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Course Guide

PRODUCT SPECIFIC TRAINING: EQUITY INSTRUMENTS

Visio Capital ©

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Course summary

The course is intended to provide product specific training for representatives registered in the Category I: Shares.

Time allotted for course

The course consists of 4 topics with an assessment that needs to be completed. The time allotted for each aspect is as follows:

Topic number	Title	Number of pages to read	Topic level	Time allotted
Topic 1	The market defined	6	Introductory	30 minutes
Topic 2	Equity market instruments	4	Introductory	20 minutes
Topic 3	Equity market participants	2	Introductory	10 minutes
Topic 4	Pricing of equity instruments	5	Introductory	25 minutes
	Assessment			60 minutes
	Total time			2.5 hours

Assessment and certification

After completion of the workshop the learner must complete an electronic assessment on the learning management system.

- **Form of assessment:** Multiple Choice Questions
- **Number of questions:** 10 questions
- **Duration:** 1 hour
- **Competency mark:** 70%

Upon obtaining a competency mark of 70% the learning will receive a certificate of completion. The learner will be afforded an opportunity to re-do the workshop should a competency mark not be attained.

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TOPIC 1 THE MARKET DEFINED

1.1 Introduction

The equity market together with the bond (and other long-term debt) market comprise the capital market. Capital markets are markets in which institutions, corporations, companies and governments raise long-term funds to finance capital investments and expansion projects.

The equity market consists of the mechanisms and conventions that exist for the issuing of, investing in, and trading of equity.

Equity represents ownership in a business or company. Shareholders or shareowners own the company through the purchase of shares in the company. A share is one of many equal portions of the capital of a company and gives the owner rights in respect of the company.

Typically, a shareholder has the right to:

- Share in the profits of the company.
- Share in the assets of the company if it goes into liquidation.
- Appoint directors of the company.
- Vote at shareholders meeting.

1.2 Characteristics of the market

Generally, the equity market is synonymous with the stock exchange. A stock exchange is defined as a place – physical or virtual – where buyers and sellers (the users or members of the exchange) can meet and trade under rules that are mandated by a regulator such as the Financial Services Board in South Africa.

Most industrialised nations have at least one major stock exchange.

There are two major sub-divisions of a stock market: the primary market and the secondary market. The primary market is where new share issues are sold while secondary markets are where previously issued shares are bought and sold.

There are two types of new share issues:

- *Seasoned issues*: The issuance of shares for companies that already have publicly traded shares.
- *Initial public offerings (IPOs)*: The issuance of shares for companies wishing to sell shares to the public for the first time. IPOs are usually underwritten by investment banks that acquire the issue from the company and then on-sell it to the public.

Secondary equity markets can either be stock exchanges or over-the-counter markets. Only qualified shares can be traded on stock exchanges and only by members of the exchange.

1.2.1 Johannesburg Stock Exchange

The JSE is an exchange licensed in terms of the Securities Services Act. It regulates the trading, clearing and settlement of inter alia equities, warrants and Krugerrand coins. The JSE is governed externally by SSA, which is administered by the Financial Services Board (FSB). The exchange is governed internally by its own rules and directives, which must be approved by the FSB.

While the JSE was established in 1887 to enable new mines and their financiers to raise funds for the development of the mining industry, most of the companies currently listed are non-mining organisations.

The primary functions of the exchange are:

- To generate risk capital i.e., provide a means for companies to issue new shares to raise primary capital.
- To provide an orderly market for trading in shares that have already been issued.

The JSE operates four boards or markets:

- The Main Board, which includes an Africa Board. The Africa Board, which is part of the JSE Main Board allows a company domiciled in Africa, or domiciled elsewhere in the world, but with most of its activities taking place on the African continent, to maintain its listing on its home exchange and obtain a secondary listing on the JSE
- The Venture Capital Market (VCM)
- The Development Capital Market (DCM)

- AltX is an alternative exchange running parallel to the Main Board. The primary purpose of the exchange is to facilitate capital raising for the business expansion and development of small to medium and growing companies.

The Venture Capital Market (VCM) and Development Capital Market (DCM) were previously alternative markets to the Main Board. This has changed. Although VCM and DCM listings continue to exist, the boards are not open for new listings.

