset pricing Model - Capital market line, SML VS CML.

Arbitrage Pricing Theory: Arbitrage, Equation, Assumption, Equilibrium, APT and CAPM.

### **Module 7: (Theory & Problems) (8 Hours)**

Portfolio Management: Diversification- Investment objectives, Risk Assessment, Selection of asset mix, Risk, Return and benefits from diversification.

Mutual Funds:, Mutual Fund types, Performance of Mutual Funds-NAV. Performance evaluation of Managed Portfolios- Treynor, Sharpe and Jensen Measures

Portfolio Management Strategies: Active and Passive Portfolio Management strategy.

Portfolio Revision: – Formula Plans-Rupee Cost Averaging

**(QUESTION PAPER- 50% Problems, 50% Theory)**

Practical Components:

- A Student is expected to trade in stocks. It involves an investment of a virtual amount of Rs.10 lakhs in a diversified portfolio and manage the portfolio. At the end of the Semester the Net worth is to be assessed and marks may be given (to beat an index).
- Students should study the functioning of stock exchange.
- Students should study of the stock market pages from business press and present their observations • Students can do
- Macro Economic Analysis for the Indian economy.
- Industry Analysis for Specific Sectors.
- Company Analysis for select companies.
- Practice Technical Analysis
- Students can study the mutual funds schemes available in the market and do their Performance evaluation.

RECOMMENDED BOOKS:

- Investment Analysis and Portfolio management – Prasanna Chandra, 3/e, TMH, 2010.
- Investments – ZviBodie, Kane, Marcus & Mohanty, 8/e, TMH, 2010.

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- Investment Management – Bhalla V. K, 17/e, S.Chand, 2011.
- Security Analysis & Portfolio Management – Fisher and Jordan, 6/e, Pearson, 2011.
- Security Analysis & Portfolio Management – Punithavathy Pandian, 2/e, Vikas, 2005.
- Investment Management – Preethi Singh, 17/e, Himalaya Publishing House 2010.
- Security Analysis & Portfolio Management- Kevin S, PHI, 2011.
- Investments: Principles and Concepts – Charles P. Jones, 11/e, Wiley, 2010.
- Security Analysis & Portfolio Management – Falguni H. Pandya, Jaico Publishing, 2013.

### REFERENCE BOOKS:

- Fundamentals of Investment – Alexander, Sharpe, Bailey, 3/e, PHI, 2001.
  - Security Analysis & Portfolio Management – Nagarajan K & Jayabal G , 1st Edition, New Age international, 2011.
  - Investment – An A to Z Guide, Philip Ryland, 1st Edition, Viva Publishers, 2010.
  - Guide to Investment Strategy-Peter Stanyer, 2nd Edition, Viva Publishers, 2010.
  - Security Analysis & Portfolio Management – Sayesh N. Bhat, 1st Edition, Biztantra, 2011.
  - Security Analysis & Portfolio Management– Dhanesh Khatri, 1st Edition, Macmillan, 2010.
  - Security Analysis & Portfolio Management – Avadhani V. A, HPH.
  - Investment Analysis & Portfolio Management– Reilly, 8/e, Cengage Learning.
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**Module I****Investment**

**Attributes, Economic vs. Financial Investment, Investment and speculation, Features of a good investment, Investment Process.**

**Financial Instruments: Money Market Instruments, Capital Market Instruments, Derivatives.**

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**Investment Attributes**

Every investor has certain specific objectives to achieve through his long term/short term investment. Such objectives may be monetary/financial or personal in character. The objectives include safety and security of the funds invested (principal amount), profitability (through interest, dividend and capital appreciation) and liquidity (convertibility into cash as and when required). These objectives are universal in character as every investor will like to have a fair balance of these three financial objectives. An investor will not like to take undue risk about his principal amount even when the interest rate offered is extremely attractive. These objectives or factors are known as investment attributes.

There are personal objectives which are given due consideration by every investor while selecting suitable avenues for investment. Personal objectives may be like provision for old age and sickness, provision for house construction, provision for education and marriage of children and finally provision for dependents including wife, parents or physically handicapped member of the family. Investment avenue selected should be suitable for achieving both the objectives (financial and personal) decided. Merits and demerits of various investment avenues need to be considered in the context of such investment objectives.

**(1) Period of Investment (2) Risk in Investment**

To enable the evaluation and a reasonable comparison of various investment avenues, the investor should study the following attributes:

1. Rate of return
2. Risk
3. Marketability
4. Taxes
5. Convenience
6. Safety
7. Liquidity
8. Duration

Each of these attributes of investment avenues is briefly described and explained below.

**❖ Rate of return:**

The rate of return on any investment comprises of 2 parts, namely the annual income and the capital gain or loss. To simplify it further look below:

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Rate of return =  $\text{Annual income} + (\text{Ending price} - \text{Beginning price}) / \text{Beginning price}$

The rate of return on various investment avenues would vary widely.

### 2. Risk:

The risk of an investment refers to the variability of the rate of return. To explain further, it is the deviation of the outcome of an investment from its expected value. A further study can be done with the help of variance, standard deviation and beta. Risk is another factor which needs careful consideration while selecting the avenue for investment. Risk is a normal feature of every investment as an investor has to part with his money immediately and has to collect it back with some benefit in due course. The risk may be more in some investment avenues and less in others.

The risk in the investment may be related to non-payment of principal amount or interest thereon. In addition, liquidity risk, inflation risk, market risk, business risk, political risk, etc. are some more risks connected with the investment made. The risk in investment depends on various factors. For example, the risk is more, if the period of maturity is longer. Similarly, the risk is less in the case of debt instrument (e.g., debenture) and more in the case of ownership instrument (e.g., equity share). In addition, the risk is less if the borrower is creditworthy or the agency issuing security is creditworthy. It is always desirable to select an investment avenue where the risk involved is minimum/comparatively less. Thus, the objective of an investor should be to minimize the risk and to maximize the return out of the investment made.

**3. Marketability:** It is desirable that an investment instrument be marketable, the higher the marketability the better it is for the investor. An investment instrument is considered to be highly marketable when:

- It can be transacted quickly.
- The transaction cost (including brokerage and other charges) is low.
- The price change between 2 transactions is negligible.
- Shares of large, well-established companies in the equity market are highly marketable. While shares of small and unknown companies have low marketability.

To gauge the marketability of other financial instruments like provident fund (which in itself is non-marketable). Then we would consider other factors like, can we make a substantial withdrawal without much penalty, or can we take a loan against the accumulated balance at an interest rate not much higher than our earning rate of interest on the provident fund account.

