UKS31176

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FINANCIAL MANAGEMENT

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Question 1

A.

Cost of capital and capital structure

Capital structure and WACC

$D0(1+g)^n = Dn$

Dn= final dividend

D0=initial dividend

G= growth rate

N= number of periods (4 laps)

$22(1+g)^n = 29$

$1+g = (29/22)^{0.25} = 1.07150$

1+g= 1.07150

g= 1.07150-1 = 0.07150*100= 7.15%

Step 1. Calculate Cost of Equity, Ke (using the dividend valuation model)

Ke= [d0(1+g)]/P0 + g or Ke=d1/P0+g

d0= current dividend

d1= dividend next year

P0= MV (market price)

Ke=[29(1+0.07150)+ 0.07150

Ke= (0.29*1.07150)/2.65+ 0.07150

Ke=(0.010735/2.65)+0.07150 = 0.11725+0.07150

Ke= 0.188758*100 = 18.87%

The given formula is used to calculate a company's cost of equity using the dividend valuation model. The first stage is to compute the growth rate, which is calculated by multiplying the final and starting earnings by the number of periods (Harvey, 2020). The ultimate dividend in this instance is £0.29, the starting dividend is £0.22, and the number of periods is four. The increase rate is estimated to be 7.15% using this information. The payout pricing formula is then used to determine the cost of equity, Ke. This is accomplished by combining the present dividend, the anticipated dividend for the next period, and the stock's market price. The current payout in this

instance is £0.29, and the market price is £2.65. The cost of equity is estimated to be 18.87% using this knowledge.

B.

Calculation of Cost of Preference share

Kpref= d/P0

P0= current market price of preference share capital after payment of current dividend

d= dividend received

Kpref= cost of preference share capital

Preference shares Kps=7/75= 0.0933*100 = 9.33%

The cost of preference share capital (Kpref) is calculated correctly using the formula Kpref = d/P0, where d is the payout earned and P0 is the prevailing market price of preference share capital after the current payout is paid. Using the information given in the case study, the finance director computed the Kpref for Alpha PLC as 9.33%, where the current market price of preference share capital (P0) is 75p per share and the dividend received (d) is 7p per share. It is essential to note, however, that the price of capital for preference shares is not the same as the cost of debt or stock. Preference shares are a type of funding that combines elements of debt and stock (Kubenka, 2020). They are similar to debt in that they pay a set income, but they differ from debt in that they have no expiration date and are secondary to debt in the event of insolvency. As a result, when determining a company's total cost of capital, the cost of preference share capital should be handled differently than the cost of debt or equity. The weights of each funding component should be determined by their market worth, and the cost of each component should be adjusted for tax consequences, as interest payments on loans are tax-deductible, but dividend payments on preference shares are not tax-deductible. Furthermore, the finance director's presumption that the price of preference shares will decline to 68p following the planned capital structure changes may be incorrect. Preference shares are priced based on a variety of variables, including the company's financial success, market conditions, and investor sentiment. The market may regard the repurchase of ordinary shares as a favorable move, causing the price of preference shares to rise. While the financial director's estimate of the cost of preference share capital is accurate, when calculating a company's total cost of capital, it is essential to consider the hybrid nature of preference shares (Yıldırım, 2021). Furthermore, the

presumption that the price of preference shares will decline following the planned capital structure adjustments should be carefully examined, as it is dependent on several variables that are not certain.

C.

The finance director's projections for the planned adjustments to Alpha PLC's capital structure are based on many factors that may result in errors.