The JSE operates an order-driven, central order book trading system with opening, intra-day and closing auctions.

The JSE operates broker deal accounting system (BDA) that its members are obliged to use. The system facilitates trade confirmation, the clearing and settlement of trades between members and their clients, back office accounting, drawing up financial statements and compiling client portfolio statements.

1.2.2 Strate

Strate Ltd is the licensed Central Securities Depository (CSD) for the electronic settlement of financial instruments (including equity) in South Africa. As authorised CSD, Strate provides clearing, settlement and custody or depository services for financial instruments.

Strate's underlying system (comprising the South African Financial Instruments Real-time Electronic Settlement System (SAFIRES) and its front-end system SAFE (SAFIRES Front End)) is an electronic clearing, settlement and custody system that provides secure and efficient settlement of financial instruments:

- *Electronic custody of securities:* Custody is the safekeeping and administration of shares on behalf of others. Key to custody services is the depository, which is an entity with the primary role of recording shares either physically or electronically and keeping records of the ownership of these shares. In South Africa shares are dematerialised i.e., shares are issued and traded without physical certificates, where ownership of shares exists only as an electronic accounting record in a register. Shares listed on the JSE can only be bought and sold if they have been dematerialised in the Strate system.
- *Clearing:* Clearing is the process of transmitting, reconciling and, in some cases, confirming payment orders or shares transfer instructions prior to settlement, and the establishment of final positions for settlement. Sometimes the term is used (imprecisely) to include settlement.

- *Settlement*: The completion of a share buy-and-sell transaction, where the seller transfers shares to the buyer and the buyer transfers money to the seller. Settlement can be rolling settlement, which is a procedure in which settlement takes place a given number of business days after the date of the trade.

The Strate system operates through eleven Central Securities Depository Participants(CSDPs). They are regulated by Strate.

Their functions are to hold in custody and administer securities and interest in securities records including to collate electronically in sub-registers the shareholding records for each listed company.

Participants are required to balance and reconcile their registers daily with the records in SAFIRES, where the total balance of all dematerialised shares and other securities are recorded. Clients and brokers can only interact with Strate via a Participant.

To qualify to be a Participant, entry criteria such as financial soundness set out by Strate and approved by the Financial Services Board must be complied with.

Under the Strate system there are two types of *clients*:

- *Controlled broker clients*: These clients elect to keep their shares and cash in the custody of their broker and, therefore, indirectly in the custody of the broker's chosen CSDP. Because CSDPs are the only market players who liaise directly with Strate, all brokers must have accounts with CSDPs and communicate electronically with them using the international network called SWIFT (Society for Worldwide Inter-Bank Financial Telecommunications). Controlled clients deal exclusively with their brokers and their share statements come from their brokers.
- *Non-controlled broker clients*: These clients appoint their own CSDP to act on their behalf. The investors open accounts with their selected CSDP and deal with their brokers only when they want to trade when they provide their brokers with the details of their share accounts at the CSDP. Non-controlled clients receive share statements directly from their CSDP.

Strate clears and settles both on-market and off-market trades.

Off-market trades are reported to the CSD by the CSDPs of the buyers and sellers.

There are two types of on-market transactions: broker-to-broker trades and broker-to-client trades. Once matched in the central order book, broker-to-broker trades are passed from the JSE's trading system to the CSD. Broker-to-client trades are passed from the BDA system to the CSD.

