**SOLUTIONS TO 2015 FINANCIAL MARKETS 1**

**QUESTION 1**

1. Since we are about to pay the dividend we will assume that the share is currently cum div. hence since we need the ex-div value, we must use the given expression V **ex-div = V cum Div – do (2 marks)**

To calculate the Ex – Div price as

V ex-div = MK23.00 – MK1.00 = MK22.00 (2 marks)

Then using the formula for the cost of equity

Ke = do (1 +g) + g (2 marks)

V ex-div

=MK1 x 1.1 + 0.10 (2 marks)

MK22

=0.05 + 0.10 (2 marks)

=0.15 or 15% (1 mark)

1. A new issue of shares might be made in a variety of different circumstances:

* The company might wish to raise for cash, i.e. for expansion of its operations
* It might wish to obtain a listing on the stock exchange
* The company might wish to issue new shares to the shareholders of another company in order to take it over

**QUESTION 2**

1. Hedging transaction exposure by a forward contract is achieved by selling or buying foreign currency receivables or payables forward. On the other hand, money market hedge is achieved by borrowing or lending the present value of foreign currency receivables or payables, thereby creating offsetting foreign currency positions. If the interest rate parity is holding, the two hedging methods are equivalent.
2. i. Expected gain($) = 10,000,000{(1/1.50)-(1/1.43)}

= 10,000,000(.6667-.6993)

= -$326,000.

ii. There is no easy answer here. Hedging is expected to reduce the dollar receipt by $326,000. If I were willing to sacrifice $326,000 or more to eliminate exchange risk, I would hedge. Otherwise, I would not. It depends on the degree of my risk aversion

iii. Since I eliminate risk without sacrificing dollar receipt, I would be more likely to hedge.

**QUESTION 3**

1. Liquidity management including cash begins the portfolio mgt activities of financial institutions. Liquidity risk arises for two reasons-a liability side reason and an asset side

The liability side reason arises whenever a financial institution’s liability such as depositors or insurance policyholders seeks to cash in their financial claims immediately. When the liability holders demand cash by withdrawing deposits there is need for the financial institution to borrow additional funds or sell of assets to meet the withdrawal.

The second source of liquidity risk arises on the asset side as a result of lending commitments. A loan commitment allow as a borrower to take down funds from a financial institution on demand. When a loan commitment is taken down the financial institution has to fund it on the balance sheet immediately. This creates a demand for liquidity. As with liability withdrawals and financial institution can meet such liquidity need either by running down its cash assets, selling off other liquid assets or borrowing additional funds.

In reality depository institutions know that in normal times only a small proportion of depositors withdraw funds from their accounts or put their account claims back to the bank on any given day. Normally most demand deposits act as core deposits on a day by day basis. Core deposits are those deposits that provide a bank with a long term funding source. Deposit drains are the amount by which cash withdrawals exceed additions, net cash flows.

1. The investor must be compensated for trying up his money in the asset for a longer period of time and secondly there is greater risk in lending long term than short term. To compensate the investors for this risk they might require a higher yield on longer dated investments.

**QUESTION 4**

1. Well in any organization there needs to be a mix of financing sources, so even though you will choose debt over equity, in some instances to satisfy some interest parties’ equity must be used. So there lies your answer. There is no text book answer. it is more practical.   
     
     
   The major reasons are:

* Though debt is cheaper it is more risky. Because there is an obligation to pay back the interest on debt and debt amount irrespective of making profit or loss. But dividends to the equity shareholders will be distributed only if company makes profit.
* Raising huge capital is not possible only by going for debt.
* By going to equity not only firms raise huge amount of capital in a short period but also they can spread the risk of doing business.
* Equities are expensive because the expectation of shareholders is more as they are taking more risk.
* The market value of the equity rises if the business does well and has a robust future outlook. This leads to the promoter holding also multiplying in value though it is notional to a great extent. In times of need the promoter can sell part stake in the business by offloading 5-10% equity to raise cash. The same cant be said about debt.

