

**Class:** M.Sc. Sem 3

**Subject :** Actuarial Practice 1

**Chapter:** Unit 2 Chapter 4

**Chapter Name:** Behaviour of Investment Market

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## 1

# The Risk Profile of Various Investment Classes

Risk and returns are directly proportionate to each other. People invest in **risky instruments** with the expectation that they will compensate with **higher returns**. High risk investments, indeed, have a **potential** for higher returns in the long run, although in the short run price fluctuations may devalue them.

## *Different Investment Avenues*

### *Government bond market*

Issuing bonds is the government's major strategy to **finance their fiscal deficit**. Bonds issued by developed countries promise the highest level of security and are almost risk free. They constitute an ideal investment strategy, for investors to match their fixed liabilities.

The demands of buyers, often influences the terms of the debt. For example, with the increasing number of people opting for pension schemes, the demand from insurance companies, has led to an increase in the duration of government bonds up to 50 years.

One benefit of investing in government bonds is its high **marketability** as the issue size is larger than private bonds. Government bonds are mostly fixed interest in nature which exposes them to **inflation risk**.

## 1

# The Risk Profile of Various Investment Classes

## *Corporate bond market*

When compared with government bonds, corporate bonds are exposed to a **higher default risk** along with inflation risk. Above it they also have **lower marketability and liquidity** as their issue size is small. Therefore, investors while choosing corporate bonds expect a return higher than that provided by government bonds. The higher return is factored in the market price and the **yield margin of the bond**, which is the difference between the returns provided by corporate and government bonds.

Financial product providers who need to match asset proceeds to a stream of benefit outgo, can structure a portfolio of bonds, so that assets can be held till maturity.

For an investor who believes in the buy and hold strategy, where in bonds once purchased are to be held till maturity, will not be affected by the bonds lower marketability as he has no intentions of selling it. Thus any additional return to compensate for poor marketability will be an added risk free reward for him and will increase the value of the bond for him.

## 1

# The Risk Profile of Various Investment Classes

## *Equity markets*

Equities are exposed to **credit, marketability and liquidity risk**, along with uncertainty in dividend payments and whether the resale value of the equity will not be loss making.

Unlike fixed interest bonds, equity moves in line with inflation and provides real returns, thus protecting the investor from **inflation risk**.

In addition to risks associated with business and the general economy, equity suffers from what is known as **contagion risk** triggered by market sentiment. Contagion risk is the risk of an event taking place in one economy having its domino effect on other economies as well. For example, the 2008 recession that started in the US, had its effects felt in economies all over the world.

Due to the global nature of multinational businesses, some part of contagion risk is inevitable, but not to the extent that markets observe. Following a period of turmoil in one market which has crept into other markets, evidence suggests that equity markets revert to rates that were seen before the turmoil after several days or weeks

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## 2

# The Idea of Supply and Demand

**Price** of any product or service is at the fundamental level regulated by the market forces of **demand and supply**. As demand rises, the general level of the market in that asset type will rise. If demand falls, then prices will fall. The existence of **close substitutes** makes demand for a product very price elastic.

Thus :

- The price of identical products or services must be close to each other, or else **arbitrage opportunities** may arise.
- A small change in price may have a maximizing effect on the demand
- Large changes in supply may only have a small change in price

**Demand has a greater influence** on product pricing, and it changes more quickly than supply. The main factor affecting demand, is **investor's expectations** for the level and riskiness of returns on an asset type.

For most of the investment products, risk and returns depend on the general economy, the product operates in. As for bonds, although their returns are fixed, the real value of its returns depends on inflation.



## 3 Factors Affecting Short Term Interest Rates

**Short-term interest rates** are largely controlled by the government through the central bank's intervention in the money market. The government sets interest rates through money market operations to support their policies and budgeting.

