MAF203 – Business Finance

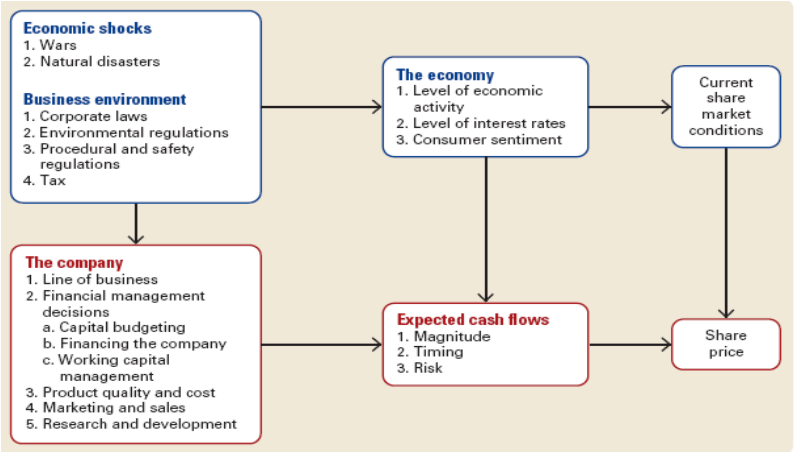
Topic 1 – The Financial Manager of the Company

- The finance manager (or finance director, or CFO) of a company takes care of the financial function of the company. The finance function is involved in making the following main financial decisions
  - Investment
  - Financing
  - Dividend (distribution)
  - And Working Capital
- If appropriate/correct decisions are made, the value of the company will increase

The Goal of the Company

- What is the goal of the company?
  - Minimising risk?
  - Maximising accounting profits?
- Minimising risks or maximising profits without regard to 'wealth creation' is not a successful strategy for a company
- Why not maximise (accounting) profits?
  - Different results can be achieved by applying accounting standards and principals in different ways ("creative accounting" can either increase or decrease profits)
  - Accounting profits are not (necessarily) the same as cash flows
  - Profit maximisation does not tell us when cash flows are to be received
  - Profit maximisation ignores the time value of money, uncertainty and risk associated with cash flows
- Maximising the wealth of the shareholders (owners) of the company is the goal of the company
  - How can this be done?
    - By Maximising the value and price of the company's shares
  - How can managers maximise the value and price of shares?
    - By making appropriate financial (and other) decisions
  - Cash is King (Not Accounting Profit)
    - When analysts and investors determine the value of a company's share price, they consider the cash flows and their,
      - Size, timing and riskiness

Major Factors Affecting Share Prices



Company – Specific Reasons/Decisions also Affect Share Price of the Company

- Examples

    - Capital Investment decisions
        - Embarking on a new project
    - Not paying the expected dividend to shareholders

Agency Conflicts – Arise from Separation of Ownership and Control

- For large companies, the ownership of the firm is spread over a huge number of shareholders (i.e, owners) and these shareholders may individually have very little control over management.
- Manager's mange/control the company.
- Management may make decisions that benefit their self-interest rather than those of the shareholders.

Agency Relationships

- Generally an agency relationship arises whenever one party, called the principal, hires another party, called the agent.
- In companies' shareholders are the principals, mangers are the agents.

Agency Conflicts

- Do managers always want to maximise shareholders' wealth (share price)?
    - Shareholders own the company, but managers control the money and have the opportunity to use it for their own benefit.
- Agency Costs
    - The costs of the conflict of interest between the company's owners and its management, e.g, cost of monitoring, cost of incentives such as executive options, reduced share price.

Infamous Examples of Managers Opportunistic Behaviour

- Tyco Corporation's ex-CEO Dennis Kozlowski spent US$ 17 million on a Fifth Avenue Condominium. He and CFO were convicted of pilfering US$ 600 million from Tyco.
- WorldCom CEO Bernie Ebbers borrowed US$ 400 million from the company at favourable rates. Convicted for US$ 11 billion accounting scandal.
- Madoff's Ponsy Scheme (amount involved $65 billion): convicted for fraud and now in Jail; His son committed suicide.
- In Australia, HIH insurance collapse and many other collapses (e.g., Bond Corporation, ABC learning, Storm Financial) are at least partly blamed on managers opportunistic behaviour.

