Institute of Incorporated Public Accountants

Final Admitting Examination

Module 14: Financial Management

August 2015

SOLUTIONS

Section A: All three questions to be attempted

Section A (70 marks in Total)

Question 1 Part (a)

6 marks for costs of the components of capital, 6 marks market value of the components of capital and 3 mark for WACC = 15 marks in total.

Calculate the cost of capital that they should use as a discount rate when appraising new marginal investment opportunities.

Costs of Capital

Cost of Equity (using CAPM) = Rf + [Ba x (Rm - Rf)]

Rf = 1.0%
Rm = 8.0%
Ba = 1.5

Cost of Equity (using CAPM) = 1% +[1.5 x(8% - 1%)]
= 1% +[1.5 x(7%)]
= 1% +[0.105]
= **11.50%**

The 10% irredeemable debentures:

The yield on this can be estimated solving for Kd in the following perpetuity formula: Po = I / Kd
Kd = the after tax cost of debt
Note: tax of 12.5% must be deducted from the interest payments.
i.e. interest is €5.00 per nominal €100, every six months
Hence after tax payment = €5.00 x (1-0.125) = €4.38 per nominal €100,

Po = I / Kd where: Po = € 95.0 and I = €4.38
=> Kd = I / Po = 4.375 / 95 = 4.61% semiannual = **9.21% annually**

Cost of preference shares

Its preference shares has a €10.00 nominal value
Dividend on the preference shares is 5%
Current market price of the preference shares is €8.00
Cost of preference shares is = Actual Dividend / current market price
= (5% x €10.00) / €8.00
= (€0.50) / €8.00
= 0.0625 = **6.25%**

Market Values of the Capital Structure

The market value of Equity

Current cum div share price	€28.00
Current numbers of shares	500,000
Expected dividend	€2,000,000
Expected dividend per share	€4.00
Current Ex div share price	€24.00
Current Equity Market value	**€12,000,000**

The market value of the irredeemable Debt

= the current market price, (ex interest) per bond x # of bonds issued

The 10% irredeemable debentures

= €95.00 x (€7,000,000 / 100) =

= €95.00 x (70,000) = **€6,650,000**

The market value of the Preference Shares

= the current market price, (ex div) per share x # of shares issued

= €8.00 x (5,000,000 / €10.00)

= €8.00 x (500,000)

= **€4,000,000**

In Summary	Cost	Market Value
Ordinary Shares	11.50%	€12,000,000
Irredeemable Debt	9.21%	€6,650,000
Preference Shares	6.25%	€4,000,000
		€22,650,000

Hence the WACC = Ke_g x {E / (E + D+PS)} + Kd x {D / (E + D+PS)}+ Kps x {PS / (E + D+PS)}

= 11.50% x (€12,000,000 / €22,650,000)

+ 9.21% x (€6,650,000 / €22,650,000)

+ 6.25% x (€4,000,000 / €22,650,000)

= 0.060927 + 0.027 + 0.011

= 0.099005 = **9.90%**

Alternatively	**After Tax Cost**	**Market Value**	**Number Issued**	**Total Value**	**Proportion**	**% Return**
Ordinary Shares	11.50%	€24.00	500,000	€12,000,000	53%	6.09%
Irredeemable Debt	9.21%	€95.00	70,000	€6,650,000	29%	2.70%
Preference Shares	6.25%	€8.00	500,000	€4,000,000	18%	1.10%
				€22,650,000	**100%**	**9.90%**

Question 1 Part (b)
Explain with the aid of diagrams if and/or how the proportion of debt and equity in a firm, i.e. its capital structure, affects its WACC.
6 marks for the discussion of the above and 4 marks for diagrams, 10 marks in total.

This question is important but unfortunately the answer is controversial!
It is important because we learn from traditional capital structure theory that if we minimise WACC we maximise stock price.

So does capital structure affects WACC?
The answer depends on what assumptions we make! If there are no

1) Corporate or personal taxes
2) Bankruptcy costs
3) Asymmetric information
4) Agency costs

Then WACC will not change as long as the overall risk of the firm does not change.