1. Fisher effect is the relationship between real and nominal returns. It was done by an economist Irvin Fisher. Because investors are ultimately concerned with what they can buy with their money, they require compensation for inflation rate.

Let R stand for nominal rate and r rate stand for the real rate. The fisher effect tells us that the relationship between nominal rates, real rates and inflation can be written as follows:

1 + R = (1 + r) X (1 + h)

Where h is the inflation rate.

Working:

1 + 0.1750 = (1 + r) X (1 + 0.0880)

1 + R = 1.1750/1.0880

R = (1.1750/1.0880) – 1

R = 7.99% or 8.00% approx. round digit

**SECTION B**

**QUESTION 5**

1. Forward exchange contract is a binding contract between a bank and its customer for the purchase or sale of a specified quantity of stated foreign currency at a rate of exchange fixed at the time the contract is made for the performance (delivery of the currency and payment for it) at a future time which is agreed upon when making the contract. This future time will be either a specified date or any time between two specified dates.
2. An importer might find that:
3. His supplier fails to deliver the goods as specified so the importer will not accept the goods delivered and will not agree to pay for them
4. The supplier sends fewer goods than expected, perhaps because of supply shortages and so the importer has less to pay for
5. The supplier is late with the delivery and so the importer does not have to pay for the goods until later than expected

An exporter might find the same types of situation, but in reverse, so that he does not receive any payment at all, or he receives more or less than originally expected, or he receives the expected amount but only after some delay.

1. The bank will sell Tuntufye $96,000 to fulfill the original forward contract. The six months forward rate on 1 Jan was as follows:

Spot rate 1.5145

Less premium 0.0095

Forward rate 1.5050

The bank will buy back the unwanted $46,000 at the spot rate on 1 July, thus closing out the contract

Sale of $96,000 at $1.5050 63,787.38

Purchase of $46,000 @ 1.5110 30,443.41

33,343.97

1. If the customer has arranged for the bank to buy currency but then cannot deliver the currency for the bank to buy the bank will sell currency to the customer at the spot rate when the contract falls due for performance, buy the currency back under the terms of the forward exchange contract.

If the customer has contracted for the bank to sell him currency the bank will sell the customer the specified amount of currency at the forward exchange rate, buy back the unwanted currency at the spot rate.

**Question 6**

1. **Commercial paper (CP)** is a short-term debt instrument issued only by large, well known, creditworthy companies and is typically unsecured. The aim of its issuance is to provide liquidity or finance company’s investments, e.g. in inventory and accounts receivable. The **major issuers** of commercial papers are financial institutions, such as finance companies, bank holding companies, and insurance companies. Financial companies tend to use CPs as a regular source of finance. Non-financial companies tend to issue CPs on an irregular basis to meet special financing needs.

Withthe rising need of finance for the company as it plans to grow by 40% in the next 2 years it is inevitable that it will need financing to support growth. Currently the company is paying low interest rates for its line of credit as it is less than the prevailing commercial paper interest rate of highly rated companies. CPs can act a short term finance supplement for the company. It all also depends on how quickly the company needs to grow and hence the cost of finance might also rise.

With the current focus that the RBM wants to keep the inflation rate low this may signal low rates in the economy and hence CP would tend to be a cheaper source of financing as its rates is pegged to ruling rates in the market and changes due to repricing

