



KCE COLLEGE

ADVANCED FINANCIAL MANAGEMENT

SECTION FIVE

CORPORATE VALUATION

Corporate requires regular valuation. This corporate valuations can be possible by use of several appendicies.the most common methods of corporate valuation are:

1. Economic value added (EVA).
2. Enterprise value (EV).
3. Use of free cash flows.
4. Use of valuation models i.e. James Walter model and litners model.

ECONOMIC VALUE ADDED (EVA)

Its an economic model developed by Stern &Steward. It uses the residual of wealth to value the firm.

- The higher the EVA, the better the performance.
- Eva uses cash flows which will be determined by adjusting the profits.
- EVA is the difference between net operating profit after tax (NOPAT) and the return on capital employed (ROCE).

$$EVA=NOPAT-ROCE.$$

The following steps are used:

- a) Determine the NOPAT.
- b) Determine the capital employed.
 - a. Capital employed=equity=share capital +reserves +retained profit.
- c) Determine the WACC if not provided by either using CAPM or the weighted average.
- d) Determine the return on capital employed.
- e) Determine EVA.

Accounting adjustments;

1. Interest on debt capital should be added back net of tax.
2. Research and development costs and goodwill written off should be added back, capitalized and then amortized over the period of use.

3. Non-cash expenses should be added back and computed on economic basis.
4. Depreciation and amortization should be added back.
5. Goodwill should be added back to the capital employed.

Advantages of using EVA.

1. It's a true indicator of the actual wealth created for the shareholders
2. It's a good measure of performance evaluation.
3. It's simple to understand and explain to managers.
4. EVA is consistent with the objective of maximizing shareholders wealth.
5. It uses cash flows and hence less easy to be manipulated.
6. It's widely used to evaluate manager's performance.

Disadvantages of EVA

1. It's complex to calculate where large transactions are involved.
2. It's based on historical information and hence does not consider the future flow.
3. It is not suitable for small enterprises since it doesn't take into account the size of the firm.
4. It uses the assumptions of CAPM to determine the required rate of return.
5. It's not good for comparison since it doesn't consider the size of the company.

Why EVA has gained prominence.

- It's less easy to manipulate than accounting figures.
- It takes into account the cost of capital.
- It makes managers accountable.
- It helps the managers to link the balance sheet to the P&L account.

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ILLUSTRATION.(refer NOV 2015 q4)

JM Ltd has 2 divisions, J & M which are managed by two different managers. Data from the two divisions are as follows.

	J	M
✓ Total assets	100,000	80,000
✓ Revenue	107,000	90,000
✓ Expenses	87,000	70,000

The minimum rate of return on the investment is 12.5%. the corporate tax rate is 35%.expenses include interest payable on 10% debentures worth 50,000 in J and interest payable on an 11% loan worth 10,000 in M. The company uses EVA to measure performance of the managers. Required; compute EVA for each division.

SOLUTION.

	Division J	Division M
✓ Revenue	107,000	90,000

✓ <i>Less operating expenses (exclude interest)</i>	<u>82,000</u>	<u>68,900</u>
✓ <i>EBIT</i>	<u>25,000</u>	<u>21,100</u>
✓ <i>Less tax @ 35%</i>	<u>8,750</u>	<u>7,385</u>
✓ <i>NOPAT</i>	<u>16,250</u>	<u>13,715</u>

EVA=NOPAT-cost of capital.

Division J EVA=16250-(12.5% × 100,000) =3750

Division M EVA=13715-(12.5% × 80,000) =3715

According to EVA J is performing better than M

USE OF ENTERPRISE VALUE. (EV)

This is also an economic approach that takes into account the summation of all market value of those who have a rightful claim to the assets of the firm i.e. ordinary shareholders, preference SH, debentures holders, NCI.

EV= market value of ordinary shares +market value of Preference shares +market value of long term debt-cash and cash equivalents.

Advantages.

1. It is simple and easy to understand.
2. It is not affected by the accounting policies and standards.

Disadvantages.

1. Determination of the market value may be subjective.
2. It does not take into account size of the firm and hence no comparison can be made.

USE OF FREE CASH FLOWS

Free cash flows are the cash-flows available for distribution to the owners. This is the cash that can be used for any other use including capital expenditure. This is the cash-flows after adjusting for all cash payment. Free cash-flow may later be discounted to determine the present value of free cash-flows.

The higher the PV of cash-flows the better the performance.

Free cash-flows=sales –costs –tax + provisions –capital expenditure.

Advantages.

1. Use cash-flows not profits.
2. It is easier to understand.

Disadvantages.

1. Sometimes re-adjusting the net profit may not be easy.

ILLUSTRATION. DEC 2011Q3B MAY 2019 Q5B)

JM Ltd operates a gym in Subukia and another one in shamahoho. The following are transactions expected in the next 2 years.

Period	Year 1	Year 2
Sales	50,000	80,000
Administration expenses	10,000	20,000
Interest expense	5,000	4,000
Capital expenditure	8,000	7,000

Additional information.

1. The corporate tax rate is 40% and the cost of capital is 12%.

Required: using free cash-flow, determine the minimum amount JM Ltd would be willing to sell the gym.

SOLUTION.

Minimum amount to sell=PV of the free cash-flows

Free cash flow

Period	Year 1	Year 2
Sales	50,000	80,000
Less admin expenses	(10,000)	(20,000)
Less interest	(5,000)	(4,000)
PBT	35,000	56,000
Tax 40%	(14,000)	(22,400)
PAT	21,000	33,600
Less capital expenditure	(8,000)	(7,000)
Free cash-flows	13,000	26,600
PV factor $(1+0.12)^{-1}$	0.8929	0.7972
PVCF	11,608	21,205

Minimum amount to accept= $11,608+21,205=32,813$

USE OF VALUATION MODELS.