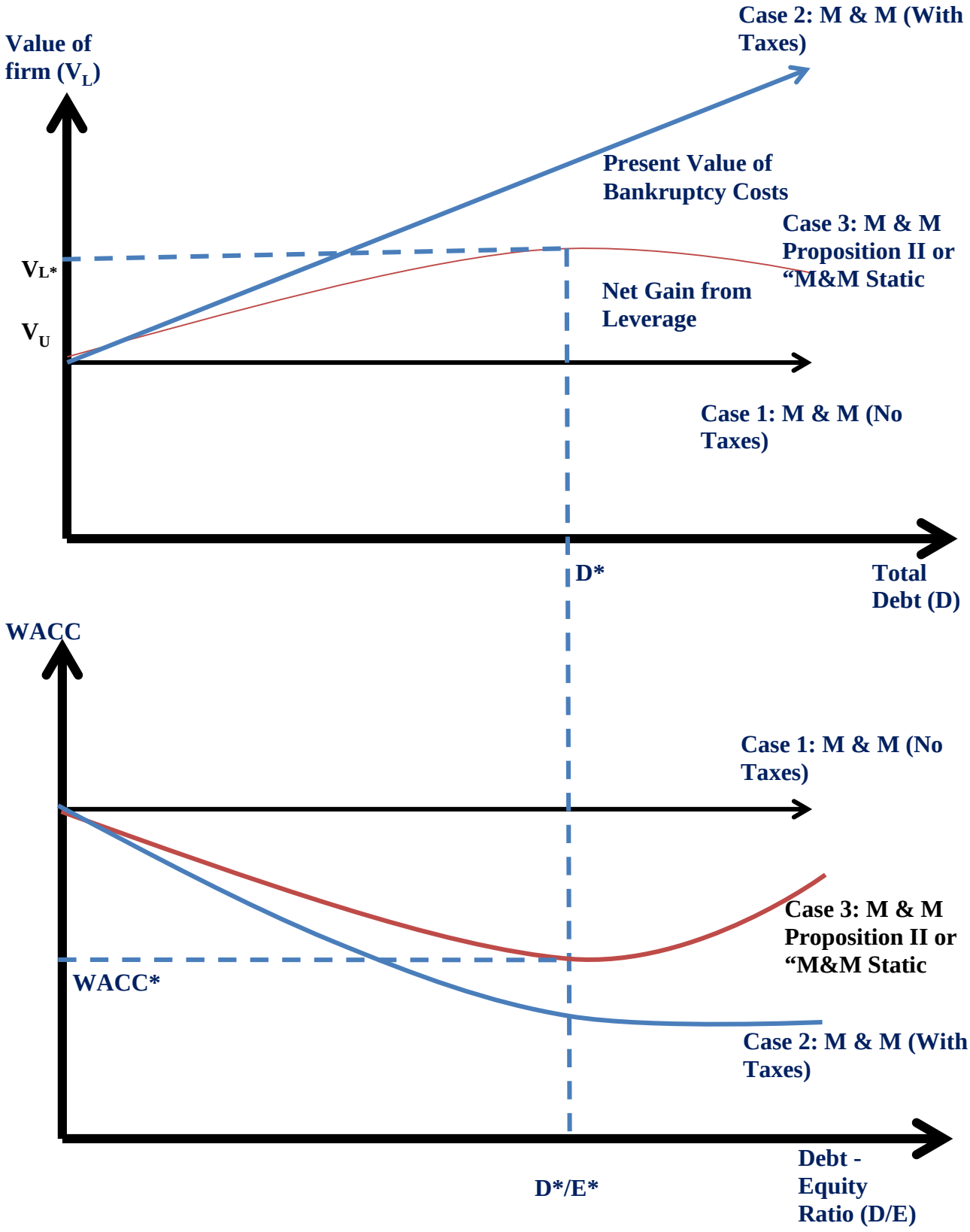
Given the above assumptions then as more cheap debt replaces increasingly more expensive equity, WACC will not change.
Hence capital structure will not matter {Modigliani and Miller Proposition I (No Taxes)}.
Thus M&M (1958) say that the value of a firm and its investment decisions should be independent of its capital structure. {See Case 1 below}

As taxes do exist:
And as interest payments can be deducted before taxes are charged, it appears that (in a risk-free world) it would be best to finance the firm with 100% debt! {Modigliani and Miller Proposition I (with Taxes) (1963)} {See Case 2 below}

And as bankruptcy risks also exist:
With more debt comes more financial leverage hence more financial risk and hence more risk of bankruptcy, known as Modigliani-Miller Proposition II or "M&M Static Theory"

Thus the trade-off: the tax-related benefits of leverage are offset by the debt's risk-related costs. After some point the cost of debt will increase hence the WACC will start to increase as more debt is added and hence the value of the firm will start to decrease.
Therefore, there is an optimal point of most value of the firm. {See Case 3 below}

Later theories also argue that leverage clearly can matter for a variety of reasons e.g. the effect of taxes, information and agency costs (e.g. Pecking Order theory, Jensen and Meckling 1976, Myers, 2001 etc.).


Case 2: M & M (With Taxes)
Value of firm (V_L)
Present Value of Bankruptcy Costs
Case 3: M & M Proposition II or "M&M Static
V_{L^*}
Net Gain from Leverage
V_U
Case 1: M & M (No Taxes)
D*
Total Debt (D)
WACC
Case 1: M & M (No Taxes)
Case 3: M & M Proposition II or "M&M Static
WACC*
Case 2: M & M (With Taxes)
D*/E*
Debt - Equity Ratio (D/E)

Question 2 Part (a)
2 marks for E(r) and St. Dev. and 2 marks for discussion = 4 marks in total

The weighted average expected return of the merged group.

HTL = A and WWL = B

$E(R_{Group}) = (X_A.r_A) + (X_B.r_B)$

Where: $X_A = .4$ and $X_B = .6$; $r_A = 9\%$ and $r_B = 12\%$

Thus $E(R_{Group}) = (0.4 \times 9) + (0.6 \times 12) = 3.6 + 7.2$ **= 10.8%**

The standard deviation of the merged group (= the total risk of the merged group)
$= \sigma_P = \sqrt{\{(X_A^2.\sigma_A^2) + (X_B^2.\sigma_B^2) + 2(X_A.X_B\rho_{AB}.\sigma_A.\sigma_B)\}}$

Where: $X_A = 0.4$ $X_B = 0.6$ $\sigma_A = 9$ $\sigma_B = 15$ and $\rho_{AB} = 0$

Thus $\sigma_P = \sqrt{\{((0.4)^2 \times 9^2) + ((0.6)^2 \times 15^2) + 2((0.4 \times 0.6 \times 0 \times 9 \times 15)\}}$ = **10**

Before the merger WWL has a return of 12% and a St. Dev. of 15
The merged group would have a return of 10.8% and a St. Dev. of 10
Thus the merged group has a lower risk but a lower return than WWL.
Therefore one cannot say unambiguously that the merged group is superior to WWL. But since the management of WWL would consider the merger a success if the groups expected return and risk was similar to what HTL enjoys now. The groups expected return is 10.8% which is higher than the expected return of HTL of 9% and the groups risk of 10% is lower than HTL's 11%), and thus it exceeds the expectations of WWL management and could be recommended to them.