The **central bank** establishes a benchmark as a yardstick for all other banks to establish their interbank lending and borrowing rates. This way the central bank influences short-term interest rates throughout the economy. The reasons that influence the short-term interest rates are:

### *Controlling economic growth*

**Low real interest rates** encourage investment spending by firms and increase the level of consumer spending by firms and increase the level of consumer spending. When interest rates are low, the income earned on savings is low, the effective cost of investment and consumption financed by borrowing is also low, thus encouraging people to spend instead of saving. This leads to economic growth

# 3 Factors Affecting Short Term Interest Rates

## *Controlling inflation*

The **quantity theory** suggests a **direct relation** between the **quantity of money** in an economy and the **level of prices** of goods and services in that economy. According to this theory, if the amount of money in an economy were to double, then price levels would also double, causing inflation.

Interest rates can be considered as the price of money. Lowering interest rates, motivates people to increase their borrowing from the bank. Assuming banks give in to the borrowing demands of the consumers and increase the supply of money in circulation, the level of inflation also rises. When an increase in demand leads to an increase in inflation, it is termed as **demand-pull inflation**.

# 3 Factors Affecting Short Term Interest Rates



The quantity theory of money suggests that the exchange value of money is determined by demand and supply, like that for any other good.

$$(M) \times (V) = (P) \times (T)$$

M = money supply

V = velocity of circulation

P = average price level

T = volume of transaction of goods and services

Assuming that V and T remain constant in the short-run, an increase in the money circulation will lead to an increase in the average price P of goods and services

## 3 Factors Affecting Short Term Interest Rates

### *Controlling exchange rate*

If interest rates in one country is low relative to other countries, **international investors** will be less inclined to deposit money in that country. This **decreases demand** for the **domestic currency** and tends to decrease the exchange rate. The decrease in interest rates which leads to a decrease in exchange rate which in turn leads to cost-push inflation, as imports become costlier.

## 4 Factors Affecting the Level of Equity Market

### *Expectations of profit*

**Future dividends** are a sign of a company's profits. Valuing equity prices based on future dividends in turn reflects the company's profitability in prices

Investors' expectations of **future corporate profitability** and the value of those profits which largely determines the general level of equity market.

The main **factors affecting the general level of equity** market are:

- Expectations of real interest rates and inflation
- Investors' perceptions of the riskiness of equity investment
- Currency movement expectations

## 4 Factors Affecting the Level of Equity Market

Factors affecting the **equity supply** are :

- The number of rights issues
- Share-buybacks
- Privatizations

Factors affecting the **demand for equity** are:

- Changes to tax rules
- Institutional flow of funds
- The attractiveness of alternate investments

All these factors will affect market price in addition to the previous factors. A simple approach to valuing equity would be **discounting the dividends**. This involves projecting of **future dividends** and discounting them using an **appropriate rate of return**, that reflects the riskiness of equity.

## 4 Factors Affecting the Level of Equity Market

It is best to assume that dividend growth will be associated with the economic growth, both in real terms. The future discounting rate will typically be a **real risk-free rate** plus a **risk premium** percentage attached to it to account for the risk perception of equity. This dividend discounting model, helps identify the real risk-free rate, the equity risk premium and the real future economic growth.

### *Real interest rate*

Low real interest rates, makes borrowing cheaper, which in turn helps stimulate economic activity, increasing the level of corporate profitability and hence raise the general level of equity market. Also, if the rate of return required by investors is lower, the present value of future dividends will be higher.

### *Inflation*

If the rate of inflation is high, the rate of dividend growth will be higher, to be in line with the return demanded by investors. Although there may be some lagging in equity values reflecting inflation, in the short run, however in the long run equity values will not be depressed by inflation.

## 4 Factors Affecting the Level of Equity Market

There are some indirect effects of inflation :

- As we know high interest rates and high inflation may subside economic growth, so fears of inflation may lower equity prices.
- Real interest rates are more important than nominal interest rates. Investors expecting high inflation, would also expect the government to increase real interest rates in response.
- Often anticipation of high inflation, may result in the actual effect of inflation being lower. Uncertainty about future inflation, may make investors prefer equity over fixed interest bonds, as it provides a hedge against inflation. This increase in demand for equity, would raise its market value, at the cost of bond market.