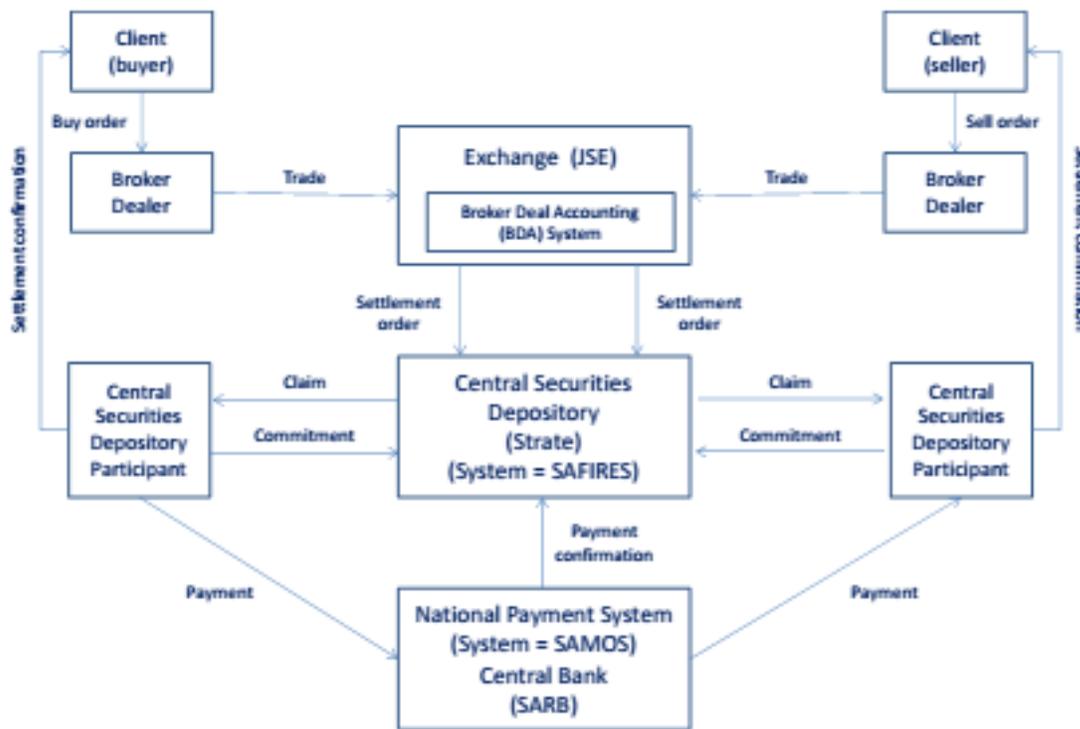
The clearing and settlement process is illustrated in figure 1.1.

Key to the clearing process is the clearinghouse or central clearing counterparty (CCP). A clearinghouse interposes itself between parties to securities transactions, becoming the buyer to the seller and the seller to the buyer.

Apart from being the CSD for both listed equity securities and bonds and some unlisted money market securities, Strate also is a licensed clearinghouse for some bond trading. Safcom, a wholly owned subsidiary of the JSE, is a licensed clearinghouse for derivatives listed on the JSE.

While the JSE is not licensed as a clearinghouse, it performs a comparable function by acting as guarantor of all trading on the equity market. The JSE does not guarantee off-market transactions.

Figure 1.1: The clearing and settlement process



In South Africa settlement occurs on a rolling basis in terms of which listed equities are settled in 5 business days after trade date, bonds in 3 days and money market instruments on trade date.

On settlement date Strate's settlement system SAFIRES confirms the availability of securities and sends a request for the transfer of cash to the SARB, which facilitates the movement of cash between clearing banks through South African Multiple Option Settlement System (SAMOS). Cash transactions are netted so a participant may be a net payer or receiver of cash from SAMOS on a settlement day. There are separate settlements for the equity market, bond market and money market.

Once the availability of cash is confirmed and transferred between SARB clearing bank accounts, Strate will transfer the securities between participants. Participants are advised of a successful settlement and the JSE reflects the corresponding client entries in its systems. The participants update their sub-registers and nominee registers and the brokers update their nominee registers.

There are two broad models of electronic settlement: immobilisation and dematerialisation. Under immobilisation securities in physical form (called scrip) are immobilised (they do not move) and are held by a central securities depository such as Strate in paper or electronic form to facilitate subsequent book-entry transfers of ownership. However, certificates or documents of title evidencing ownership of immobilised scrip can exist outside the central securities depository because participation in the immobilisation process is usually voluntary.

Dematerialisation involves dispensing with paper-based instruments and certificates altogether by replacing physical certificates and certified deeds indicating ownership of securities for an electronic record of ownership of securities.

Dematerialisation mitigates the risks associated with scrip forgery, scrip counterfeiting and loss of scrip due to fire, theft or mutilation. It allows for quick and efficient settlement by removing the need for paperwork and permitting the synchronisation of delivery of securities with payment of the corresponding cash amount; called delivery versus payment (DvP). This rapid and proficient transfer of ownership reduces cost and risk for all market participants including issuers and investors.