Before the merger HTL has a return of 9% and a St. Dev. of 11
The merged group would have a return of 10.8% and a St. Dev. of 10
Thus the merged group has a higher return and a lower risk than HTL.
Therefore one can say unambiguously that the merged group is superior to HTL.
Therefore it meets the objectives of HTL and could be recommended to its management.

Question 2 Part (b)
3 marks for the E(r)'s and 2 marks for discussion = 5 marks in total

$\beta p = (X_A.\beta_A) + (X_B.\beta_B)$
$= (0.4 \times 1.1) + (0.6 \times 2) = 0.44 + 1.2 = 1.64$

CAPM: $E(R_{Group}) = rf + \beta p(E(rm) - rf)$
$= 1 + 1.64(8 - 1) = 0.5 + 1.64(7) = 1 + 11.48 = 12.48\%$

$E(R_{HTL}) = rf + \beta A(E(rm) - rf)$
$= 1 + 1.1(8 - 1) = 1 + 1.1(7) = 1 + 7.7 = 8.7\%.$

$E(R_{WWL}) = rf + \beta B(E(rm) - rf)$
$= 1 + 2(8 - 1) = 1 + 2(7) = 1 + 14 = 15.0\%$

Using the CAPM the merged group would have an expected return of 12.48% and a beta of 1.64
Using the CAPM before the merger HTL has an expected return of 8.7% and a beta of 1.1.
Using the CAPM before the merger WWL has an expected return of 15.0% and a beta of 2

Unlike using the standard deviation to calculate risk, with the CAPM the group beta is a simple weighted average of the individual betas. Hence there is no "benefit" to diversification as investors are assumed diversified anyway.

With the merger, shareholders in HTL will trade a higher return (12.48 instead of 8.7) for a higher risk (1.64 instead of 1.1). So we cannot say unambiguously whether the merger is beneficial or not to HTL.

With the merger, shareholders in WWL will trade off a lower return (12.48 instead of 15.0) for lower risk (1.64 instead of 2). So similarly for WWL, we cannot say unambiguously whether the merger is beneficial or not.

Question 2 Part (c)
4 marks for discussion and 6 marks for diagram = 10 marks in total

For HTL, CAPM would expect $E(R_{HTL}) = 8.7\%$. But the expected return for HTL = 9%

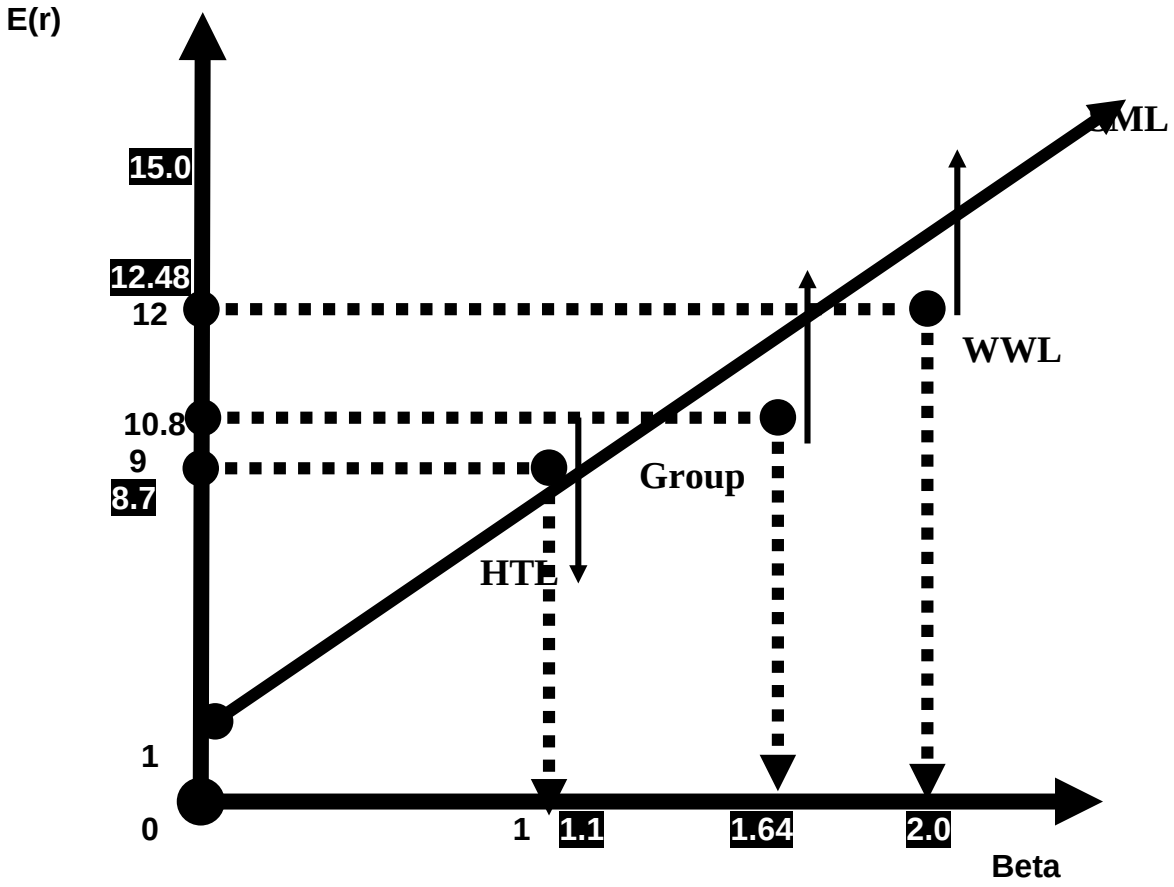
Using beta as a measure of risk, the return HTL is receiving is too high. HTL has an expected return of 9% but given their risk CAPM would expect a return of 8.7%. Hence according to CAPM it is undervalued. If CAPM holds in the long run, HTL's price should rise and its return should fall.