### ***Equity risk premium***

non-existent had they invested in risk free assets. It fluctuates from time to time as it depends on the market perception of risk and overall confidence in equity



## 4 Factors Affecting the Level of Equity Market

### *Real economic growth*

It is assumed that real dividends and eventually the company's value will grow in line with the **real economic growth**. Therefore, changes in investor's view of economic growth, will have a major effect on the level of equity market.

As the economy grows, people can afford a **higher standard of living**, which empowers them to make more purchases and avail more services. This lets businesses bring in products that are in demand at much more profitable rates and enjoy the benefits of a growing economy.

For example, economic growth would motivate the purchase of cars amongst the middle class which they could not have afforded earlier. This in turn increases business for car manufacturing companies and in turn their profits, which will eventually be reflected in the higher dividends they payout to the shareholders.

## 4 Factors Affecting the Level of Equity Market

### *Currency*

A weaker domestic currency makes **exports more competitive**, so profits of companies who export goods and services should increase. Profits earned in other currencies when converted in domestic currency are more valuable.

Consider a company that exports Indian spices to the US. The company has received an order to export spices worth \$50,000. The consignment was to be dispatched in the month of February and payment was to be received in March. The USD to INR exchange rate in February was 1 USD at Rs 80 INR, and in the month of March 1 USD stood at Rs 84, when the company received its payment. Thus, enabling the company to make profits.

A weaker currency makes **imports more expensive**. This reduces corporate profits if firms cannot pass the higher costs of imported raw materials to consumers. Higher costs of raw materials also lead to inflation. However, if manufactured imports are more expensive, the market share of domestic producers of the same goods should increase.

In countries like the UK which earns most of its profits abroad, a depreciation in sterling, should raise the general level of equity market.

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# Factors Affecting the Level of Property Market

**Economic influences** have an impact on the **property market** in three main inter-related areas :

- **Occupation** – this implies the demand for commercial properties to be bought or rented
- **Development cycles** – the amount and timing of newly completed property projects
- **Investment market** – the supply and demand for properties as an investment option

The market forces of occupational supply and demand of property **for rent**, determines the existing market levels of rent, whereas the **capital value** of a rented property is determined by the investment market. The capital value of a property will also reflect the rent it would earn had it been rented.

## 6

# Commercial Property and Occupation

## *Economic growth*

Tenant demand is closely linked to the **buoyancy of trading** conditions and GDP.

Other things remaining constant, **economic growth fuels the demand** for commercial and industrial property. Economic growth increases the **purchasing power** and **standard of living** of people, which in turn increases their demand for products and services. The rise in demand leads to higher rental and property values.

The impact of economic growth will not be felt in the same manner throughout all regions of a country and across different property sectors.

Any factor that affects economic activity, such as real interest rates, will affect occupational demand for property. For instance, if the world looks at a country as a manufacturing hub due to availability of cheap labour and raw materials, the need for factories also rises

As lower real interest rates, boost economic activity, they therefore have a positive impact on rental and property values.

## 6 Commercial Property and Occupation

### *Structural Changes in the Demand for Property*

New patterns of economic activity, domestically and globally, change demand patterns. For example a trend for firms to move staff out of expensive capital city locations to cheaper areas.

As people are getting accustomed with the concept of work from home, the need for office spaces has reduced, as there are less people needed to be accommodated.

People preferring shopping online instead of physically visiting a store, has reduced the need for retail shops and increased the demand for warehouses

## 7

# Commercial Property and Development Cycles

Property being fixed in a location, takes time to **develop**. Any market can be viewed on the basis of its existing stock and by forecasting additional stock. However, in the case of property market, **supply-side lag**, due to the time taken to develop property, makes forecasting difficult.