TOPIC 2 EQUITY MARKET INSTRUMENTS

2.1 Ordinary shares

The most important characteristics of ordinary shares are the following:

- *Perpetual claim:* Ordinary shares have no maturity date. Individual shareholders can liquidate their investments in the shares of a company only by selling them to another investor.
- *Residual claim:* Ordinary shareholders have a claim on the income and net assets of the company after obligations to creditors, bondholders and preferred shareholders have been met. If the company is profitable this could be substantial - other providers of capital generally receive a fixed amount. The residual income of the company may either go to retained earnings or ordinary dividends.
- *Preemptive right:* Shareholders have the right to first option to buy new shares. Thus, their voting rights and claim to earnings cannot be diluted without their consent. For example, Rex company owns 10% or 100 of the 1 000 shares of Blob company. If Blob decides to issue an additional 100 shares Rex has the right to purchase 10% or 10 of the new shares issued to maintain its 10% interest in Blob.
- *Limited liability:* The most ordinary shareholders can lose if a company is wound up is the amount of their investment in the company.

Returns to ordinary shareholders consist of the following:

- *Dividends:* Dividends are a portion of the company's profits. They are not guaranteed until declared by the board of directors.
- *Capital gains (losses).* These arise through changes in the price of a company's shares. Over time, companies hope to grow and profits with associated increases in the value of their shares and capital gains to shareholders. The value of shares in companies that fail / become insolvent will be worth less /worthless and shareholders will suffer a capital loss.

A company's authorised share capital is the number of ordinary shares that the directors of the company are authorised to issue. When the shares are sold to investors they become issued i.e., issued share capital.

The risk ordinary shares have for investors are:

- The value of the shareholding may fluctuate significantly over the short term as share prices are influenced by many factors other than those relating to the company's specific performance
- Ordinary shareholders are the last to recover any value on their shares should the company be wound up.

2.2 Preference shares

Preference shares are hybrid securities in that they have features of both ordinary shares and debt. Like debt, preference shares pay their holders a fixed amount (dividend) per year, have no voting rights and in the event of non-payment of dividends, may have the cumulative dividend feature that requires all dividends to be paid before any payment to common shareholders. Like ordinary shares they are perpetual claims and subordinate to bonds in terms of seniority. However, preference shares carry preferential rights over ordinary shares in terms of entitlement to receipt of dividends as well as repayment of capital in the event of the company being wound up.

Preference shares offer holders a fixed- or variable-rate dividend each year:

- *Fixed rate dividend*: The preference share pays a fixed rate and the dividend remains the same regardless of changes in market interest rates. For example, if the company has issued 40 000 preference shares at a par value of R20 each and dividend of 7% p.a., the preference share dividend paid by the company every year will be R56 000 i.e., $40\,000 \times R20 \times 7\%$. This is not necessarily guaranteed (see non-cumulative preference shares).
- *Variable-rate dividend*: The dividend paid varies with a benchmark interest rate according to a pre-defined formula. The dividend will move in line with changes in interest rates i.e., if interest rates increase, the dividend will also increase, if interest rates fall, the dividend will decrease. Corporates especially banks are issuing variable rate preference shares linked to the daily prime interest rate. For example, if the pre-defined formula is 75% of prime and the prime rate is 10%, the dividend rate will be 7.5% (i.e., $10\% \times 75\%$). Once again, the dividend is not necessarily guaranteed (see non-cumulative preference shares).

There are many different types of preference shares:

- *Cumulative*: Dividend is cumulated if the company does not earn sufficient profit to pay the dividend i.e., if dividend is not paid in one year it will be carried forward to successive years.
- *Non-cumulative*: If the company is unable to pay the dividend on preference shares because of insufficient profits, the dividend is not accumulated. Preference shares are cumulative unless expressly stated otherwise.
- *Participating*: Participating preference shares, in addition to their fixed dividend, share in the profits of a company at a certain rate.
- *Convertible*: Apart from earning a fixed dividend, convertible preference shares can be converted into ordinary shares on specified terms.
- *Redeemable*: Can be redeemed at the option of the company either at a fixed rate on a specified date or over a certain period.