For WWL, CAPM would expect $E(R_{WWL}) = 15.0\%$. But expected return for WWL = 12%

Using beta as a measure of risk, the return WWL are receiving is too low. Hence according to CAPM it is overvalued. If CAPM holds in the long run, WWL's price will fall and therefore its return should rise.

For the Group, CAPM would expect $E(R_{Group}) = 12.48\%$. But expected return for the Group = 10.8%

Using beta as a measure of risk, the return in the combined group is too low. The combined group has an expected return of 10.8% but given its risk CAPM would expect a return of 12.48%. Hence according to CAPM the combined group is overvalued. If CAPM holds in the long run, the combined group's price should fall and its return should rise.


E(r)
15.0
12.48
12
10.8
9
8.7
1
0
1
1.1
1.64
2.0
Beta
SML
WWL
Group
HTE

Question 2 Part (d)
6 Marks for Compare and contrast = 6 Marks in Total.

Compare and contrast the main differences to achieving a listing on the Enterprise Securities Market (ESM) compared to the Main Securities Market (MSM) of the Irish Stock Exchange (ISE).

According to the ISE the main differences to achieving a listing on the Enterprise Securities Market (ESM) compared to the Main Securities Market (MSM) of the Irish Stock Exchange (ISE) include:

Enterprise Securities Market	**Main Securities Market**
No specific admission criteria other than the requirement for an applicant to have a minimum market capitalization of €5 million.	Detailed conditions for listing required.
No trading record required.	Normally, a 3 year trading record is required.
No minimum number of shares to be held in public hands.	Minimum of 25% of shares to be held in public hands.
No pre-vetting of ESM admission documents by the ISE.	Pre-vetting of listing particulars by the ISE prior to circulation.
In most instances, no prior shareholder approval of substantial acquisitions and disposals.	Prior shareholder approval required for substantial acquisitions and disposals

Question 3 Part (a)
1 mark for initial calculations, 6 marks for lodgement cost calculations and 1 mark for recommendation = 8 marks in all.

Daily sales = Weekly sales / 5 = €60,000 / 5 = €12,000
Each day's lost interest costs (12% / 364) x €12,000 = €3.96

Days interest lost due to alternative lodging strategy

			Mon & Thurs	Friday Only	Tues & Friday	Daily
1	Monday	€12,000	0	4	1	0
2	Tuesday	€12,000	2	3	0	0
3	Wednesday	€12,000	1	2	2	0
4	Thursday	€12,000	0	1	1	0
5	Friday	€12,000	3	0	0	0
6	Saturday	no lodgement				
7	Sunday	no lodgement				
Total No of days lost interest =			6	10	4	0
Number of Lodgements =			2	1	2	5
Annual cost in interest *=			€1,234.29	€2,057.14	€822.86	€0
Annual lodging costs **=			€3,120.00	€1,560.00	€3,120.00	€7,800
Total annual cost =			**€4,354.29**	**€3,617.14**	**€3,942.86**	**€7,800**

Summary
Based solely on costs the best choice is option 2, which is to lodge on Friday only.
The total annual cost will be €3,617.14

*= Cost per day x 5 x 52
**= No of Lodgements per week x €30 x 52

Question 3 Part b)
5 marks each for sections (i) and (ii) and 2 marks for section (iii) = 12 marks in all.

bi) Only avail of the collection service, average collection period falls to 8 weeks.

Currrent annual average dedbtors =
= *(Current collection period / days in year) x Annual sales*
= *(12 weeks / 364) x €3,120,000* = €720,000

New annual average dedbtors
= *(New collection period / days in year) x Annual sales*
= (8 weeks / 364) x €3,120,000 = €480,000
Reduction in annual average debtors = **€240,000**

Factoring Charge (2% of Annual sales)	€62,400
less Expenses saved	-€40,000
Net Charge	**€22,400**

Cost as a % of funds advanced €22,400 / €240,000 = 0.0933 **= 9.33%**

bii) The average collection period falls to 8 weeks and RJ's use the finance facilities.