**4. Taxes:** Some of our investments would provide us with tax benefits while other would not. This would also be kept in mind when choosing the investment avenue. Tax benefits are mainly of 3 types:

- Initial tax benefits. This is the tax gain at the time of making the investment, like life insurance.
  - Continuing tax benefit. Is the tax benefit gained on the periodic return from the investment, such as dividends.
  - Terminal tax benefit. This is the tax relief the investor gains when he liquidates the
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investment. For example, a withdrawal from a provident fund account is not taxable.

### 5. Convenience:

Here we are talking about the ease with which an investment can be made and managed. The degree of convenience would vary from one investment instrument to the other.

### 6.Safety

Although the degree of risk varies across investment types, all investments bear risk. Therefore, it is important to determine how much risk is involved in an investment. The average performance of an investment normally provides a good indicator. However, past performance is merely a guide to future performance - not a guarantee. Some investments, like variable annuities, may have a safety net while others expose the investor to comprehensive losses in the event of failure. Investors should also consider whether they could manage the safety risk associated with an investment - financially and psychologically.

### 7.Liquidity

A liquid investment is one you can easily convert to cash or cash equivalents. In other words, a liquid investment is tradable- there are ample buyers and sellers on the market for a liquid investment. An example of a liquid investment is currency trading. When you trade currencies, there is always someone willing to buy when you want to sell and vice versa. With other investments, like stock options, you may hold an illiquid asset at various points in your investment horizon.

### 8. Duration

Investments typically have a longer horizon than cash and income options. The duration of an investment-, particularly how long it may take to generate a healthy rate of return- is a vital consideration for an investor. The investment horizon should match the period that your funds must be invested for or how long it would take to generate a desired return.

A good investment has a good risk-return trade-off and provides a good return-duration trade-off as well. Given that there are several risks that an investment faces, it is important to use these attributes to assess the suitability of a financial instrument or option. A good investment is one that suits your investment objectives. To do that, it must have a combination of investment attributes that satisfy you.

### Economic v/s Financial Investment

#### **Financial Investment**

A financial investment allocates resources into a financial asset, such as a bank account, stocks, mutual funds, foreign currency and derivatives. Ambika Prasad Dash, author of "Security Analysis and Portfolio Management" explains financial investments are purchases of financial claims. This type of investment may or may not yield a return. However, businesses gain from placing money into financial investments because many safe assets, such as an interest-bearing savings account, may yield enough of a return to protect it from inflation. Essentially, some financial investments offer protection against rising prices.

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### **Economic Investment**

An economic investment puts resources in something that may yield benefits in excess of its initial cost. Though these resources still include money, investments can also be made in time, assistance and mentoring. Likewise, assets are not limited to financial instruments. Mike Stabler, author of "The Economics of Tourism" explains economic growth arises from a broader definition of an investment, such as an investment in knowledge. An economic investment may include buying or upgrading machinery and equipment or adding to a labor force. For example, an economic investment could be a tuition reimbursement program for employees. The expectation is the company's expense will lead to an employee who will use the education in ways to benefit the company. Furthermore, offering this benefit may attract a wider, more-skilled pool of applicants from which the company can choose. States also engage in economic investments. Art Rolnick of the Minneapolis Federal Reserve explains that every dollar invested in early education yields \$8 worth of benefits in economic growth.

### **Similarities**

In both cases, a company undergoes a cost-benefit analysis to deem the potential return of the investment. Financial and economic investments also carry risk. Just as a stock may tumble and cost the business money, investing in training programs could cost the business money if the employee resigns one month later. Thus, both types of investment require risk assessment. For financial investments, risk assessment includes analyzing the previous performance of stock and evaluating its ratios. Studying the risk of an economic investment includes reviewing resumes and performing reference checks, following up on the credibility of vendors and reviewing customer reviews on machinery and other costly purchases.

### **Considerations**

Measuring the return of an economic investment is not as straightforward as a financial investment. While a financial investment provides concrete data regarding the asset's past performance and its day-to-day growth or decline, assessing economic investments is not as direct because the return of an economic investment is not always apparent. Using the college tuition reimbursement example, if an employee performs her work faster as a result of her accounting class, managers typically attribute a more direct reason such as becoming familiar with the job or enforcing the new rule of not listening to music while working.

### **Investment and speculation**

#### **Definition of 'Investment'**

An asset or item that is purchased with the hope that it will generate income or appreciate in the future. In an economic sense, an investment is the purchase of goods that are not consumed today but are used in the future to create wealth. In finance, an investment is a monetary asset purchased with the idea that the asset will provide income in the future or appreciate and be sold at a higher price.

'Investment' in Economic and Financial sense.

The building of a factory used to produce goods and the investment one makes by going to college or university are both examples of investments in the economic sense.

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In the financial sense investments include the purchase of bonds, stocks or real estate property.

Be sure not to get 'making an investment' and 'speculating' confused. Investing usually involves the creation of wealth whereas speculating is often a zero-sum game; wealth is not created. Although speculators are often making informed decisions, speculation cannot usually be categorized as traditional investing.

- Investment involves making a sacrifice of in the present with the hope of deriving future benefits.
- Postponed consumption

The two important features are :

- Current Sacrifice.
- Future Benefits.
- It also involves putting money into an asset which is not necessarily marketable in the short run in order to enjoy the series of returns the investment is expected to yield.
- People who make fortunes in stock market and they are called investors.
- Decision making is a well thought process.
- Key determinant of investment process:
  - ❖ Risk
  - ❖ Expected Return

### Speculation

Speculation is the practice of engaging in risky financial transactions in an attempt to profit from short or medium term fluctuations in the market value of a tradable good such as a financial instrument, rather than attempting to profit from the underlying financial attributes embodied in the instrument such as capital gains, interest, or dividends. Many speculators pay little attention to the fundamental value of a security and instead focus purely on price movements. Speculation can in principle involve any tradable good or financial instrument. Speculators are particularly common in the markets for stocks, bonds, commodity futures, currencies, fine art, collectibles, real estate, and derivatives.

Speculators play one of four primary roles in financial markets, along with hedgers who engage in transactions to offset some other pre-existing risk, arbitrageurs who seek to profit from situations where fungible instruments trade at different prices in different market segments, and investors who seek profit through long-term ownership of an instrument's underlying attributes. The role of speculators is to absorb excess risk that other participants do not want, and to provide liquidity in the marketplace by buying or selling when no participants from the other categories are available. Successful speculation entails collecting an adequate level of monetary compensation in return for providing immediate liquidity and assuming additional risk so that, over time, the inevitable losses are offset by larger profits.