2.3 Depository receipts

Depository receipts are certificates representing ownership in the ordinary shares of a company but that are traded and marketed outside of the company's home country (i.e., in a host country).

Depository receipts are quoted in the host country's currency and treated in the same way as host country shares for purposes of trading, clearance, settlement, transfer, and ownership. Depository receipts increase the company's visibility in markets outside its home country and allow the company access to capital in other countries. Investors in depository receipts will enjoy the same benefits of direct ownership in the underlying shares i.e., the investor will receive dividends and will have voting rights.

Types of depository receipts are American Depository Receipts (ADRs) and Global Depository Receipts (GDRs).

ADRs are USD-denominated depository receipts representing ownership in non-US shares issued by a US depository bank. The non-US shares are purchased by a broker on the company's home stock exchange and held by the US depository bank's local custodian. The US depository bank then issues ADRs, which are sold to US investors. The depository bank collects the dividends and makes payments to the holders of the ADRs. Prices and dividends are in US dollars. ADRs are available to US investors over the counter or on a stock exchange such as the New York Stock Exchange.

GDRs are depositary receipts available in one or more markets outside the company's home country. The advantage of the GDRs, compared to the ADRs, is that they allow the issuing company to raise capital in more than one market. GDRs are typically denominated in USD but can be denominated in Euro or British sterling. GDRs are commonly listed on European stock exchanges such as the London Stock Exchange (LSE).

South African ADRs traded on the NYSE include AngloGold Ashanti, GoldFields.

2.4 Exchange traded funds

There are two basic structures for exchange-traded funds (ETFs): physical or synthetic.

A physical equity ETF, also called a vanilla ETF, is a traded financial instrument representing ownership in an underlying portfolio of shares that tracks an index like the JSE/FTSE Top 40 Index. Investors can buy and sell ETFs on an exchange in the same way they would any other listed shares. The prices of ETFs fluctuate at once in response to changes in their underlying portfolios thereby offering the same intra-day liquidity as other shares traded on exchange. ETFs give investors exposure to a diversified basket of shares.

Synthetic ETFs attempt to obtain the return on an index by using over-the-counter derivatives such as total return swaps. As such synthetic ETFs reproduce the index synthetically rather than by replicating the index physically by owning the physical assets. Synthetic replication can be cost effective, especially if the index is illiquid. There are many variants of synthetic ETFs.

- Leverage ETFs offer multiples of for example 2 or 3 times the return of the index.
- Inverse ETFs return the inverse performance of the index i.e., a positive return when the return on the index is negative.

Physical ETFs are the dominant form of ETF, especially in the US and are mainly provided by large independent asset managers. The appeal of ETFs to investors is clear-cut: access to a low-cost diversified portfolio that can be traded intra-day. However, ETFs have become increasingly complex and opaque both in the derivatives-based structures they employ and the strategies they use to generate returns.

This has attracted the attention of financial market and banking regulatory and supervisory authorities and raised concerns about the risks, particularly structured ETFs, pose to financial stability and investor protection. This is especially true when parallels are drawn between recent developments in the ETF markets and those in the securitisation markets before the 2007/08 financial crisis. Revision of the current regulatory regime regarding ETFs may be appropriate given the growing complexity of a market.

TOPIC 3 EQUITY MARKET PARTICIPANTS

The major participants in the equity market are considered in the subsections following.

3.1 Issuers: Limited public companies

Limited public companies are the issuers of shares on regulated stock exchanges.

3.2 Investment banks

Investment banks assist companies to finance their activities by issuing securities – shares or debt.

Essentially, they purchase new issues of shares and place them in smaller parcels among investors. They also facilitate mergers of companies and the acquisition of one firm by another.

3.3 Venture capitalists

Venture capitalists invest medium and long-term funds in new (start-up) and young firms. Venture capital is risk capital. Venture capital firms also provide advice in running the business to the generally inexperienced management of the firms they invest in.

3.4 Investors

There are several types of investors:

- *Individual investors* usually hold a small personal investment in equities. However, they do have several indirect investments in equity via pension and provident funds, medical aid schemes, insurance policies, assurance policies and unit trusts.
- *Companies* could own more than 50% of a company's shares giving it controlling voting powers. In this instance, the company holding the share is referred to as a holding company and the company in which the holding company has the share is known as a subsidiary of the holding company.
- *Asset or investment management firms* advise and administer pension and mutual funds on behalf of the funds stakeholders: individuals, firms and governments.
- *Insurance companies* invest the premiums they receive in shares, bonds and property. The premiums are received in terms of insurance policies covering specific events such as death, accident, and fire.