The finance director anticipates that the repurchase of ordinary shares will cause the company's share price to climb to £2.78. There is no guarantee, however, that the market will react favorably to the repurchase, and the share price may not rise as anticipated. The share price may be affected by market circumstances, investor sentiment, and the company's financial success. An increase in dividend growth rate: The director anticipates that the future payout growth rate will rise by 20% in relative terms (Breitschopf and Alexander-Haw, 2022). While this is conceivable, it is not guaranteed, and the real pace of growth may vary from the estimate. The dividend growth rate may be influenced by the company's financial success, market circumstances, and investor opinion. He predicts that the price of preference shares will decline to 68p following the suggested changes. The price of preference shares, on the other hand, is determined by a variety of variables, including the company's financial success, market conditions, and investor sentiment. The market may regard the repurchase of ordinary shares as a favorable move, causing the price of preference shares to rise. The finance director's forecasts do not account for the planned changes' tax consequences. Debt interest payments are tax-exempt, but income payments on preferred stock are not. As a result, the real cost of debt and preference share capital will vary from the nominal cost, and this should be factored into the total cost of capital calculation (Barrientos, 2020). He based his projection on stable market circumstances. Market circumstances, on the other hand, can be volatile and unpredictable, affecting the cost of money and the company's capacity to acquire funds through loans or equity. The finance director's projections do not take into account the redemption of outstanding 10% notes. The bond redemption will result in a revenue loss, which may have an impact on the company's liquidity and financial situation. The finance director's projections for the planned adjustments to Alpha PLC's capital structure are based on some factors that may result in errors. It is critical to consider the doubts and dangers involved with the suggested adjustments, such as market

circumstances, tax consequences, and bond redemption. To correctly estimate the influence of the suggested changes on the company's cost of capital and financial success, a comprehensive analysis of the company's financial situation, market conditions, and investor sentiment is required.

D.

The optimal capital structure is subject-matter of interest has long piqued the interest of academics and practitioners. One of the most compelling reasons for including debt in a company's capital structure is that it can help reduce the Firm's WACC (Rahman, 2022). Some studies have discovered that businesses with greater levels of debt have smaller WACCs, whereas others have discovered no meaningful relationship between debt and WACC. The reasons for these contradictory findings are complex and rely on several variables. The tax buffer effect is one reason why greater amounts of debt may be linked with reduced WACCs. Debt interest payments are tax deductible, lowering the company's taxable revenue and thus its tax obligation. This tax break decreases the actual cost of debt funding, lowering the WACC. This impact, however, is limited because debt interest is not always completely tax-deductible, and the company's effective tax rate may vary based on its particular circumstances. The risk-return tradeoff is another reason why greater levels of debt may be linked with reduced WACCs. Debt is regarded as riskier than equity because it entails a set duty to pay interest and principal regardless of the company's financial success. This riskiness is mirrored in loan costs, which are typically cheaper than equity costs. However, the nature of a company's operations, sector, and total financial situation all have an impact on its risk profile, which may limit the degree to which debt can be used to reduce the WACC (AlKhouri and Suwaidan, 2023). Furthermore, while more debt lowers the WACC, it increases the company's financial danger. The use of debt financing raises the company's leverage, requiring a larger percentage of its profits to be used to service debt. This may expose the business to default and collapse, especially in difficult economic times. The expense of debt rises in tandem with the amount of debt, reflecting the increased financial risk linked with a high level of leverage. Overall, the debt-WACC relationship is complicated, and the optimum capital structure will be determined by a variety of variables unique to the business and its market. While incorporating a reasonable amount of gearing into the capital structure of an organization may help to reduce its WACC, it should be

done with caution and after careful consideration of the business's risk composition and financial situation. It is also critical to consider the effect of debt on other financial measures and the company's total financial health. While some empirical data suggests that businesses with greater levels of debt have lower WACCs, the relationship between debt and WACC is complex and relies on a variety of variables (Alkaraan, 2020). Companies must carefully weigh the risks and benefits of using debt funding and ensure that any gearing integrated into their capital structure is reasonable and suitable for their particular circumstances.

Question 2

a)

i) The payback period

Payback period= A+ B/C = 3+ 15,600/190,900 = 3+0.08 = 3.08 years (36 months)

A is the last period with a negative cumulative cash flow

B is the absolute value cumulative cash flow at the end of the period A

C is the total cash flow during the period after A

ii) ARR

Step 1. Calculate Average Annual Profit

Inflows years 1-6	
223,600*6=	£1,341,600
Less: Annual expenses	
32,700*6=	£-196,200
Less: Depreciation	
588,300-88,245=	£-500,055
Total profit:	
£1,341,600-£196,200-500,055=	£645,345
Average Annual Profit:	
£645,345/6=	£107,557.5

Step2. Calculate Average Investment

Average investment= (Cost+Scrap value)/2

=(588,300+88,245)/2= 338,272.5

Step3. Use ARR Formula

ARR=(average annual net profit before taxation/average annual capital employed on the project)*100