The **development timeline** for a property can be up to five to ten years long. This can result in **surpluses** of available property when the economic cycle is in downturn, and **shortages** as the economy improves. Property development is subject to strict regulations and statutory control. Local planning authorities may frequently restrict development.

A slow development process, makes supply of property extremely inelastic, where supply cannot compete with any changes in demand. This inelasticity of supply causes big movements or jumps in property values, making them an extremely volatile investment option

## 8 Commercial Property and Investment Market

The property investment market relies on the occupancy market, as this provides the investment income and the potential for rental growth.

### *Inflation*

Property investment returns have been a good **hedge** in the long run against **unexpected inflation**. Unless there are any external influences, freeholders should be able to **increase rents in line with inflation**, so that the real value of rent is maintained.

Property rents may not always be reviewed on a frequent basis, thus properties with infrequent rent reviews, inflation erodes the real value of the rental stream between reviews.

### *Real interest rates*

Higher real interest rates, should lead to a **lower valuation** of future rents and therefore **lower capital value**. Higher interest rates make **borrowing** for a home loan or mortgage **expensive**, which reduces the demand and thereby the future rental and capital values.



## 8 Commercial Property and Investment Market

The relation between interest rates and property yields is unclear in the short term. In the longer term, **high long term bond yields tend to push up property investment yields.**

### *Other factors*

The sources of investment and whether cashflows are positive or negative are important in determining the state of the property investment market.

The main sources are :

- Institutional investors such as large financial houses, commercial banks, insurance companies
- Public or private property companies using bank debt
- International investors, where their demand is influenced by the exchange rate

## 9

# Residential Property

Residential property values are entirely driven by **supply and demand**. The government can influence supply by constraints on **new development** in high demand areas. This can be done through planning restrictions or **zonal prohibitions** around major cities.

Most of the people take **mortgages** to purchase their own property, however **high prices** compared to earnings levels limits the number of individuals who can access adequate mortgage funds to make a purchase even at low interest rates.

Theoretically the inability of most people in owning a home of their home, leads to a **lower demand** and should result in a **fall in price**. However, if interest rates are low, there is an alternative demand from investors to buy residential property and rent it out. The continuing demand for places to live drives up rental values. Rents are substantially more than what can be earned on fixed interest investments and rental income is relatively secure in times of high demand.

If there are sufficient investors to replace to replace the individual buyers who cannot raise funds, demand and hence capital values are maintained

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# Factors Affecting the Level of Bond Market

Bonds are mainly issued by **government bodies** and some **corporate bodies**, and their main investors are institutional investors. Any changes in demand or supply will have its impact on **bond yields** and ultimately on the level and shape of the yield curve.

Many a times it is the expectation in changes in one of the factors rather than the actual changes in those factors, that bring about a change in yields



A yield curve is a plot of yield against term to redemption.

Theories of the yield curve

## *Expectations theory*

Expectations theory describes the **shape** of the yield curve as being determined by economic factors, which drive the market's expectations for future short-term interest rates.

## 10

# Factors Affecting the Level of Bond Market

The **gross redemption yield** achieved from investing in bonds is nothing but the weighted average of the forward interest rates. If future **short-term interest** rates are expected to **rise**, we expect the **gross redemption yield** to also **rise** and the yield curve to slope upwards and vice versa

## Changing yield curves

According to the expectations theory, if the yield curve changes shape, it is reflected in an investor's expectation of changes in future interest rates.

## Expectations of inflation

Expected level of future inflation, is strong factor that influences an investor's expectation of future short-term interest rates.

If future **inflation is high**, the government as a means of controlling inflation is likely to **raise the short-term interest rates**. Investors do not like the value of their returns being eroded by inflation, and would thus like real positive return rates, where interest rates are higher than the inflation rates.