- *Pension and retirement funds* invest the contributions of employees and employers in assets such as shares.
- *Collective investment schemes* are portfolios of assets such as shares, bonds, money market instruments bought in the name of a group of investors. The schemes are generally managed by investment companies.

In South Africa the more-liquid and better-rated shares are held almost exclusively by institutions such as pension funds and insurance companies – individuals' holdings are small.

3.5 Brokers and broker dealers

Brokers (or agents) act as agents or conduits between lenders and borrowers or buyers and sellers in return for a commission. They try to match the orders of buyers and sellers without taking ownership of the securities.

Dealers stand ready and willing to buy a security for their own account (at its bid price) or sell from their own account (at its offer price). A dealer therefore acts as a principal (buyer or seller) in a securities transaction. As principals, dealers are market makers in securities, meaning they must quote both a bid and an offer price to the market always. This implies that they profit from the spread between bid and offer prices as well as from changes in market prices. Market makers adjust their bid or offer prices depending upon positions that they hold and/or upon their outlook for changes in prices. Dealers who take positions (normally for their own account) on a very short-term basis, such as intraday, are often referred to as jobbers. Often brokers also act as dealers and/or jobbers.

TOPIC 4 PRICING OF EQUITY INSTRUMENTS

4.1 Introduction

If we can calculate the fair value (intrinsic) of a share, we can determine if the share is currently undervalued or overvalued. Undervalued shares are usually desirable as it is expected that the market price in the future will reflect the fair value price i.e. the price of the share is expected to increase over time.

However, calculating the fair value of a share is not an exact science and several theories exist. However, the subsections following consider the following five traditional methods of determining the value of a share, however there are many other theories on the behaviour and pricing of shares that will not be considered.

- Asset backing method
- Yield basis method
- Fair value method
- Return on capital employed method
- Price-earnings ratio method

4.2 Asset-backing method

Since the valuation is made on the basis of the assets of the company, it is known as Asset-Basis or Asset-Backing Method. At the same time, the shares are valued on the basis of the real internal value of the assets of the company and that is why the method is also termed Intrinsic Value Method or Real Value Basis Method.

The method can either be made by an on-going concern basis or a break-up value basis.

With the on-going concern basis, the utility of the assets is to be considered for the purpose of arriving at the value of the assets.

With the break-up value basis, the realizable value of the assets is to be taken.

Under this method, the value of the net assets of the company is to be determined first.

The following steps should carefully be followed while calculating Net Assets or the Funds Available for Equity Shareholders:

- Ascertain the total market value of fixed assets and current assets.
- Compute the value of goodwill (as per the required method).
- Ascertain the total market value of non-trading assets (like investment) which are to be added.
- All fictitious assets (Preliminary Expenses, Discount on issue of Shares/Debentures, Debit-Balance of P&L A/c etc.) must be excluded.
- Deduct the total amount of Current Liabilities, Amount of Debentures with arrear interest and Preference Share Capital with arrear dividend.
- The balance left is called the Net Assets or Funds Available for Equity Shareholders.
- This is divided by the number of equity shares to arrive at the intrinsic value of the share.

This is detailed in the table following:

Calculation of Net Assets

Fixed Assets (Market Value)	XX
+ Investments (Market Value)	XX
+ Current Assets (Market Value)	XX
+ Goodwill (Market Value)	XX
	XX
- Current liabilities	XX
- Debentures with arrear interest	XX
- Preference share capital (with arrear dividend)	XX
	XX
= Net Assets/Funds available for equity shareholders	XXXXX

$$\text{Intrinsic value of share} = \frac{\text{Funds available for equity shareholders}}{\text{Number of equity shares}}$$

Alternatively, the net assets can be calculated as follows:

$$\text{Net assets} = \text{Share capital} + \text{Reserves and surplus revaluation} - \text{loss on revaluation}$$

4.2.1 Applicability of method

The method is particularly applicable when the shares are valued at the time of Amalgamation, Absorption and Liquidation of companies and also when shares are acquired for control motives.