1. Due to cash requirements to pay off suppliers it would be proper for the company to first of all look into how much its government securities are fetching with regard to the prevailing interest rates on the secondary market. If govt securities were bought at a yield higher than what it would cost if there are other options, say issuing a CP, then they need not be sold but incase the yields are low then the company should consider selling them off. Another option is to use govt securities as security in obtaining a short-term finance form the financial institution. A company may also think of extending credit term facilities with the suppliers so as to enjoy the free cost finance while waiting for maturities from govt securities BUT while still keeping in mind that suppliers drive the business and hence owner their debt.
2. It is evident that interest rates that the company is paying are way below the prevailing commercial paper interest rate of highly rated companies and this a company need to take advantage of. This is advantageous to the company and it would reduce the cost of borrowing in the short term. With their view of growth in the next 2 years the company need to think ahead and try taking advantage if it is perceived that interest rates will fall then it has to go short. This is evident in the company as inflation reduction shall signal low rates and hence go short and take advantage of the scenario.
3. Each of the method of financing has its own prons and cons and hence the company should seriously look into the best source of financing that best suits its line of business. CP will provide a cheap source but it has its own implications as the rates will fluctuate and this may affect the cost of financing. Selling off govt securities might mean a company will be limited to collateral if it already has some loans with other financial institutions and also this would mean that the company will have no short term investments to support its liquidity needs.

Currently the company will have to take advantage of low interest rates in its line of credit as it is much better off than commercial paper rates at market. If the anticipated change in the economic situation does not materialize then it would turn out that CPs provide the cheaper option of financing.

All in all, each and every option has its own advantages and disadvantages depending on timing, pricing and ease of accessibility to finance.

**QUESTION 7**

1. a share of a common stock is more difficult to value in practice than a bond in the following ways:

-with a common stock not even the promised cash flows are known in advance

-the life of the investment is essentially forever since common stock has no maturity

-there is no way to easily observe the rate of return that the market requires

1. Po = do (1+g)

r-g

i. Predicted share value (return of 16%) = 9,000,000 X 1.06

(0.16 – 0.06)

=$95,400,000.00

ii. Predicted share value (return of 19%) = 9,000,000 X 1.06

(0.19 – 0.06)

=$73,384,615.38

Therefore, the value of the company’s shares would fall by $22,015,384.62 (95,400,000-73,384,615.38)

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**QUESTION 8**

1. Financial intermediaries act as a conduit between the net savers and those with cash deficiency. The following are functions of financial intermediaries:
2. They create liquidity through the aggregating small amounts of funds for on lending in larger parcels
3. The intermediaries invest in a diverse portfolio of primary securities and as such can achieve diversification of risk which is more difficult to achieve in the case of an individual
4. By providing liquidity and reducing risk financial intermediaries are able to tap savings that would otherwise not have been available.
5. By facilitating the availability of finance these institutions ease the constraint of income on expenditure, thereby enabling the consumer to spend in anticipation of income and the entrepreneur to acquire physical capital.
6. Financial intermediaries help to ensure that the flow of funds is allocated in the most efficient manner.

Government benefits from such kind of financial relationship in that it gets tax levies and it also serves as the major borrower in respect of T/bills and Bonds through RBM.

Businesses tend to benefit as intermediaries pool funds together which in turn businesses borrow to use in the operational issues. Also, businesses find their market form individuals who are the net savers.

Individuals are the net savers and their funds are channeled to users who in turn offer interest to the borrowed funds. This compensates for the opportunity cost lost for foregoing the use of the capital.

1. Characteristics of a good market
2. **Timely and accurate information**

Participants of the market need to have timely and accurate information in order to help them in proper decision-making on any investment sought

1. **Liquidity**

Ability to buy or sell an asset quickly at a known price. Liquidity requires marketability and price continuity which in turn requires market depth

1. **Transactional cost**

Lower costs make a market more efficient. An investor prefers a lower cost transaction i.e. 10% to higher cost transactions, i.e. 17% of the value of trade.

Iv. **Information efficiency**

Buyer/seller wants the prevailing market price to adequately reflect all information available regarding supply and demand factors in the market. If such conditions change due to new information the price should follow suit.

Financial intermediation involves surplus and deficit economic units. Some economic units will find that their saving out of income will exceed their planned investment while others will find themselves in a position where their saving is insufficient to meet desired internal investment. The ultimate lender can be further described as non financial economic units that generate excess funds, i.e. household sector, the corporate sector, general government sector and foreign sector.