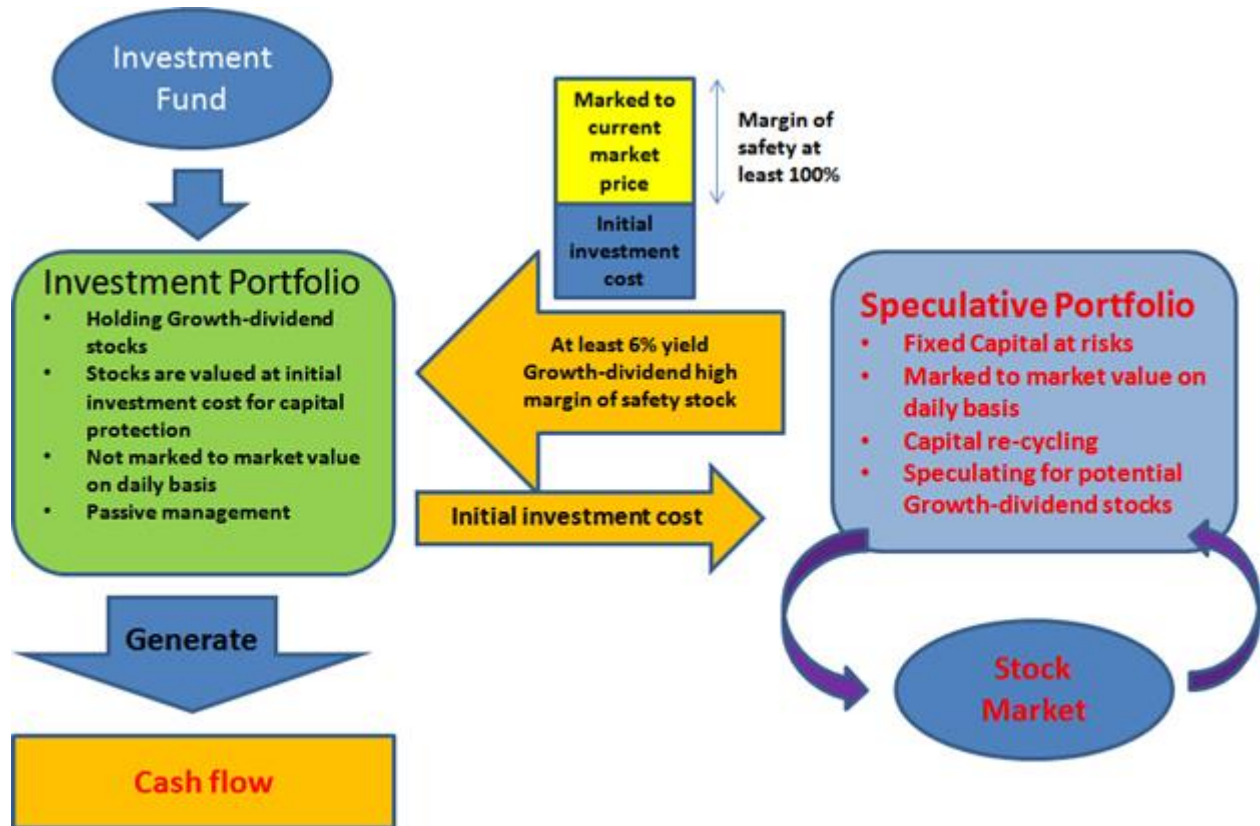
- ❖ Speculation is a financial action that does not promise safety of the initial investment along with the return on the principal sum.
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- ❖ Its is usually short run phenomenon.
- ❖ Speculator the person tend to buy the assets with the expectation that a profit cane earned from subsequent price change and sale.

### PROCESS OF INVESTMENT AND SPECULATION



### INVESTMENT V/S SPECULATION

Basis	Investment	Speculation
1. Basis of acquisition	Usually by outright purchase	Often on Margin

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2. Marketable Asset	Not necessary	Necessary
3. Quantity of risk	Small	Large

## Investment Vs Speculation

Basis	Investment	Speculation
4. Insider trading analysis	Not possible	Based on insider trading transaction happen
5. Stability of Income	Very stable	Uncertain and erratic
6. Sources of income	Earning of enterprises	Change in market price
7. Length of commitment	Long run	For a short time period

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**i. Trading currencies: Investment or speculation?**

In the case of the Forex market, currency trading is almost always speculation. I often like to think of the Forex market as the world's largest poker game. Occasionally large corporations and financial institutions buy currencies to hedge and protect themselves, or because they need a large amount of foreign currency to pay a foreign bill or make a foreign purchase, but as currency trading goes, it's almost always just pure speculation. Almost no FX trader buys a

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currency to collect interest payments and such like. To be sure, many traders do engage in the carry trade but such trades are usually highly leveraged and the trader is therefore first and foremost betting that the currency they have bought won't fall in value against the currency they used to buy it. FX traders are speculators and speculation is essentially gambling, albeit a form of gambling that involves calculated risk and educated guesses rather than sticking the lot on red number 7.

### **ii. Buying shares: Investment or speculation?**

Shares are one of those assets classes that are bought both for speculative and investment purposes, although there are no doubt a lot of small equity traders who confuse their speculative bets for real investments. Whether one is investing or speculating when they buy shares really depends upon why they are buying them. If you buy shares because you believe that the companies future earnings per share justifies the price you are paying for the shares then you're probably an investor. If however, you are buying shares in the belief that the price will soon rise and you hope to sell them for more than you paid for them in the near future then you're essentially speculating; you're really just hoping that someone will pay you more tomorrow than you paid today. Investors who buy shares will therefore care a lot about the fundamentals: things like the company's earnings, the net cash position on the company balance sheet and the value of the company's tangible assets minus its debts and liabilities etc... Speculators on the other hand will be primarily concerned with whether or not the price of a share is rising or whether it's likely to jump in the near future.

### **iii. Trading commodities: Investment or speculation?**

Like Forex traders, commodity traders are almost always just speculators. In fact, the commodities futures market was originally setup so that farmers and other commodity producers could guarantee the price they would receive for their goods in the future by shifting the risk onto speculators. Commodities aren't investments as they generate no revenue, traders can't buy commodities for their yields or their intrinsic value as there is none. Commodities are therefore usually just purchased for either their usefulness or for speculative purposes.

### **iv. Buying property: Investment or speculation?**

Like shares, property is one of those classes of assets that are bought by both investors and speculators alike. And again, whether one is an investor or a speculator will depend upon *why* they buy the property. If someone buys a property because they believe that the returns the property can generate in the form of rents justifies the price tag then they are an investor and even if the property falls in value it shouldn't matter too much to them as the property was bought for its rental yield, not its expected future resale value. Property speculators on the other hand are more concerned with what they believe their properties will be worth in the future as they are essentially gambling that whatever they pay for it today, someone else will pay them more for it in the future.