The method can also be used by investor to determine the value of this shares at the time of purchasing.

4.3 Yield-basis method

Yield is the effective rate of return on investments which is invested by the investors. It is always expressed in terms of percentage. Since the valuation of shares is made on the basis of Yield, it is called Yield-Basis Method.

Yield is calculated as follows:

$$\text{Yield} = \frac{\text{Normal profit}}{\text{Capital employed}} \times 100$$

Under the yield-basis method, valuation of shares is made on either a profit basis or a dividend basis. The subsections following consider both of these basis.

4.3.1 Profit basis

Under this method, at first, profit should be ascertained on the basis of past average profit; thereafter, capitalized value of profit is to be determined on the basis of normal rate of return, and, the same (capitalized value of profit) is divided by the number of shares in order to find the intrinsic value.

This is done as follows:

$$\text{Capitalised value of profit} = \frac{\text{Profit}}{\text{Normal rate of return}} \times 100$$

$$\text{Intrinsic value} = \frac{\text{Capitalised value of profit}}{\text{Number of shares}}$$

4.3.2 Dividend basis

Valuation of shares under the dividend basis may be made either on the basis of total amount of dividend or on the basis of rate of dividend

(I) On the basis of total amount of dividend

$$\text{Capitalised value of profit} = \frac{\text{Total amount of dividend}}{\text{Normal rate of return (yield)}} \times 100$$

$$= \text{Intrinsic value} = \frac{\text{Capitalised value of profit}}{\text{Number of equity shares}}$$

(II) On the basis of rate of dividend

$$= \text{Intrinsic value} = \frac{\text{Rate of dividend}}{\text{Normal rate of return}} \times \text{Paid - up value of share}$$

The rate of dividend can be calculated as follows:

$$\text{Rate of dividend} = \frac{\text{Profit}}{\text{Equity share capital (paid - up)}} \times 100$$

4.3.3 Applicability of method

Whether Profit Basis or Dividend Basis method is followed for ascertaining the value of shares depends on the shares that are held by the respective shareholders. In other words, the shareholders holding minimum number of shares (i.e., minority holding) may determine the value of his shares on dividend basis since he has to satisfy himself having the rate of dividend which is recommended by the Board of Directors, i.e., he has no such power to control the affairs of the company.

On the contrary, the shareholders holding maximum number of shares (i.e., majority holding) has got more controlling rights over the affairs of the company including the recommendation for the rate of dividend among others. Under the circumstances, valuation of shares should be made on profit basis. In short, Profit Basis should be followed in the case of Majority Holding, and Dividend Basis should be followed in the case of Minority Holding.

4.4 Fair value method

There are some accountants who do not prefer to use Intrinsic Value or Yield Value for ascertaining the correct value of shares. They, however, prescribe the Fair Value Method which is the mean of Intrinsic Value Method and Yield Value Method. The same provides a better indication about the value of shares than the earlier two methods.

$$\text{Fair value} = \frac{\text{Intrinsic value} + \text{Yield value}}{2}$$

4.5 Return on capital employed method

Under this method, valuation of share is made on the basis of rate of a return (after tax) on capital employed. Rates of return are taken on the basis of predetermined/expected rates of return which an investor may expect on the investments. After ascertaining these expected earnings, we are to determine the capital sum for such a return.

Thus, we are to follow the following process:

- Ascertain the expected (maintainable) profit (after adjustments, if any).
- Ascertain the normal rate of return on capital employed for a similar business.
- On the basis of expected rate of return, capitalize the (maintainable) profit.

Symbolically this can be depicted as follows:

$$\text{Intrinsic value} = \frac{\text{Rate of return on capital employed}}{\text{Market rates of expected return}} \times \text{Paid up value of share}$$

4.6 Price-earnings ratio method

The price earnings ratio is the ratio which relates to the market price of the share to earning per equity.

The price earning ratio method is applied as follows:

$$\text{Price – earning ratio} = \frac{\text{Market prics of share}}{\text{Earnings per share}}$$

Using PE ration, we can ascertain the value of share as follows:

$$\text{Intrinsic value} = \text{Earning per share} \times \text{PE Ratio}$$