An upward sloping yield curve demonstrates investors' expectations of inflation and short-term interest rates to rise in the future and vice versa for a downward sloping curve.

## 10

# Factors Affecting the Level of Bond Market

## *Liquidity preference theory*

The liquidity preference theory is based on the idea that investors **prefer liquid assets** over illiquid ones. Investors require a lot of motivation in the form of high returns to encourage them to commit their funds to longer periods.

Long-dated stocks are **less liquid**, more **volatile** as well as more uncertain than short-dated ones, so yields for them should be higher.

One may assume that the graph of yield against term is an upward sloping one, but because there are factors other than liquidity that affect yields this assumption may not always hold true.

## 10

# Factors Affecting the Level of Bond Market

## *Inflation risk premium theory*

Conventional bonds, provide **nominal returns** which are known in advance. For investors having real liabilities, they are more interested in the real-interest provided by their assets, for the purpose of asset-liability matching.

Predicting the future levels of inflation, is a difficult task. This is why investors prefer a higher nominal rate of return, to protect them against the possibility of a higher inflation.

Also, future inflation levels are more predictable for **longer-dated stocks** than short-dated stocks, as it involves establishing levels for longer periods. This is another reason why long-dated stocks require a **higher returns**, as the **inflation uncertainty** prevails for longer durations.

This theory applies to investors who have **real liabilities** that need to be matched with **real assets**. Under this theory, the yield curve will tend to **slope upwards** because investors need a higher yield to compensate them for holding longer dated stocks which are more vulnerable to inflation risk than short-dated stocks.

Stocks which are index-linked, are already adjusted for the inflation factor. Hence, the inflation risk premium theory does not apply to them.

## 10

# Factors Affecting the Level of Bond Market

## *Market segmentation theory*

Market segmentation theory states that yields at each term to redemption are determined by **supply and demand** from investors with liabilities of that term. It means that long and short term interest rates are not related to each other. It also states that prevailing **interest rates for short, intermediate and long-term** bonds should be viewed separately like items in different debt markets.

The theory is based on the following **fundamental ideas**

- Different investors have different needs, wherein there may be liabilities that mature at different dates .
- It states that prices are determined by the market forces of demand and supply, and since returns are a function of price, they too are affected by demand and supply
- Investment product providers, will supply products of different terms, and will be more active at different terms in the yield curve.



## 10

# Factors Affecting the Level of Bond Market

## Supply

The supply side features of government bonds are influenced by the size of the **fiscal deficit** and the action being taken by the government to finance the deficit. Whereas for corporate bonds, supply is regulated by their **need for additional finance**, as well as the **cost of raising finance** against the cost of issuing new shares.

If there is a demand at certain duration, then it becomes cheaper for issuers to raise capital at those durations.

## Demand

Principal buyers of **short term** stocks are **banks and general insurers** who have short term liabilities of less than a year.

Major investors in **long-term** stocks are **pensioners and life-insurance companies** who have long term liabilities

These two areas of the bond market move parallelly

## 11

# Theories of Real Yield Curve

**Real yield** curves are those which are **adjusted for inflation**. Practically it is the difference between nominal yield and the average inflation rate.

It is the curve of real yields on index linked bonds against term to maturity, and like the conventional yield curve, it is also determined by the market forces of demand and supply at each maturity duration.

It is therefore assumed that it is determined by the investor's views on future yields i.e., **expectations theory**, modified according to **market segmentation theory** and **liquidity preference theory**.

The governments monetary policies will also influence the shape of the curve



Explain what an upward sloping real yield curve would indicate?

It might reflect :

1. Liquidity preference theory, where returns earned and term to maturity are directly proportional
2. Expectation that real yields are going to rise due to
  - Demand for investments falling in future
  - Demand for index-linked stocks are falling
  - Supply of investments in general increasing in future

# 12 Principle Economic Factors Affecting Bond Yields

## *Inflation*

Inflation erodes the **real value of income and capital gains** on fixed coupon bonds. Expectations of a higher rate of inflation are likely to lead to **higher bond yields** and vice versa

Investors try to speculate the future levels of inflation and will purchase the bond, only if the returns on it exceed their expectation of future inflation levels.