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### **Features of a good investment**

#### **a. Objective fulfillment**

An investment should fulfil the objective of the savers. Every individual has a definite objective in making an investment. When the investment objective is contrasted with the uncertainty involved with investments, the fulfilment of the objectives through the chosen investment avenue could become complex.

#### **b. Safety**

The first and foremost concern of any ordinary investor is that his investment should be safe. That is he should get back the principal at the end of the maturity period of the investment. There is no absolute safety in any investment, except probably with investment in government securities or such instruments where the repayment of interest and principal is guaranteed by the government.

#### **c. Return**

The return from any investment is expectedly consistent with the extent of risk assumed by the investor. Risk and return go together. Higher the risk, higher the chances of getting higher return. An investment in a low risk - high safety investment such as investment in government securities will obviously get the investor only low returns.

#### **d. Liquidity**

Given a choice, investors would prefer a liquid investment than a higher return investment. Because the investment climate and market conditions may change or investor may be confronted by an urgent unforeseen commitment for which he might need funds, and if he can dispose of his investment without suffering unduly in terms of loss of returns, he would prefer the liquid investment.

#### **e. Hedge against inflation**

The purchasing power of money deteriorates heavily in a country which is not efficient or not well endowed, in relation to another country. Investors who save for the long term, look for hedge against inflation so that their investments are not unduly eroded; rather they look for a capital gain which neutralises the erosion in purchasing power and still gives a return.

#### **f. Concealability**

If not from the taxman, investors would like to keep their investments rather confidential from their own kith and kin so that the investments made for their old age/ uncertain future does not become a hunting ground for their own lives. Safeguarding of financial instruments representing the investments may be easier than investment made in real estate. Moreover, the real estate may be prone to encroachment and other such hazards.

#### **h. Tax shield**

Investment decisions are highly influenced by the tax system in the country. Investors look for front-end tax incentives while making an investment and also rear-end tax reliefs while reaping the benefit of their investments. As against tax incentives and reliefs, if investors were to pay taxes on the income earned from investments, they look for higher return in such investments so that their after tax income is comparable to the pre-tax equivalent level with some other income which is free of tax, but is more risky.

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## Investment Process

The process of investment includes five stages:

1. **Investment Policy:** The policy is formulated on the basis of investible funds, objectives and knowledge about investment sources.
2. **Security Analyses:** Economic, industry and company analyses are carried out for the purchase of securities.
3. **Valuation:** Intrinsic value of the share is measured through book value of the share and P/E ratio.
4. **Portfolio Construction:** Portfolio is diversified to maximise return and minimise risk.
5. **Portfolio Evaluation:** The performance of the portfolio is appraised and revised.

## Financial Instruments

### **Definition of 'Financial Instrument'**

A real or virtual document representing a legal agreement involving some sort of monetary value. In today's financial marketplace, financial instruments can be classified generally as equity based, representing ownership of the asset, or debt based, representing a loan made by an investor to the owner of the asset. Foreign exchange instruments comprise a third, unique type of instrument. Different subcategories of each instrument type exist, such as preferred share equity and common share equity, for example.

Financial instruments can be thought of as easily tradeable packages of capital, each having their own unique characteristics and structure. The wide array of financial instruments in today's marketplace allows for the efficient flow of capital amongst the world's investors.

A **financial instrument** is a tradeable asset of any kind; either cash, evidence of an ownership interest in an entity, or a contractual right to receive or deliver cash or another financial instrument.

According to IAS 32 and 39, it is defined as "any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity

Financial instruments can be categorized by form depending on whether they are **cash instruments** or **derivative instruments**:

- **Cash instruments** are financial instruments whose value is determined directly by the markets. They can be divided into securities, which are readily transferable, and other *cash* instruments such as loans and deposits, where both borrower and lender have to agree on a transfer.
- **Derivative instruments** are financial instruments which derive their value from the value and characteristics of one or more underlying entities such as an asset, index, or interest rate. They can be divided into exchange-traded derivatives and over-the-counter (OTC) derivatives.

Alternatively, financial instruments can be categorized by "asset class" depending on whether they are **equity** based (reflecting ownership of the issuing entity) or **debt** based (reflecting a loan the investor has made to the issuing entity). If it is debt, it can be further categorised into **short term** (less than one year) or **long term**.

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Foreign Exchange instruments and transactions are neither debt nor equity based and belong in their own category.

**Money Market** is the part of financial market where instruments with high liquidity and very short-term maturities are traded. It's the place where large financial institutions, dealers and government participate and meet out their short-term cash needs. They usually borrow and lend money with the help of instruments or securities to generate liquidity. Due to highly liquid nature of securities and their short-term maturities, money market is treated as safe place. Money market means market where money or its equivalent can be traded.

Money is synonym of liquidity. Money market consists of financial institutions and dealers in money or credit who wish to generate liquidity. It is better known as a place where large institutions and government manage their short term cash needs. For generation of liquidity, short term borrowing and lending is done by these financial institutions and dealers. Money Market is part of financial market where instruments with high liquidity and very short term maturities are traded. Due to highly liquid nature of securities and their short term maturities, money market is treated as a safe place. Hence, money market is a market where short term obligations such as treasury bills, commercial papers and banker's acceptances are bought and sold.

### **Benefits and functions of Money Market:**

Money markets exist to facilitate efficient transfer of short-term funds between holders and borrowers of cash assets. For the lender/investor, it provides a good return on their funds. For the borrower, it enables rapid and relatively inexpensive acquisition of cash to cover short-term liabilities. One of the primary functions of money market is to provide focal point for RBI's intervention for influencing liquidity and general levels of interest rates in the economy. RBI being the main constituent in the money market aims at ensuring that liquidity and short term interest rates are consistent with the monetary policy objectives.

### **Money Market & Capital Market:**

Money Market is a place for short term lending and borrowing, typically within a year. It deals in short term debt financing and investments. On the other hand, Capital Market refers to stock market, which refers to trading in shares and bonds of companies on recognized stock exchanges. Individual players cannot invest in money market as the value of investments is large, on the other hand, in capital market, anybody can make investments through a broker. Stock Market is associated with high risk and high return as against money market which is more secure. Further, in case of money market, deals are transacted on phone or through electronic systems as against capital market where trading is through recognized stock exchanges.

### **Money Market Futures and Options:**

Active trading in money market futures and options occurs on number of commodity exchanges. They function in the similar manner like any other futures and options

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### **Role of Reserve Bank of India:**

The Reserve Bank of India (RBI) plays a key role of regulator and controller of money market. The intervention of RBI is varied – curbing crisis situations by reducing key policy rates or curbing inflationary situations by rising key policy rates such as Repo, Reverse Repo, CRR etc.