ARR= (£122,265/£338,272.5)*100= 0.3614*100= 36.14%

Therefore, it means that for every pound invested, the investment will return a profit of 36 pence.

iii) NPV

NPV= (y1+y2+y3+y4+y5+y6)-y0 = 938125.05-588,300= £349825.05

iv) IRR

NPV= (y1+y2+y3+y4+y5+y6)-y0 = 563,155 – 588,300 = £-25,145

IRR = 17%+(£294,230.7*17/632,503.2) = 17% + (£5,001,921.9/632,503.2)

IRR = 17% + 7.90

IRR=24.9%

b)

The suggestion by (MTS) Limited's finance director to use 40% of the total capital expenditure for the new storage machine investment to buy some of the equity capital and pay cash rewards could have many consequences for the business. On the one hand, share repurchases may improve profits per share (EPS) while decreasing the number of outstanding shares. Shareholders may view this as good because the value of their shares rises as the number of shares decreases. Furthermore, share repurchases may indicate to the market that the business is optimistic about its prospects, which could lead to an increase in stock price. However, share repurchases may harm the business. For starters, share repurchases deplete the company's capital reserves, leaving it vulnerable to financial threats. This may result in a lower credit ranking, making future borrowing more difficult and costly for the business (Metzger and Schinas, 2019). Second, some investors may view share repurchases negatively, preferring the business to use its cash reserves to engage in development prospects or pay larger dividends. Finally, share repurchases may reduce the amount of liquidity in the company, resulting in less selling action and a wider bid-ask spread. The plan to distribute cash dividends may have both good and negative consequences for the business. On the one hand, cash dividends may be regarded as a method of rewarding

stockholders and increasing their devotion to the business. This may result in the company's image improving and attracting new partners (Hashmi, Gulzar, Ghafoor and Naz, 2020). Furthermore, cash dividends may help the business keep its dividend policy and indicate to the market that the company is fiscally secure. Paying cash dividends, on the other hand, may have a detrimental impact on the business. To begin with, paying dividends may deplete the company's financial reserves, limiting its ability to engage in development prospects or pay off debt. Second, paying dividends may not be regarded favorably by all stockholders, as some may desire that the business reinvest its earnings for future development. Finally, paying cash dividends may result in a greater tax load for investors, resulting in a decline in total returns. Unlike the finance director's suggestion, MTS management intends to pay a dividend (Locatelli, Mancini and Lotti, 2020). A script dividend is a type of dividend payment in which shareholders can choose between receiving cash or extra shares in the business. Script dividends have the benefit of allowing the business to preserve cash assets while still rewarding stockholders. Furthermore, script dividends may be regarded favorably by some investors because they allow dividends to be reinvested in the business. Both the suggestion by (MTS) Limited's finance director and MTS management's plan to issue a script dividend may have both good and negative consequences for the business. Before reaching a final choice, the business must thoroughly consider these effects and weigh the benefits and cons of each plan (Valier, 2020). Furthermore, to prevent negative consequences, the business should ensure that its choice is communicated explicitly to shareholders and other stakeholders.

c)

MTS Limited has several financing options accessible to help fund the endeavor. Here are three suggested sources of finance, along with a comparison of the variables connected with each source versus a publicly traded company:

Equity financing:

Equity funding entails generating funds by selling ownership shares in a business to investors. It is a common way of financing businesses, including publicly traded companies. Unlike debt funding, the business does not have to reimburse the owners when it issues shares. However, stock funding dilutes current shareholders' ownership (Crosby, Devaney and Wyatt, 2020). The current shareholders' proportion of ownership will decrease as more shares are distributed.

Dividends paid to shareholders as part of equity financing are an extra expense to the business. As a privately held business, MTS Limited may find it challenging to draw equity investors when compared to a publicly traded firm.

Debt financing:

Obtaining funds from lenders or financial organizations is what debt funding entails. It is a common financing choice for businesses, including publicly traded firms. Unlike equity financing, debt financing enables the business to maintain ownership and control. It does, however, require the business to pay interest on the loaned amount, which can be substantial (Oyewo, 2021). The return of the loaned sum is also a contractual duty, and failing to refund can lead to the company's bankruptcy. MTS Limited may find it more difficult to obtain loan funding than a listed company because lenders may consider the company to be a higher risk than a listed company.