For **long-dated bonds**, the **current inflation levels** may not always hold in future, so investors are more interested in inflation rates prevailing for the whole life of the bond.

Publishing monthly inflation rates is a significant task undertaken by the bond markets, as this information acts like the most current one for investors to make their investment choices.

## *Short-term interest rates*

The **yields on short-term bonds** are closely related to returns on **money market instruments**, so a reduction in short-term interest rates will most likely boost short term bond prices. It can therefore be assumed that short-term interest rates influence short-term yields. However, their effects on long-dated bonds is not understood well.

# 12 Principle Economic Factors Affecting Bond Yields

**Expectations theory** suggests that if short-term interest rates were to fall, and market estimates of future short-term interest rates are also lowered, then **long-term bond yields will also fall**. However, from an investor's view-point, a cut in interest rates is seen as a sign of monetary easing, with potentially inflationary consequences over the longer term. As a result, yields on longer bonds may either fall by a negligible amount or may rise.

## *Exchange rate*

There are a lot of **overseas investors** who invest in government bonds. Any changes in the exchange will have its impact on the **demand from overseas investors**, and will alter the relative attractiveness of domestic and overseas bonds for local investors.

When investing in overseas bonds, investors are concerned about two components which are :

- The **returns** earned on overseas bonds and their value upon conversion in the local currency
- Any **profit or loss** incurred as a result of **currency rate** movements

# 12 Principle Economic Factors Affecting Bond Yields



For a Chinese investor comparing yields earned on Indian bonds and those earned on domestic bonds, the expected profits or losses from currency rate movements need to be accounted for.

If the investors decisions are solely based on investment providing the highest return while ignoring currency risk and mismatching risk, then the following equation should hold when the market is in equilibrium :

Return on n-year Indian bond = Return on n-year Chinese Govt bond + expected appreciation of Yuan against INR.

In the short run interest rates are a key determinant of the exchange rate, where any changes in the short-term interest rate in China, will affect the INR/Yuan exchange rate.

In the long run, exchange rates tend to follow the purchasing power parity principle, which reflects the market's views on India and China relative inflation levels, where changes in inflation and changes in exchange rate may offset each other, so that there will be a strong link between India and China bond yields

# 12 Principle Economic Factors Affecting Bond Yields



Purchasing Power Parity (PPP) is a popular metric used by microeconomic analysts, that compares different countries' currencies through a basket of goods approach, thereby allowing them to compare economic productivity and standard of living between countries.

According to this theory, two countries are set to be in equilibrium or are at par, when a basket of goods is priced the same in both the countries, taking into account the exchange rates. The relative version of PPP is calculated using the following formula:

$$S = \frac{P_1}{P_2}$$

Where:

$S$  = exchange rate of currency 1 to currency 2

$P_1$  = cost of goods X in currency 1

$P_2$  = cost of goods X in currency 2

# 12 Principle Economic Factors Affecting Bond Yields

## *Fiscal deficit*

If the government's fiscal deficit is funded by **borrowing through bonds**, the greater supply of bonds will put an **upwards pressure** on bond yields, especially at the durations in which the government is concentrating most of its funding.

The choice of funding made by the government, affects the yields on **conventional** and **index-linked bonds**. If the government decides to borrow by selling index-linked bonds, then their yields will rise and prices will fall, and prices of conventional bonds will rise, and their yields will fall and vice versa.

The impact of fiscal policy, depends on the funding policy adopted by the government. A full funding policy involves reducing the deficit by borrowing through index-linked and conventional bonds instead of printing money.