Funds advanced
= (New collection period / days in year) x Annual sales
= (8 weeks / 364) x €3,120,000 = €480,000

% Advanced	75%	
Gross funds advanced		€360,000
Less		
Commission of 1%	-€3,600	
Interest on amount advanced	-€3,323	
		-€6,923
Plus reduction in annual average debtors =		€240,000
Net funds advanced		€593,077

Annual costs

Service charge (from (bi) above	€22,400
Annual Commission	€23,660
= *Commission of 1% x (364/56)*	
Annual Interest	€21,600
= *Interest on amount advanced x (364/56)*	
Total net annual factoring costs =	€67,660

Cost as a % of funds advanced = €67,660 / €593,077 = 0.1141 **= 11.41%**

biii) As RJ's can borrow on overdraft at 12% p.a. while the collection service costs as a percentage of funds improvement 9.33% they should use the collection service of the factor. As the cost of finance advanced as a percentage of funds improvement is 11.41% it should also be used. This is atypical, as usually the costs of funds advanced by a factor are more expensive than regular bank finance and would only be used where difficulties exist in raising regular bank finance.

Section B
Question 4 Part (a):
The important direct and indirect costs of bankruptcy

3 marks for explaining the important direct and 2 marks the indirect costs of bankruptcy, 5 marks in all.

Direct costs of bankruptcy are out-of-pocket cash expenses directly related to bankruptcy filing and administration. Empirical research indicates that direct costs are much too small, relative to the pre-bankruptcy market value of large firms, to truly discourage the use of debt financing.

Indirect bankruptcy costs are economic losses that result from bankruptcy but are not cash outlays spent on the process itself.

Indirect bankruptcy costs are inherently difficult to measure but empirical research clearly suggests they are significant—significant enough, in many cases, to lessen the incentive for corporate managers to employ financial leverage.

Question 4 Part (b)
The term structure of interest rates and the Normal, Flat and the Inverse Yield Curves.

0.5 marks for showing understanding of a yield curve and 1.5 mark each for explaining the 3 curves, 5 marks in all.

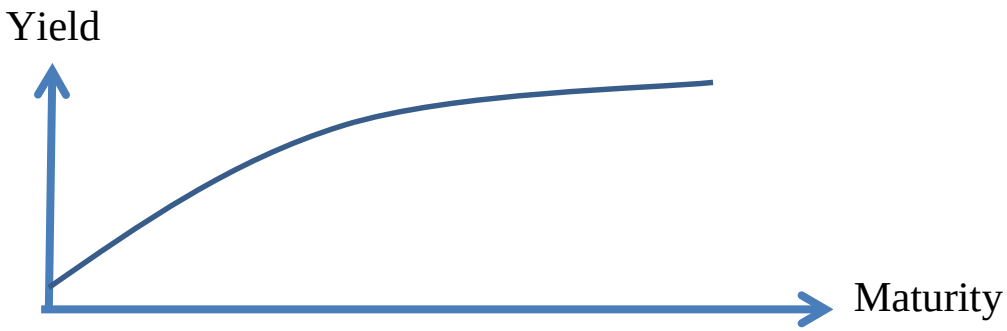
The term structure of interest rates, also known as the yield curve, is a very common bond valuation method. Constructed by graphing the yield to maturities and the respective maturity dates of benchmark fixed-income securities, the yield curve is a measure of the market's expectations of future interest rates given the current market conditions. Bonds, issued by governments with stable finances, are considered risk-free, and as such, their yields are often used as the benchmarks for fixed-income securities with the same maturities. The term structure of interest rates is graphed as though each coupon payment of a non-callable fixed-income security were a zero-coupon bond that “matures” on the coupon payment date. The exact shape of the curve can be different at any point in time. So if the normal yield curve changes shape, it tells investors that they may need to change their outlook on the economy.

There are three main patterns created by the term structure of interest rates:

1) Normal Yield Curve: As its name indicates, this is the yield curve shape that forms during normal market conditions, wherein investors generally believe that there will be no significant changes in the economy, such as in inflation rates, and that the economy will continue to grow at a normal rate. During such conditions, investors expect higher yields for fixed income instruments with long-term maturities that occur farther into the future. In other words, the market expects long-term fixed income securities to offer higher yields than short-term fixed income securities. This is a

normal expectation of the market because short-term instruments generally hold less risk than long-term instruments; the farther into the future the bond's maturity, the more time and, therefore, uncertainty the bondholder faces before being paid back the principal. To invest in one instrument for a longer period of time, an investor needs to be compensated for undertaking the additional risk.

As general current interest rates increase, the price of a bond will decrease and its yield will increase.