(a). JAMES WALTER MODEL.

James Walter developed a valuation model of determining the value of the share and the value of the share would be the value of the company.

Assumptions of James Walter model.

1. The form is an all equity financed.

2. The return on investment is constant.
3. The firm will finance all its investments using the retained earnings.
4. The firm is a going concern to infinity.

Based on the above assumptions, James Walter developed the following model.

$$P_0 = \frac{E + (E-D) r/k}{K}$$

PO=value of the share

E=EPS

R=return on equity

D=DPS

K=cost of capital

VALUATION OF BUSINESS SECURITIES.

Valuation is the process of determining the worth/value of security using financial information available.

THEORETICAL VALUE/INTRINSIC VALUE-is the value attached to a security.

Reasons for valuation of securities.

1. For liquidation purposes
2. Listing or quotation in the stock exchange.
3. In order to use security as a collateral.
4. In case of selling the security.
5. For tax and insurance purposes.
6. For mergers and acquisition.

Theories of valuations.

1. FUNDAMENTAL THEORY OF VALUATION

This theory states that the theoretical value of the security is equal to the present value of all the future expected benefits to be realized from that security.

Value of the security=present value of the annuity(interest/dividend)+ PV of redemption value.

ILLUSTRATION

QUESTION ONE

An investor is holding a 10 year, 13% sh 1000 par value debenture which will be redeemed at 10% premium at the end of 10 years. The current market value of the debenture is sh.1200. The cost of capital is 10%.

Required:

Determine the theoretical value of the debenture.

QUESTION TWO

Akili Ltd has issued a debenture whose par value is sh 1000. The debenture can be redeemed at par after four years or converted to ordinary shares at a conversion rate of sh 100 per share. The projected market price of the share after the four year period could be either sh 90 or sh 120 based on the company's performance.

The investors required rate of return is 10%.

Required:

The value of the debenture based on each of the expected share price (8 mks)

2. TECHNICAL /CHARTIST THEORY.

This theory states that the price pattern of the past could repeat itself in the future.

3. RANDOM WALK THEORY.

It states that it is not possible to predict the theoretical value of the security i.e. the value of the security moves in a random manner depending on the information given to the market.

VALUATION OF ORDINARY SHARES

Ordinary shares are classified into 3 categories for the purpose of valuation.

(a) Zero dividend growth rate ordinary shares.

In this case the company promises to pay constant dividend per share for each period ie

$$D_0=D_1=D_2=D_3=D_n$$

In this case the intrinsic value = $PVA \alpha = D/Ke$

(b) Constant dividend growth rate ordinary share.

This is where the dividend will increase at a constant rate until infinity. In this case

$$\text{Intrinsic value} = PVA g \alpha = \frac{D_0(1+g)}{Ke-g}$$

(c) Non-constant dividend growth rate shares (MAY 2019 Q2B)

This is where the dividend will increase at different rates during the earlier period of the economic life of the project before the growth rate becomes constant until infinity. The theoretical value in this case will be calculated as follows:

Intrinsic value (Po)=Pv of dividend during non-constant period + Pv of dividend during constant period

$$\text{PV of dividend during constant period} = \frac{D_0(1+g)}{K_e-g}$$

Illustration

QUESTION 1

MNL Ltd has current dividend of sh.2 per share. The following are the expected annual growth rates for the dividend.

Year	dividend growth rate (%)
1-3	25
4-5	20
6-8	15
9 α	10

The required rate of return is 12%.

Required: determine the value of the ordinary share.

QUESTION 2

Twa Ltd generated sh 50 million profit after tax in the previous financial year. The firm adopts 40% payout ratio as its dividend policy. The total number of issued ordinary shares is 10,000,000.

The company has a potential investment opportunity. If undertaken, dividends are expected to grow at the rate of 10% each year for the first 3 years and then stabilize at the rate of 5% each year thereafter in perpetuity.

The investors minimum required rate of return is 18%.

Required:

The current intrinsic value of the share

Characteristic of efficient market.

Market is said to be efficient if it has the following features.

- Information once received in the market, it's immediately incorporated in the security prices.
- The transaction cost like commission paid to brokers should be minimum to avoid discouragement.
- There should be continuous trading of securities.
- There should be no speculations in the market.

- No investor should receive information earlier than others i.e. no insider trading.

FORMS OF MARKET EFFICIENCY.

1. **WEAK FORM EFFICIENCY**-this is where the security price reflects all the historical information concerning the company's performance.
2. **SEMI-STRONG FORM EFFICIENCY**-In this case the share price will reflect all past and present information concerning the company's performance.
3. **STRONG FORM EFFICIENCY**-Security price reflects all the past, present and future information concerning the company's performance.

Market anomalies.

These are events which makes the market to be inefficient. They include:

1. **Insider trading**-this occurs when some investors gets information earlier than others by their position in the organization.
2. **January effect**-evidence suggest that market normally performs poorly during the month of January and therefore this makes the investor to buy securities at the end of December or at the start of January and sell them during the month of march to realize abnormal gains.
3. **Monday effect**-the market prices of the security are normally lower on Monday due to low demand of securities.
4. **Announcement effect**-evidence suggests that security prices changes for some time after the initial announcement.
5. **Size effect**-small companies' interms of total asset to the market value are normally affected by well established companies who dominate the market.

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