### **Money Market Instruments:**

Money Market Instruments provide the tools by which one can operate in the money market. Money market instrument meets short term requirements of the borrowers and provides liquidity to the lenders. The most common money market instruments are Treasury Bills, Certificate of Deposits, Commercial Papers, Repurchase Agreements and Banker's Acceptance.

#### **❖ Treasury Bills (T-Bills):**

Treasury Bills are one of the safest money market instruments as they are issued by Central Government. They are zero-risk instruments, and hence returns are not that attractive. T-Bills are circulated by both primary as well as the secondary markets. They come with the maturities of 3-month, 6-month and 1-year.

The Central Government issues T-Bills at a price less than their face value and the difference between the buy price and the maturity value is the interest earned by the buyer of the instrument. The buy value of the T-Bill is determined by the bidding process through auctions.

At present, the Government of India issues three types of treasury bills through auctions, namely, 91-day, 182-day and 364-day.

#### **❖ Certificate of Deposits (CDs):**

Certificate of Deposit is like a promissory note issued by a bank in form of a Certificate entitling the bearer to receive interest. It is similar to bank term deposit account. The certificate bears the maturity date, fixed rate of interest and the value. These certificates are available in the tenure of 3 months to 5 years. The returns on certificate of deposits are higher than T-Bills because they carry higher level of risk.

#### **❖ Commercial Papers (CPs):**

Commercial Paper is the short term unsecured promissory note issued by corporates and financial institutions at a discounted value on face value. They come with fixed maturity period ranging from 1 day to 270 days. These are issued for the purpose of financing of accounts receivables, inventories and meeting short term liabilities.

The return on commercial papers is higher as compared to T-Bills so as the risk as they are less secure in comparison to these bills. It is easy to find buyers for the firms with high credit ratings. These securities are actively traded in secondary market.

#### **❖ Repurchase Agreements (Repo):**

Repurchase Agreements which are also called as Repo or Reverse Repo are short term loans that buyers and sellers agree upon for selling and repurchasing. Repo or Reverse Repo

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transactions can be done only between the parties approved by RBI and allowed only between RBI-approved securities such as state and central government securities, T-Bills, PSU bonds and corporate bonds. They are usually used for overnight borrowing.

Repurchase agreements are sold by sellers with a promise of purchasing them back at a given price and on a given date in future. On the flip side, the buyer will also purchase the securities and other instruments with a promise of selling them back to the seller.

### ❖ **Banker's Acceptance:**

Banker's Acceptance is like a short term investment plan created by non-financial firm, backed by a guarantee from the bank. It's like a bill of exchange stating a buyer's promise to pay to the seller a certain specified amount at a certain date. And, the bank guarantees that the buyer will pay the seller at a future date. Firm with strong credit rating can draw such bill. These securities come with the maturities between 30 and 180 days and the most common term for these instruments is 90 days. Companies use these negotiable time drafts to finance imports, exports and other trade.

### ❖ **Federal Agency Notes**

Some agencies of the federal government issue both short-term and long-term obligations, including the loan agencies Fannie Mae and Sallie Mae. These obligations are not generally backed by the government, so they offer a slightly higher yield than T-bills, but the risk of default is still very small. Agency securities are actively traded, but are not quite as marketable as T-bills. Corporations are major purchasers of this type of money market instrument.

### ❖ **Short-Term Tax Exempts**

These instruments are short-term notes issued by state and municipal governments. Although they carry somewhat more risk than T-bills and tend to be less negotiable, they feature the added benefit that the interest is not subject to federal income tax. For this reason, corporations find that the lower yield is worthwhile on this type of short-term investment.

### ❖ **Repurchase Agreements/ REPOs**

Repurchase agreements—also known as repos or buybacks—are Treasury securities that are purchased from a dealer with the agreement that they will be sold back at a future date for a higher price. These agreements are the most liquid of all money market investments, ranging from 24 hours to several months. In fact, they are very similar to bank deposit accounts, and many corporations arrange for their banks to transfer excess cash to such funds automatically.

## **MONEY MARKET AT CALL AND SHORT NOTICE**

Next in liquidity after cash, money at call is a loan that is repayable on demand, and money at short notice is repayable within 14 days of serving a notice. The participants are banks & all other Indian Financial Institutions as permitted by RBI.

The market is over the telephone market, non bank participants act as lender only. Banks borrow for a variety of reasons to maintain their CRR, to meet their heavy payments, to adjust their maturity mismatch etc.

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### **MONEY MARKET MUTUAL FUNDS(MMMFs)**

A money market fund is a mutual fund that invests solely in money market instruments. Money market instruments are forms of debt that mature in less than one year and are very liquid.

Treasury bills make up the bulk of the money market instruments. Securities in the money market are relatively risk-free. Money market funds are generally the safest and most secure of mutual fund investments. The goal of a money-market fund is to preserve principal while yielding a modest return by investing in safe and stable instruments issued by governments, banks and corporations etc.

### **GOVERNMENT SECURITIES(G- Secs)**

Government Securities are securities issued by the Government for raising a public loan or as notified in the official Gazette. G-secs are sovereign securities mostly interest bearing dated securities which are issued by RBI on behalf of Govt. of India(GOI). GOI uses these borrowed funds to meet its fiscal deficit, while temporary cash mismatches are met through treasury bills of 91 days.

G-secs consist of Government Promissory Notes, Bearer Bonds, Stocks or Bonds, Treasury Bills or Dated Government Securities. Government bonds are theoretically risk free bonds, because governments can, up to a point, raise taxes, reduce spending, and take various measures to redeem the bond at maturity.

### **Features of Government Securities**

- Usually issued and redeemed at face value
- No default risk as the securities carry sovereign guarantee.
- Ample liquidity as the investor can sell the security in the secondary market
- Interest payment on a half yearly basis on face value
- No tax deducted at source
- Can be held in D-mat form
- Rate of interest and tenor of the security is fixed at the time of issuance and is not subject to change (unless intrinsic to the security like FRBs).
- Redeemed at face value on maturity
- Maturity ranges from of 2-30 years.

### **CALL MONEY MARKET AND SHORT TERM DEPOSIT MARKET**

The borrowers are essentially the banks. DFHI plays a vital role in stabilizing the call and short term deposit rates through larger turnover and smaller spread. It ascertains the prospective lenders and borrowers, the money available and needed and exchanges a deal settlement advice with them indicating the negotiated interest rates applicable to them. When DFHI borrows, a call deposit receipt is issued to the lender against a cheque drawn on RBI for the amount lent. If DFHI lends it issues to the RBI a cheque representing the amount lent to the borrower against the call deposit receipt.