Crowd funding:

Crowd funding is a comparatively new type of fundraising in which funds are raised from a large number of people via online networks. Crowd funding can be an attractive choice for tiny businesses, including private firms such as MTS Limited. Crowd funding gives you access to a large group of prospective donors, which can help diversify your investor pool (Ekwueme, Zoaka and Alola, 2021). However, it can be time-consuming and necessitates the creation of an appealing pitch to draw investors. Furthermore, crowdsourcing sites may charge a price for listing the campaign, and donors may anticipate rewards or equity in return for their investment.

The most suitable funding choice for MTS Limited will be determined by several variables, including the cost of capital, investor risk capacity, the legal climate, and the company's development possibilities. While each financing choice has benefits and disadvantages, before making a definitive decision, MTS Limited should consider the long-term effect on the company's financial health.

d)

Investment appraisal methods are used to evaluate a suggested project's prospective profitability. They are used to assist businesses in identifying viable initiatives and making choices about which projects to pursue (Jagun, 2020). There are several business appraisal techniques, each

with its own set of advantages and disadvantages. This part will assess the advantages and disadvantages of four common business appraisal methods.

Payback Period

Payback period is the length of time it takes for a business to return its initial investment. The payback period is calculated by making a division of the original cost of the investment by the annual inflows of the income. The payback period is a simple and uncomplicated way of company evaluation. It provides a fast assessment of the potential profitability of an investment. Payback period, on the other hand, does not take into consideration the value of money over time or the overall success of the endeavor over the course of its life. Furthermore, it does not account for the cash inflows that occur beyond the repayment period.

ARR

ARR is calculated as the ratio of average yearly earnings to original expenditure. Divide the average yearly profit by the original expenditure to determine the accounting rate of return (Glumac and Des Rosiers, 2021). ARR provides a measure of the profitability of an investment over its entire life. It is easy to calculate and can be compared to other investments to determine which is more profitable. However, it does not take into account the time value of money or the total profitability of the investment over its entire life.

NPV

The disparity between the present worth of anticipated inflows of cash and the present worth of expected cash outflows is the net present value. NPV considers the time worth of money and gives a gauge of an investment's overall success over its entire existence. NPV can be compared to the net present value of other assets to determine which is more lucrative. The net current value, on the other hand, necessitates the application of a discount rate, which can be difficult to calculate.

IRR

The IRR is the rate of discounting at which the net present value of an investment equals zero. IRR assesses the performance of an investment over its entire life cycle. It takes into account the time value of money and assesses the overall earnings of the investment throughout its whole life (Aftab and Naveed, 2021). To identify which investment is more profitable, the internal rate of return can be compared to other assets. However, calculating the IRR can be challenging, and it may not provide a unique answer.

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Appendices

Appendix 1: The Payback Period

YEAR	CASH FLOW(£)	CUMULATIVE CASH FLOW(£)
0	-588,300	-588,300
1	190,900	-397,400
2	190,900	-206,500
3	190,900	-15,600
4	190,900	206,500
5	190,900	397,400
6	279,145	676,545

Figure 1: The payback period

(Source: MS Word)

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Appendix 2: The net present Value

YEAR	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	
Initial investment	(£588,300)							
Cash inflow		£223,600	£223,600	£223,600	£223,600	£223,600	£223,600	
Cash outflow		£ 32,700	£ 32,700	£ 32,700	£ 32,700	£ 32,700	£ 32,700	
Scrap value							£ 88,245	
Net cash flow	(£588,300)	£190,900	£190,900	£190,900	£190,900	£190,900	£279 145	
Discount factor 8%	1.00	0.926	0.857	0.794	0.735	0.681	0.630	
Present value	(£588,300)	£176,773.4	£163,601.3	£151,574.6	£140,311.5	£130,002.9	£175861.35	
Net present value								£349825.05

Figure 2: The net present value

(Source: MS Word)

Appendix 3: Internal Rate of Return

YEAR	YEAR 0	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	
Net cash flow	£588,300	£190,900	£190,900	£190,900	£190,900	£190,900	£279,145	
Discount factor 25%wq2	1.00	0.8	0.64	0.512	0.409	0.327	0.262	
Present value	£588,300	£152.720	£122,176	£97,740.8	£78,078.1	£62,424.3	£50,015.8	£-25,145

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