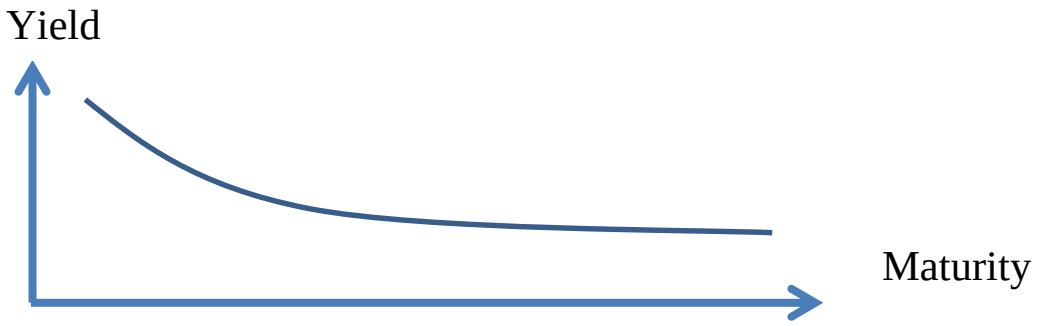


2) Flat Yield Curve: These curves indicate that the market environment is sending mixed signals to investors, who are interpreting interest rate movements in various ways. During such an environment, it is difficult for the market to determine whether interest rates will move significantly in either direction farther into the future. A flat yield curve usually occurs when the market is making a transition that emits different but simultaneous indications of what interest rates will do. In other words, there may be some signals that short-term interest rates will rise and other signals that long-term interest rates will fall. This condition will create a curve that is flatter than its normal positive slope. When the yield curve is flat, investors can maximize their risk/return trade-off by choosing fixed-income securities with the least risk, or highest credit quality. In the rare instances wherein long-term interest rates decline, a flat curve can sometimes lead to an inverted curve.

3) Inverted Yield Curve: These yield curves are rare, and they form during extraordinary market conditions wherein the expectations of investors are completely the inverse of those demonstrated by the normal yield curve. In such abnormal market environments, bonds with maturity dates further into the future are expected to offer lower yields than bonds with shorter maturities. The inverted yield curve

indicates that the market currently expects interest rates to decline as time moves farther into the future, which in turn means the market expects yields of long-term bonds to decline. Remember, also, that as interest rates decrease, bond prices increase and yields decline.

You may be wondering why investors would choose to purchase long-term fixed-income investments when there is an inverted yield curve, which indicates that investors expect to receive less compensation for taking on more risk. Some investors, however, interpret an inverted curve as an indication that the economy will soon experience a slowdown, which causes future interest rates to give even lower yields. Before a slowdown, it is better to lock money into long-term investments at present prevailing yields, because future yields will be even lower.



Question 4 Part c)
5 marks for discussing the pecking order for financing, 5 marks in all.

Finance theory would suggest that a firm should aim to maximise shareholder wealth. It can do this by choosing a debt-equity mix that minimises its WACC and taking on all positive NPV projects. As debt is generally cheaper than equity, there should be a preference towards debt in the capital structure. Yet as retained earnings are simply a form of equity, why in reality does the proportion of equity in the form of retained earnings in the capital structure seem so high? Similarly it has been observed that firms that seek to increase the amount of debt in the capital structure often see a rise in the value of the firm in the stock market. The pecking order for financing argument tries to explain this.

The pecking order for financing argument explains why profitable companies that do not need external finance only borrow a little. They are simply not looking at optimal debt equity ratios. They can use their retained earnings to fund all potential growth opportunities without recourse to the capital markets.

The pecking order for financing argument is that managers do not try to reach the theoretical optimal capital structure. They prefer to use internally generated undistributed profits than go to external sources of finance. Managers seek to use internally generated funds first because this avoids the time consuming and burdensome task of seeking external finance. Unfortunately it also however avoids the discipline involved in justifying why an external investor should lend or invest in the firm.

Only if a firm needs more funds than are available from retained earnings for potentially profitable investments, will it go to the capital markets.

According to the pecking order for financing argument because debt is first in the pecking order of externally raised finance the firm will only go to the stock market to raise fresh equity finance as a last resort. Thus internally generated equity is at the top of the pecking order and externally generated equity at the bottom.

Managers and others have suggested that choosing to issue new shares is a last resort because of the negative "signalling" effect. The argument is that due to asymmetric information, the stock market will feel that a new equity issue is a signal that managers know the shares are overvalued. Hence a new shares issue could be a danger signal that the firm is or will be in trouble. The market might suspect that management is trying to bolster the firm's capital structure in advance of bad news ahead.

Again according to the pecking order for financing argument managers choose External debt over external equity because obtaining external debt is cheaper, it is quicker to obtain, it requires less information to be publicly released and debt is less burdensome on management to obtain than issuing new shares on the stock market.

Finally issuing new ordinary shares is more expensive than issuing new debt capital, which in turn is more expensive than simply using retained earnings. The costs of new issues of debt and rights issues of shares can be very expensive, whereas retained earnings are available without issuing costs.

Question 4 Part d)
Explain the difference between sensitivity analysis and scenario analysis.

5 marks for explaining differences, 5 marks in all.

Sensitivity analysis looks at how changes in a single variable affect a project's profitability or NPV. For example, in Alpha's case between case (b) and case (c) we allowed sales to change but kept all other factors constant, (or at least no change in their proportions).

Scenario analysis looks at how several changes occurring simultaneously affect a project's profitability or NPV. In Alpha's case we could have allowed both sales and interest rates to change as the proportion of debt in the capital structure increased for example.

Scenario analysis is probably more realistic because certain key variables in a project's profitability or NPV calculation are correlated. For example, as sales increase we may need to change costs and expenses as a percentage of sales. This limitation of sensitivity analysis that you can only change one variable at a time is its biggest drawback. Scenario analysis, while it can be more involved and may require more computing power, allows for changes in multiple variables simultaneously.

Question 4 Part e)

The factors that influence how a company will finance a takeover; using shares, cash or a combination of both.

5 marks for discussing the factors, 5 marks in all.