**Printing currency** may lead to a **fall in interest rates** and **increase in inflation**, whereas selling bonds will lead to a rise in short term interest rates. Either of the above two actions will cause the bond yields to rise, hence an increase in fiscal deficit will always cause bond yields to rise.

# 12 Principle Economic Factors Affecting Bond Yields

## *Institutional cashflow*

The demand for bonds can be affected by institutional cashflows. If **institutions** experience a sudden **inflow** of funds because of increased levels of savings, they are likely to increase their **demand for bonds**, as their cash needs to be invested in a safe investment avenue.

Changes in **regulations** and **investment philosophy** can also affect institutional demand for bonds. For example digitisation of the entire investment process in bonds may encourage investors demand in them due to ease of process, or if people prefer security of their investment over rewards, then their demand for bonds which are a safer means of investment than equity may rise.



# 12 Principle Economic Factors Affecting Bond Yields

## *Returns on Alternative Investments*

The attractiveness of alternate investment options will impact the demand as well as yields on bonds.

## *Other economic factors*

Any economic news will have its impact on inflation as well as short term interest rates. The effects of other economic factors can well be understood in the way inflation rates and short-term interest rates react to them

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# 13 Comparison of Government and Corporate Bond Yield

Economic factors which adversely affect the prospects for **corporate profitability** such as **tax rate, exchange rate, inflation** etc., are likely to increase the perceived risk of corporate bonds relative to government bonds. As a result, the **yield margin** of corporate debt over government debt will increase.

The yield margin reflects the marketability and credit risk of corporate bonds with respect to government bonds. During times of recession, where investor's perceive a higher level of default risk, the yield margin is expected to rise.

The **availability** and **price** of government debt, may at times change a risk averse investor's view point. If government bonds are low in supply and are highly priced with low yields, risk averse investor may loosen their risk attitude and may instead invest in **high quality corporate bonds** that promise better returns. This would **narrow the gap** between corporate and government debt.

Supply side issues also impact the type of debt. When equities are unattractive to investors, companies may find it easier to raise funds via debt rather than equity. Oversupply of corporate debt, reduces their prices and increases the yield

## 14 Other Influences on Investment Markets - Demand

Demand for an asset will change in either of the two circumstances :

- **Investor's opinion** of the characteristics of the asset remain unchanged but external factors alter the demand for the asset. These **external factors** are :
  - Investor's cashflows
  - Investor's preferences
  - The price of other investment assets
- **Investor's perceptions** of the characteristics of the asset, principally **risk** and **expected returns** alter.

## 14 Other Influences on Investment Markets - Demand

### *Investor's cashflows*

The amount of **money** available for investment by institutional investors, can have a **significant impact** on market prices. Its outflow and inflow in financial institutions has a significant impact on the demand for assets and their market prices.

The **level of net cashflows** in the system, can be associated with the level of savings prevailing in the economy, whereas the difference between the institutions, reflect how their savings vehicles are perceived by the investors.

For the time taken by investors to decide on their long-term investment options, cash can be invested in short-term instruments. This is especially true of changes in the flow of funds into institutions with tightly specified investment objectives.

Consider an open-ended fund investing in emerging markets that receives a large inflow of cash must invest it in markets specified in the marketing literature. This high demand can force up prices in the target market. The good returns generated might then encourage further investment, setting of a spiral of growth.

## 14 Other Influences on Investment Markets - Demand

### *Investor's preferences*

#### Liability Changes

Consider an insurance company, whose main business was selling life insurance products, and would prefer long-term real assets. The company now wants to venture in the general insurance sector, for which their asset choices would shift towards short-term fixed assets.

#### Regulatory Changes

Any changes in rules and statutory conditions that regulate the investment companies, will eventually have its impact on the choice of investments considered by the company. For example, a change in regulations requires investment institutions to play it safe and prioritize investor security, then they would prefer government bonds over equity.

#### Tax Changes

Investors wish to maximize their returns net of taxes, so if they are taxed less heavily on income than capital gains, they will tend to prefer investments with a high running yield.