### **INTER BANK PARTICIPATION CERTIFICATES**

With a view for providing an additional instrument for evening out short-term liquidity within

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the banking system, two types of Inter-Bank Participations (IBPs) were introduced, one on risk sharing basis and the other without risk sharing. These are strictly inter-bank instruments confined to scheduled commercial banks excluding regional rural banks. The IBP with risk sharing can be issued for 91-180 days. Under the uniform grading system introduced by Reserve Bank for application by banks to measure the health of bank advances portfolio, a borrower account considered satisfactory if the one in which the conduct of account is satisfactory, the safety of advance is not in doubt, all the terms and conditions are complied with, and all the accounts of the borrower are in order. The IBP risk sharing provides flexibility in the credit portfolio of banks. The rate of interest is left free to be determined between the issuing bank and the participating bank subject to a minimum 14.0 per cent per annum. The aggregate amount of such IBPs under any loan account at the time of issue is not to exceed 40 per cent of the outstanding in the account.

The IBP without risk sharing is a money market instrument with a tenure not exceeding 90 days and the interest rate on such IBPs is left to be determined by the two concerned banks without any ceiling on interest rate.

### **BILLS REDISCOUNTING**

It is an important segment of money market and the bill as an instrument provides short term liquidity to the suppliers in need of funds. Bill financing seller drawing a bill of exchange & the buyer accepting it, thereafter the seller discounting it, say with a bank. Hundies, an indigenous form of bill of exchange, have been popular in India, but there has been a general reluctance on the part of the buyers to commit themselves to payments on maturity. Hence the Bills have been not so popular.

### **GILT EDGED GOVERNMENT SECURITIES**

These are issued by governments such as Central Government, State Government, Semi Government authorities, City Corporations, Municipalities, Port trust, State Electricity Board, Housing boards etc.

The gilt-edged market refers to the market for Government and semi-government securities, backed by the Reserve Bank of India(RBI). Government securities are tradable debt instruments issued by the Government for meeting its financial requirements. The term gilt-edged means 'of the best quality'. This is because the Government securities do not suffer from risk of default and are highly liquid (as they can be easily sold in the market at their current price). The open market operations of the RBI are also conducted in such securities.

Common money market instruments

- Certificate of deposit - Time deposit, commonly offered to consumers by banks, thrift institutions, and credit unions.
- Repurchase agreements - Short-term loans—normally for less than two weeks and frequently for one day—arranged by selling securities to an investor with an agreement to repurchase them at a fixed price on a fixed date.
- Commercial paper - short term usance promissory notes issued by company at discount to face value and redeemed at face value
- Eurodollar deposit - Deposits made in U.S. dollars at a bank or bank branch located

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outside the United States.

- Federal agency short-term securities - (in the U.S.). Short-term securities issued by government sponsored enterprises such as the Farm Credit System, the Federal Home Loan Banks and the Federal National Mortgage Association.
- Federal funds - (in the U.S.). Interest-bearing deposits held by banks and other depository institutions at the Federal Reserve; these are immediately available funds that institutions borrow or lend, usually on an overnight basis. They are lent for the federal funds rate.
- Municipal notes - (in the U.S.). Short-term notes issued by municipalities in anticipation of tax receipts or other revenues.
- Treasury bills - Short-term debt obligations of a national government that are issued to mature in three to twelve months.
- Money funds - Pooled short maturity, high quality investments which buy money market securities on behalf of retail or institutional investors.
- Foreign Exchange Swaps - Exchanging a set of currencies in spot date and the reversal of the exchange of currencies at a predetermined time in the future.
- Short-lived mortgage- and asset-backed securities

### Capital market

The capital market (securities markets) is the market for securities, where companies and the government can raise long-term funds. The capital market includes the stock market and the bond market. Financial regulators, oversee the capital markets in their respective countries to ensure that investors are protected against fraud. The capital markets consist of the primary market, where new issues are distributed to investors, and the secondary market, where existing securities are traded.

### Stock market

The term 'the stock market' is a concept for the mechanism that enables the trading of company stocks (collective shares), other securities, and derivatives. Bonds are still traditionally traded in an informal, over-the-counter market known as the bond market. Commodities are traded in commodities markets, and derivatives are traded in a variety of markets (but, like bonds, mostly 'over-the-counter').

The size of the worldwide 'bond market' is estimated at \$45 trillion. The size of the 'stock market' is estimated at about \$51 trillion. The world derivatives market has been estimated at about \$300 trillion. It must be noted though that the derivatives market, because it is stated in terms of notional outstanding amounts, cannot be directly compared to a stock or fixed income market, which refers to actual value.

The stocks are listed and traded on stock exchanges which are entities (a corporation or mutual organisation) specialised in the business of bringing buyers and sellers of stocks and securities together.

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### Primary markets

The primary market is that part of the capital markets that deals with the issuance of new securities. Companies, governments or public sector institutions can obtain funding through the sale of a new stock or bond issue. This is typically done through a syndicate of securities dealers. The process of selling new issues to investors is called underwriting. In the case of a new stock issue, this sale is an initial public offering (IPO). Dealers earn a commission that is built into the price of the security offering, though it can be found in the prospectus.

### Features of a primary market are:

- This is the market for new long term capital. The primary market is the market where the securities are sold for the first time. Therefore it is also called New Issue Market (NIM)
- In a primary issue, the securities are issued by the company directly to investors
- The company receives the money and issue new security certificates to the investors
- Primary issues are used by companies for the purpose of setting up new business or for expanding or modernizing the existing business
- The primary market performs the crucial function of facilitating capital formation in the economy
- The new issue market does not include certain other sources of new long term external finance, such as loans from financial institutions. Borrowers in the new issue market may be raising capital for converting private capital into public capital; this is known as 'going public'

### Secondary markets

The secondary market is the financial market for trading of securities that have already been issued in an initial private or public offering. Alternatively, secondary market can refer to the market for any kind of used goods. The market that exists in a new security just after the new issue, is often referred to as the aftermarket. Once a newly issued stock is listed on a stock exchange, investors and speculators can easily trade on the exchange, as market makers provide bids and offers in the new stock.

In the secondary market, securities are sold by and transferred from one investor or speculator to another. It is therefore important that the secondary market be highly liquid and transparent. Before electronic means of communications, the only way to create this liquidity was for investors and speculators to meet at a fixed place regularly. This is how stock exchanges originated.

### The rationale for secondary markets

Secondary marketing is vital to an efficient and modern capital market. Fundamentally, secondary markets mesh the investor's preference for liquidity (i.e. the investor's desire not to tie up his or her money for a long period of time, in case the investor needs it to deal with unforeseen circumstances) with the capital user's preference to be able to use the capital for an extended period of time.