• The tax position of the target company's shareholders. If they are tax exempt they may prefer a cash offer, as they will not incur capital gains tax. If they are liable for capital gains, they may prefer a share-for-share offer. If there is a range of investor's indifferent tax paying positions, a mixed bid may be more appropriate.

• The bidding company's level of liquidity and its ability to borrow more funds will determine whether it will be able to find sufficient funds in order to make a cash offer. If it is short of liquidity and is already highly geared, a cash offer may be out of the question.

• The bidding company's share price will also be a major factor. If it is relatively high compared to the target company's share price, the bidding company will be able to make a share-for-share offer with fewer shares, therefore, reducing any potential dilution of EPS and control for the existing shareholders.

• The combined preferences of both bidding company and Target Company shareholders are also very important. The shareholders of the bidding company many not want it to borrow in order to make a cash offer because this may increase the financial risk beyond a level they are prepared to tolerate. A cash offer may be unattractive to target company shareholders because they no longer have a participating interest in the company that they originally bought share.

Question 4 Part (f): Important factors that will affect the ability of an entrepreneur to raise capital for a new business from external sources of finance.

5 marks for explaining the important factors, 5 marks in all.

It is usually not an easy task to raise capital for new business.

Financial projections in the business plan
There is no doubt that an effective business plan is needed to successfully raise capital. Included in a business plan should be a financial worksheet which outlines all the various categories of costs that can accrue monthly. By using a financial worksheet, the new business owner can provide lenders and investors three very important financial measures in order to raise capital - the income statement, cash flow statement, and balance sheet. The income statement is probably the most

important component of the three to raise capital. It includes a projected cost report, which provides projected revenues and the expected income for the new business owner in the next 3 to 5 years. Providing such financial predictions will enable the new business owner will gain credibility from their financial lenders. It also gives them an assertive edge to raise capital from additional sources.

Professionalism

Whether an entrepreneur decides to raise capital from traditional bank loans or from angel investors, new business owners will first have to impress them with their business plan. New business owners should be aware that despite the possibility of multiple rejections, they must not be discouraged and always keep a positive, professional attitude. If an entrepreneur strongly believes in their project, then they will seek any and all means to raise capital. If an investor or financial lender sees potential in an entrepreneur's new business ideas, then they will strongly consider the opportunity to enable the new business owner to raise capital and provide funding for their new business endeavour.

Good credit vs. bad credit

Credit rating has become a very significant component when a new business owner decides to raise capital. This policy holds true for every financial lender: the higher the credit score, the lower the interest rates. If a new business owner has bad credit ratings, then they will most likely not be able to effectively raise capital since there is a high probability that their loan application will be denied. The entrepreneurs that seek to raise capital for their new business in large amounts and are planning to borrow this money from a bank should try to monitor their credit score and fix their credit history beforehand so that they can get new business loans at favourable rates. There is no doubt that a high credit score is a vital component to raise capital for a new business.

There are multiple credit rating agencies that diligently analyse the new business owner's credit score before granting capital. For a new business to effectively raise capital, the new business owner must have a good credit rating.

The credit score agencies can determine the credit ratings of an entrepreneur by collecting information on the new business and analysing the details, such as the borrower's current income level, payment and debt history, and other important financial facts that may be useful in the process to raise capital.

After credit agencies obtain a detailed report on the borrower, this information is sold to loan providing organisations, which further determine the amount of capital to be allocated. Whether an entrepreneur is seeking funding from a private investor or lending institution, their credit history will be investigated before they are able to raise capital for their new business.

Question 5 Part (a)
Contrast (i) the irrelevancy argument; (ii) the bird in the hand theory and (iii) the tax differential theory in the dividend policy debate.
3 marks for each explaining dividend theory, 9 marks in all.

The irrelevancy argument in perfect capital markets:
The value of a firm is determined by the earning power of its assets and not in how these earnings are distributed.
You can slice a cake into many pieces but it doesn't change the size of the cake.

The bird in the hand theory:
Investors prefer to receive dividends now (a bird in the hand), instead of having company earnings invested in the firm in the expectation of future capital gains (two in the bush). Dividends are in the hand while capital gains are in the bush.

High pay-out ratios reduce risk and therefore reduce the cost of equity
- this is crucial difference to MM
Consequently, companies with high pay-out ratios will be more popular and will therefore have higher share prices and higher company valuations.

Tax differential theory:
Irish tax laws are such that tax rates on dividend income are higher than the tax rates on capital gains.
Shareholders should prefer capital gains to dividends because most investors would have unused capital gains allowances, while our personal allowances are usually used up. Capital Gains tax 33%, Marginal rate of income tax inc. USC 52%

Question 5 Part (b)
Why might a firm engage in a share buyback and what are the advantages and disadvantages of doing so?
4 marks for why and advantages and 2 marks for disadvantages, 6 marks in all.

A company can pay cash to its shareholders in either of two ways - cash dividend or a share repurchase. A company that has a large amount of unwanted cash will see its debt:equity ratio change in favour of high cost equity. This increases the overall cost of capital.

To avoid this, the company will give back this cash to its shareholders by buying back some of their shares. This is a share repurchase. Shares that are bought back from shareholders are held as treasury shares.