Changes in tax rules, alters the attractiveness of investments to an investor and ultimately alter its demand

## 14 Other Influences on Investment Markets - Demand

### The Political Climate

The political scenario in a country determines the attractiveness of investments prevailing in it. Investors prefer investing in countries which have a stable and sound government to ensure the safety of their investments. For example, an investor considering to make an overseas investment, would prefer investing in UK than in Nigeria

### Marketing and Education

When an investor has a choice between two investments, he will prefer the one he understands better. Marketing products, educates investors about their features and helps them make more sound choices. New investment products need to be marketed efficiently to make investors know of their existence and relevance

## 14 Other Influences on Investment Markets - Demand

### *Price of alternative investments*

All investment assets, are more or less substitute goods. This is particularly so if we consider investment at the **individual security level**, but it is also true across asset classes or across international markets.

The higher the **similarity** or **degree of correlation** between different assets, the better substitutes they are to one another.

For example:

Shares of two tech companies will be similar in terms of their growth and risk characteristics, hence being close substitutes

Government bonds in developing countries which have high future growth prospects, may provide the same level of safety and returns

At times assets belonging to completely different classes can also be considered close substitutes for example investing in property or buying shares of a property company.



# 15 Other Influences on Investment Market - Supply

## *Equity markets*

An **increase in supply of shares** – e.g., a lot of new issues, will cause a downward pressure on share prices. The supply of available shares increases as a result of:

- **Rights issues** made by existing companies
- **Privatisation** of companies previously owned by the government
- **New shares** issued by companies aiming at reducing their debt-to-equity ratio.
- Rights issues are a common mechanism adopted by companies in financial distress during recession with the aim to raise additional finance.
- The additional supply of shares more than what the market demands, depresses their general price, or if the market is optimistic of a company's growth, assuming that the additional finance is for expansionary purposes, then the share price may increase.
- Conversely, **share buybacks or nationalisation of private companies** reduces equity supply

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# Other Influences on Investment Market - Supply

## *Bond markets*

In government bond markets, the supply is largely dependent on :

- The size of the **government's fiscal deficit** – larger the deficit, larger is the need for funds to finance it
- Governments strategy of **financing the deficit** – the government has several options to choose from as a means of financing their deficit such as increasing the level of tax, borrowing from the central bank, issuing bonds etc
- The **redemption** of existing permanent bonds – permanent bonds have no maturity date. However, the government may decide to redeem them or buy them back when it has sufficient funds

Companies may prefer borrowing by issuing debt when the bond market seems performing well and thus making borrowing cheaper. This is when prices are high and yields are low, thus raising more finance at a given rate of interest

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# Other Influences on Investment Market - Supply

## *Other investment markets*

Occasionally **supply** is increased by **technological innovation**. It can be argued that this is the case in derivatives markets where a greater understanding of the pricing of and reserving for complex products has allowed investment banks to supply them to end users more cheaply, thus increasing the quantity demanded.

Digitisation and sophistication has enabled investment institutions to be able to provide **cheaper** and **customised over the counter derivative products** that suit the investors need. This in general popularises the product among the masses and increases its demand.

The creation of derivative security, made to mitigate any form of risk and the reduced cost of making it available to the public and selling it is due to technological advancement

The vast range of investments available enables:

- Investors to be able to perform **asset-liability matching** more efficiently
- Creation of innovative and tailor-made derivatives to greatly **reduce any risks** involved

## Topics covered

Understanding the risk profile of various investment classes

The idea of demand and supply

Understanding factors affecting short-term interest rates

Understanding factors affecting equity prices

Understanding factors affecting property markets

Commercial property & development cycles

Commercial property & investment market

Residential property

Factors affecting the level of bond market

Theories of the yield curve

Understanding factors affecting bond yields

Comparison of Government and Corporate Bond Yield

Demand side influences on investment markets

Supply side influences on investment markets