

## SHORT Answer Theory Questions

### #1. How is maximization of current share price related to the maximization of shareholders' wealth?

The overarching goal of the financial manager is to maximise shareholders' wealth. The Financial Manager is responsible for 3 main tasks: -

- Making Investment Decisions (most important)
- Making Financing Decisions
- Managing Cashflow from Operating decisions

All of the above decisions will shape what the firm does and the impact upon whether it will add value for its owners.

Shareholders purchase shares in companies to generate wealth. Therefore, if the above 3 tasks are not handled appropriately, then the companies' share price will potentially be lowered (and not maximised) meaning shareholder wealth will not be maximised

### #2. Why does the value of money deteriorate if received in the future instead of the present?

In general, a dollar today is worth MORE than a dollar in 1 year. The reason for this is due to the concept of interest rates. The rate that we can exchange money today for money in the future is determined by the current interest rate.

That is, if you have 1 dollar today - you can invest it and earn interest. @ 7%pa - this would give you \$1.07. However, if you simply held the dollar for 1 year and not invested it - you would still have a dollar (that is now worth not as much as the other dollars that have been invested).

### #3. Define the agency problem? How can it be reduced in corporations?

**Agency problem** - where there's separation of ownership & control in an organisation. This leads to Managers having little incentive to work in the interests of shareholders as they put their own self-interest ahead of shareholders.

It's commonly addressed by minimising the number of decisions that Managers are able to make that would result in putting their self-interest before shareholders. Eg. Mutually rewarding compensation contracts that link Managers performance and remuneration to share price or profits.

#### #4. What is the essential difference between an annuity due and an ordinary annuity?

Annuity Due - A stream of equal cashflows arriving at a regular interval over a specified time period. Where the 1st payment occurs at the BEGINNING of the period;

Ordinary Annuity - A stream of equal cashflows arriving at a regular interval over a specified time period. Where the 1st payment occurs at the END of the period.

#### #5. "If the EAR on a savings account is given to be 4.848% then the monthly rate is 0.404%." Is this statement correct or incorrect? Explain your answer.

If EAR = 4.848% then the monthly rate is actually 0.39513% and NOT 0.404% therefore, it's incorrect. The reason for the disparity is that the question simply divides the EAR by 12 whereas the correct way is to raise the EAR by a power of the number of periods compounding (i.e. in this case,  $1/12$ ).

The correct solution therefore takes into account the interest compounding monthly.

#### #6. How is the NPV rule related to the goal of maximising shareholder wealth?

**NPV Rule** - *"When making an investment decision (i.e. choosing amongst investment alternatives), take the alternative with the highest positive NPV. Choosing this alternative is equivalent to receiving its NPV in cash today"*

Clearly, a rule that supports a decision to increase shareholder wealth is important. Moreover, when evaluating investment options using NPV - you will always increase shareholder wealth by accepting projects where  $NPV > 0$  and rejecting those where  $NPV < 0$ . These outcomes increase or decrease a firm's value which in turn, maximises shareholder wealth.

#### #7. What types of cash flows can a bond investor expect by holding on to a bond till maturity?

**Bonds** - The types of cashflows the bond holder can expect to receive by holding a bond to maturity are: -

- **Face (or Par) Value** - This is repaid at the maturity date of the bond
- **Coupons** - i.e. interest payments that are paid periodically until maturity date.

## #8. Discuss the major limitations of the dividend discount model of share valuation.

**Dividend Discount Model** - *“Values shares of a firm according to the present value of the future dividends that the firm will pay.”*

The DDM values shares according to the future dividends paid to shareholders. Unlike a treasury bond - where the cash flows are known with virtual certainty - tremendous uncertainty surrounds dividend-related cash flows.

For example - even small changes in the dividend growth rate can lead to large changes in the estimated share price. I.e. it's very sensitive!

Also, you can only use this model to value those firms that actually pay a dividend and intend to do so in the future.

## #9. What is the intuition behind valuation by multiples technique? What are its major limitations?

**Valuation multiple** - The ratio of the value to some other measure of the firm's scale or cash flow. (e.g. price per sq. M for office buildings). Commonly used are: -

- P/E (share price divided by earnings per share)
- Enterprise Value multiples (to EBITDA)
- Other - Price to Book value of equity per share

The major limitation is that firms are not identical - therefore, the usefulness of a valuation multiple depends upon the nature of the differences between firms and the sensitivity of the multiples to these differences. Generally, there is no clear guidance about how to adjust for these differences.

The other limitation is that multiples provide only information regarding the value of the firm RELATIVE TO other firms in the comparison set. I.e. won't tell you whether the entire industry is over-valued. We assume that comparable firms have the same risk and future growth as the firm being valued.

## #10. State the payback period method. What are the main drawbacks of the payback period method?

**The Payback Period Method** - *“The amount of time until the cash flows from a project offset the initial investment. The time it takes to pay back the initial investment.”*

The main drawbacks are that it: -

- Ignores the time-value of money
- Ignores cash flows after the payback period
- Lacks a decision criterion grounded in economics
- Does not take explicit account of risk when comparing projects

**#11. You decide whether to take up a Graduate position with Woolworths or Qantas – which company is more likely to be exposed to systematic risk? What is the difference between systematic and unsystematic risk?**

**Systematic Risk** - *“Fluctuations of a share’s return that are due to firm or industry specific news and are independent risks unrelated across shares”.*

**Unsystematic Risk** - *“Fluctuations of a share’s return that are due to market-wide news representing common risk”.* Only this type of risk can be eliminated by diversification.

I think Qantas is more likely to be affected by systematic risk. For example - when 9/11 occurred, it was predominantly airlines and financial markets that were affected - not necessarily supermarkets as people still needed to eat food. Also, travel is more often than not a discretionary spend - as distinct from food - and therefore, during periods of economic hardship, consumers are more likely to cut-back on travel before they cut back on food.

**#12. Why isn’t the total risk of a portfolio simply equal to the weighted average of the risks of the securities in the portfolio?**

Because: -

- *“By combining shares into a portfolio, you reduce risk through diversification”.* Because the shares do not move identically, some of the risk is averaged out in a portfolio.
- *“The amount of risk that is eliminated in a portfolio depends upon the degree to which the shares face common risks and move together”.* I.e. two airline shares in a portfolio together have only marginally less volatility than two individual airline shares. On the other hand, airline and oil shares do not move together and hence, more volatility is cancelled out making that portfolio less risky.