Arguments in favour of a share buy-back:
A share repurchase may act as a signal to the market that the shares are undervalued.
A buy-back may also be seen as an indication by management that it is not prepared to use shareholders' money on wasteful investments.
There may be an excess supply of shares on the market, so a share repurchase can keep the share price solid.
A share buy-back is treated as a capital gain by the individual shareholder rather than higher-taxed dividends

As an alternative to distributing cash as dividends
To dispose of one-time cash from an asset sale
To make a large capital structure change.
Stockholders can tender or not
Helps avoid setting a high dividend that cannot be maintained
Repurchased stock can be used in take-overs or resold to raise cash as needed

Disadvantages of a share buy-back:
May be viewed as a negative signal (firm has poor investment opportunities)
Tax authorities could impose penalties if repurchases were primarily to avoid taxes on dividends
Selling stockholders may not be well informed, hence be treated unfairly
Firm may have to bid up price to complete purchase, thus paying too much for its own stock

Question 6 Part (a)

Other than profit maximisation list FOUR examples of financial targets and FOUR examples of non financial targets and explain why even if they result in less short term profits they can still help to meet the primary financial objective which is to maximise shareholder wealth.

0.5 marks for each of the eight targets, 2 marks for why they can still result in Max shareholder wealth, 6 marks in all.

Financial targets - examples:

- Profit maximisation
- Operating Profit
- Profit Retention
- EPS
- Dividend Per Share (DPS)
- Dividend cover (say not to be less than 2 times)
- Restriction on gearing (proportion of borrowing to total capital employed)
- Net profit margin %... Say target 10%

Non Financial targets - examples:

- Employee welfare
- Management welfare (agency problem?)
- Provision of a service (say Eircom/ Bord Gas)
- Fulfilment of resp towards customers..fair
- Fulfilment of resp towards suppliers
- Welfare of society…pollution

Shareholder value is maximised by generating cash flow and not necessarily maximising profits. ..Long Term View therefore should be concerned with. Ability to generate cash flows both now and in the future. ‘Cash is king.’ The ‘timing’ of cash flows - enhance shareholder value. Investors will pay more for shares that are less risky.

Problems with profit maximization as a goal:
Does not account for timing of returns
Profits - not necessarily cash flows
Ignores risk

Maximize shareholder wealth:

– Maximize shares price, not profits
– Accounts for risk
– As “residual claimants” shareholders have better incentives to force management to maximize firm value than do other stakeholders

Question 6 Part (b)

If markets are efficient as predicted by the Efficient Markey Hypothesis what will be the expected effects on share price in the run up and following the announcement of a profit warning? In your answer distinguish between the three forms of efficiency.

1.5 marks for EMH and expected effects, 1 mark for each form, 4.5 marks in all.

The efficient market hypothesis is the theory that the stock market reacts immediately to all the information that is available. The efficient market hypothesis is concerned with establishing the prices of capital market securities.

Market efficiency refers to both the speed and the quality of the price adjustment to new information

The features of an efficient market are:
Prices reflect all relevant information
No individual dominates market
Transaction costs insignificant

The testing of markets for efficiency has led to the recognition of 3 different levels/forms of market efficiency.
There are three forms of efficiency:
Weak-form efficiency suggests prices reflect all relevant information about past price movements and their implications (cannot be predicted through technical analysis).

Thus if markets are Weak-form efficient as predicted by the Efficient Markey Hypothesis there would be no expected effects on share price in the run up but the share price would fall following the announcement of a profit warning

Semi strong-form efficiency suggests prices are also influenced by publicly available knowledge

Thus if markets are Semi strong form efficient as predicted by the Efficient Markey Hypothesis there would be no expected effects on share price in the run up but the share price would fall following the announcement of a profit warning

Strong-form efficiency suggests prices are also influenced by inside information.
Thus if markets are strong-form efficient as predicted by the Efficient Markey Hypothesis there would be an expected fall in share price in the run up and a smaller share price fall following the announcement of a profit warning

Question 6 Part (c)

Outline a different hedging technique that you feel would be appropriate to reduce each of the following uncertainties and explain your choice:

0.5 marks for each hedging technique, 1 mark for explaining choice, 1.5 marks in all.

(i) An adverse movement in the exchange rate for an importer who buys goods on credit in a foreign currency.

There is more than one possible answer here but since the size and timing of the foreign currency requirement is known then a forward or future could be used.

(ii) An exporter who must issue a price list in a foreign currency that is 'live' for the next three months but is unsure if foreign customers will make an order and if they do is unsure how much they will order and hence does not know how much foreign exchange risk, if any, they will need to cover and when!

0.5 marks for each hedging technique, 1 mark for explaining choice, 1.5 marks in all.

Since neither the size nor the timing of the foreign currency requirement is known then a currency option could be used. Should the exporter use a forward or future they are locking in a speculative risk that they will have the foreign currency. With an option they must pay a premium but if sales are less than expected they might make a speculative gain with the option or they can let it lapse.

(iii) Will obtain a large amount of foreign currency in three months time that will be required three months later and hence the treasurer has decided not to convert back to local currency but to put on deposit in the foreign currency but is unsure what rate of interest they will receive on the deposit.

0.5 marks for each hedging technique, 1 mark for explaining choice, 1.5 marks in all.

The treasurer could take out a Forward rate agreement. These are like OTC bespoke futures contracts between the company and their bank. The parties agree to pay/receive interest on a specified sum on a set date. The principal loan is a separate contract. Only the difference between the agreed rates and market rates is paid to or received from the bank.