For example, a traditional loan allows the borrower to pay back the loan, with interest, over a certain period. For the length of that period of time, the bulk of the lender's investment is

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inaccessible to the lender, even in cases of emergencies. Likewise, in an emergency, a partner in a traditional partnership is only able to access his or her original investment if he or she finds another investor willing to buy out his or her interest in the partnership. With a securitised loan or equity interest (such as bonds) or tradable stocks, the investor can sell, relatively easily, his or her interest in the investment, particularly if the loan or ownership equity has been broken into relatively small parts. This selling and buying of small parts of a larger loan or ownership interest in a venture is called secondary market trading.

Under traditional lending and partnership arrangements, investors may be less likely to put their money into long-term investments, and more likely to charge a higher interest rate (or demand a greater share of the profits) if they do. With secondary markets, however, investors know that they can recoup some of their investment quickly, if their own circumstances change.

### **Instruments traded in the capital market**

The capital market, as it is known, is that segment of the financial market that deals with the *effective* channeling of medium to long-term funds from the surplus to the deficit unit. The process of transfer of funds is done through instruments, which are documents (or certificates), showing evidence of investments. The instruments traded (media of exchange) in the capital market are:

#### **1. Debt Instruments**

A debt instrument is used by either companies or governments to generate funds for capital-intensive projects. It can be obtained either through the primary or secondary market. The relationship in this form of instrument ownership is that of a borrower – creditor and thus, does not necessarily imply ownership in the business of the borrower. The contract is for a specific duration and interest is paid at specified periods as stated in the trust deed\* (contract agreement). The principal sum invested, is therefore repaid at the expiration of the contract period with interest either paid quarterly, semi-annually or annually. The interest stated in the trust deed may be either fixed or flexible. The tenure of this category ranges from 3 to 25 years. Investment in this instrument is, most times, risk-free and therefore yields lower returns when compared to other instruments traded in the capital market. Investors in this category get top priority in the event of liquidation of a company.

When the instrument is issued by:

- The Federal Government, it is called a ***Sovereign Bond***;
  - A state government it is called a ***State Bond***;
  - A local government, it is called a ***Municipal Bond***; and
  - A corporate body (Company), it is called a ***Debenture, Industrial Loan*** or ***Corporate Bond***
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### 2. Equities (also called Common Stock)

This instrument is issued by companies only and can also be obtained either in the primary market or the secondary market. Investment in this form of business translates to ownership of the business as the contract stands in perpetuity unless sold to another investor in the secondary market. The investor therefore possesses certain rights and privileges (such as to vote and hold position) in the company. Whereas the investor in debts may be entitled to interest which must be paid, the equity holder receives dividends which may or may not be declared.

The risk factor in this instrument is high and thus yields a higher return (when successful). Holders of this instrument however rank bottom on the scale of preference in the event of liquidation of a company as they are considered owners of the company.

### 3. Preference Shares

This instrument is issued by corporate bodies and the investors rank second (after bond holders) on the scale of preference when a company goes under. The instrument possesses the characteristics of equity in the sense that when the authorised share capital and paid up capital are being calculated, they are added to equity capital to arrive at the total. Preference shares can also be treated as a debt instrument as they do not confer voting rights on its holders and have a dividend payment that is structured like interest (coupon) paid for bonds issues.

Preference shares may be:

- Irredeemable, convertible: in this case, upon maturity of the instrument, the principal sum being returned to the investor is converted to equities even though dividends (interest) had earlier been paid.
- Irredeemable, non-convertible: here, the holder can only sell his holding in the secondary market as the contract will always be rolled over upon maturity. The instrument will also not be converted to equities.
- Redeemable: here the principal sum is repaid at the end of a specified period. In this case it is treated strictly as a debt instrument.

***Note: interest may be cumulative, flexible or fixed depending on the agreement in the Trust Deed.***

### 4. Derivatives

These are instruments that derive from other securities, which are referred to as underlying assets (as the derivative is derived from them). The price, riskiness and function of the derivative depend on the underlying assets since whatever affects the underlying asset must

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affect the derivative. The derivative might be an asset, index or even situation. Derivatives are mostly common in developed economies.

Some examples of derivatives are:

- Mortgage-Backed Securities (MBS)
- Asset-Backed Securities (ABS)
- Futures
- Options
- Swaps
- Rights
- Exchange Traded Funds or commodities

Of all the above stated derivatives, the common one in Nigeria is Rights where by the holder of an existing security gets the opportunity to acquire additional quantity to his holding in an allocated ratio.

### **DERIVATIVES**

A **derivative** is a financial instrument which *derives* its value from the value of underlying entities such as an asset, index, or interest rate—it has no intrinsic value in itself. Derivative transactions include a variety of financial contracts, including structured debt obligations and deposits, swaps, futures, options, caps, floors, collars, forwards, and various combinations of these.

To give an idea of the size of the derivative market, *The Economist* magazine has reported that as of June 2011, the over-the-counter (OTC) derivatives market amounted to approximately \$700 trillion, and the size of the market traded on exchanges totaled an additional \$83 trillion. However, these are “notional” values, and some economists say that this value greatly exaggerates the market value and the true credit risk faced by the parties involved. For example, in 2010, while the aggregate of OTC derivatives exceeded \$600 trillion, the value of the market was estimated much lower at \$21 trillion. The credit risk equivalent of the derivative contracts was estimated at \$3.3 trillion.

Still, even these scaled down figures represent huge amounts of money. For perspective, the budget for total expenditure of the United States Government during 2012 was \$3.5 trillion, and the total current value of the US stock market is an estimated \$23 trillion. The world annual Gross Domestic Product is about \$65 trillion.

And for one type of derivative at least, Credit Default Swaps (CDS), for which the inherent risk is considered high, the higher, notional value, remains relevant. It was this type of derivative that investment magnate Warren Buffet referred to in his famous 2002 speech in which warned against “weapons of financial mass destruction.” CDS notional value in early 2012 amounted to \$25.5 trillion,<sup>[8]</sup> down from \$55 trillion in 2008.

In practice, derivatives are a contract between two parties that specify conditions (especially the dates, resulting values and definitions of the underlying variables, the parties' contractual obligations, and the notional amount) under which payments are to be made between the parties. The most common underlying assets include commodities, stocks, bonds, interest rates and currencies.

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There are two groups of derivative contracts: the privately traded Over-the-counter (OTC) derivatives such as swaps that do not go through an exchange or other intermediary, and exchange-traded derivatives (ETD) that are traded through specialized derivatives exchanges or other exchanges.

Derivatives are more common in the modern era, but their origins trace back several centuries. One of the oldest derivatives is rice futures, which have been traded on the Dojima Rice Exchange since the eighteenth century. Derivatives are broadly categorized by the relationship between the underlying asset and the derivative (such as forward, option, swap); the type of underlying asset (such as equity derivatives, foreign exchange derivatives, interest rate derivatives, commodity derivatives, or credit derivatives); the market in which they trade (such as exchange-traded or over-the-counter); and their pay-off profile.

Derivatives may broadly be categorized as "lock" or "option" products. Lock products (such as swaps, futures, or forwards) obligate the contractual parties to the terms over the life of the contract. Option products (such as interest rate caps) provide the buyer the right, but not the obligation to enter the contract under the terms specified.

Derivatives can be used either for risk management (i.e. to "hedge" by providing offsetting compensation in case of an undesired event, a kind of "insurance") or for speculation (i.e. making a financial "bet"). This distinction is important because the former is a legitimate, often prudent aspect of operations and financial management for many firms across many industries; the latter offers managers and investors a seductive opportunity to increase profit, but not without incurring additional risk that is often undisclosed to stakeholders.

Along with many other financial products and services, derivatives reform is an element of the Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010. The Act delegated many rule-making details of regulatory oversight to the Commodity Futures Trading Commission and those details are not finalized nor fully implemented as of late 2012.

Derivatives are used by investors for the following:

- hedge or mitigate risk in the underlying, by entering into a derivative contract whose value moves in the opposite direction to their underlying position and cancels part or all of it out;
  - create option ability where the value of the derivative is linked to a specific condition or event (e.g. the underlying reaching a specific price level);
  - obtain exposure to the underlying where it is not possible to trade in the underlying (e.g., weather derivatives);
  - provide leverage (or gearing), such that a small movement in the underlying value can cause a large difference in the value of the derivative;
  - speculate and make a profit if the value of the underlying asset moves the way they expect (e.g., moves in a given direction, stays in or out of a specified range, reaches a certain level).
  - Switch asset allocations between different asset classes without disturbing the underlining assets, as part of transition management.
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**Common derivative contract types**

Some of the common variants of derivative contracts are as follows:

1. Forwards: A tailored contract between two parties, where payment takes place at a specific time in the future at today's pre-determined price.
2. Futures: are contracts to buy or sell an asset on or before a future date at a price specified today. A futures contract differs from a forward contract in that the futures contract is a standardized contract written by a clearing house that operates an exchange where the contract can be bought and sold; the forward contract is a non-standardized contract written by the parties themselves.
3. Options are contracts that give the owner the right, but not the obligation, to buy (in the case of a call option) or sell (in the case of a put option) an asset. The price at which the sale takes place is known as the strike price, and is specified at the time the parties enter into the option. The option contract also specifies a maturity date. In the case of a European option, the owner has the right to require the sale to take place on (but not before) the maturity date; in the case of an American option, the owner can require the sale to take place at any time up to the maturity date. If the owner of the contract exercises this right, the counter-party has the obligation to carry out the transaction. Options are of two types: call option and put option. The buyer of a Call option has a right to buy a certain quantity of the underlying asset, at a specified price on or before a given date in the future, he however has no obligation whatsoever to carry out this right. Similarly, the buyer of a Put option has the right to sell a certain quantity of an underlying asset, at a specified price on or before a given date in the future, he however has no obligation whatsoever to carry out this right.
4. Binary options are contracts that provide the owner with an all-or-nothing profit profile.
5. Warrants: Apart from the commonly used short-dated options which have a maximum maturity period of 1 year, there exists certain long-dated options as well, known as Warrant (finance). These are generally traded over-the-counter.
6. Swaps are contracts to exchange cash (flows) on or before a specified future date based on the underlying value of currencies exchange rates, bonds/interest rates, commodities exchange, stocks or other assets. Another term which is commonly associated to Swap is Swaption which is basically an option on the forward Swap. Similar to a Call and Put option, a Swaption is of two kinds: a receiver Swaption and a payer Swaption. While on one hand, in case of a receiver Swaption there is an option wherein you can receive fixed and pay floating, a payer swaption on the other hand is an option to pay fixed and receive floating.

Swaps can basically be categorized into two types:

- Interest rate swap: These basically necessitate swapping only interest associated cash flows in the same currency, between two parties.
  - Currency swap: In this kind of swapping, the cash flow between the two parties includes both principal and interest. Also, the money which is being swapped is in different currency for both parties.
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Some common examples of these derivatives are the following:

UNDERLYING	CONTRACT TYPES				
	Exchange-traded futures	Exchange-traded options	OTC swap	OTC forward	OTC option
<b>Equity</b>	DJIA Index future Single-stock future	Option on DJIA Index future Single-share option	Equity swap	Back-to-back Repurchase agreement	Stock option Warrant Turbo warrant
<b>Interest rate</b>	Eurodollar future Euribor future	Option on Eurodollar future Option on Euribor future	Interest rate swap	Forward rate agreement	Interest rate cap and floor Swaption Basis swap Bond option
<b>Credit</b>	Bond future	Option on Bond future	Credit default swap Total return swap	Repurchase agreement	Credit default option
<b>Foreign exchange</b>	Currency future	Option on currency future	Currency swap	Currency forward	Currency option
<b>Commodity</b>	WTI crude oil futures	Weather derivative	Commodity swap	Iron ore forward contract	Gold option

(Dow Jones Industrial Average-DJIA)

Economic function of the derivative market

Some of the salient economic functions of the derivative market include:

1. Prices in a structured derivative market not only replicate the discernment of the market participants about the future but also lead the prices of underlying to the professed future level. On the expiration of the derivative contract, the prices of derivatives congregate with the prices of the underlying. Therefore, derivatives are essential tools to determine both current and future prices.
2. The derivatives market relocates risk from the people who prefer risk aversion to the people who have an appetite for risk.
3. The intrinsic nature of derivatives market associates them to the underlying Spot market. Due to derivatives there is a considerable increase in trade volumes of the underlying Spot market. The dominant factor behind such an escalation is increased participation by additional players who would not have otherwise participated due to

absence of any procedure to transfer risk.

4. As supervision, reconnaissance of the activities of various participants becomes tremendously difficult in assorted markets; the establishment of an organized form of market becomes all the more imperative. Therefore, in the presence of an organized derivatives market, speculation can be controlled, resulting in a more meticulous environment.
5. Third parties can use publicly available derivative prices as educated predictions of uncertain future outcomes, for example, the likelihood that a corporation will default on its debts.

In a nutshell, there is a substantial increase in savings and investment in the long run due to augmented activities by derivative Market participant.

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