Agency Conflicts

- Aligning the interests of Management and Shareholders – How?
    - Through control of the firm (control mechanisms)
        - Independent board of directors, control systems, audit committees etc.
    - Through management compensation
        - A significant portion of management compensation (salaries and perks) is tied to firm performance (e.g. share price)
        - Giving Share options to managers (executive options)

The Importance of Ethics in Business

- Ethics
    - A society's ideas (values) about what actions are right and wrong.
    - Doing the right thing; abiding the law, social and ethical norms; not doing anything that harms trust.
- Serious consequences
    - Legal cost of ethical mistakes can be extremely high.

- Ethics develops a positive business culture
    - The law is not enough
    - Ethicists argue that laws and market forces are not enough
    - Companies have a responsibility to the society in which it operates: i.e., Corporate Social Responsibility (CSR)

Corporate Social Responsibility (CSR) in Finance

- What is corporate social responsibility (CSR)?
- Responsibility to the society/community beyond the maximisation of shareholders wealth
    - Example – The Body Shop
        - The Body Shop is regarded as a pioneer of modern corporate social responsibility as one of the first companies to publish a full report on its efforts and initiatives. It supports causes such as self-esteem, environmental protection, animal rights, community trade and human rights.

Examples of Socially Irresponsible Behaviour

- Ok-Teddy Mining disaster in PNG (BHP polluted PNG's rivers)
- Bhopal Disaster in India –Union Carbide (thousands died)
- Jabiluka (uranium) mining in Australia? (Damaging the environment?)

Critical Thinking

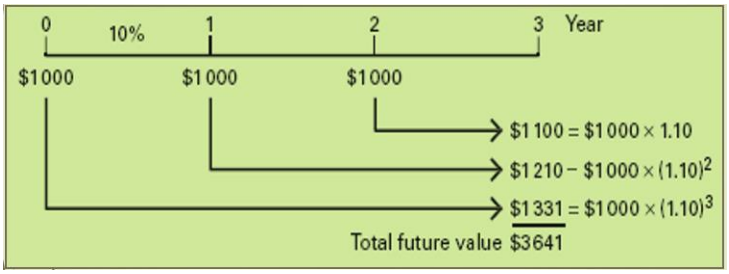
- Are the aims of maximising wealth and being socially responsible (CSR) contradictory?
- In other words, can a company maximise shareholders' wealth while being socially responsible?

Discontinued Cash Flows and Valuation Concepts

Multiple Cash Flows

- Future Value of Multiple Cash Flows
- Solving future value problems with multiple cash flows.
    - Steps:
        1. Draw a timeline and place each cash flow in correct time period
        2. Calculate future value of each cash flow
        3. Add up the future values
            - This process is called 'compounding'

Future Value of 3 Cash Flows

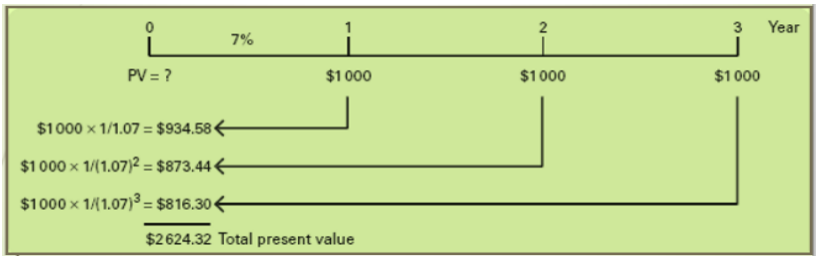


- Time line for a 3 year investment with a rate of return of 10% p.a.
- The value of the investment after 3 years is $3,641. See details on pp. 180-181.
- Time 0 denotes 'now' (or beginning of year 1)

Multiple Cash Flows

- Present Value of Multiple Cash Flows
    - Steps
        1. Draw a timeline and place each cash flow in correct time period
        2. Calculate present value of each cash flow
        3. Add up all present values
    - Sum of present values of a stream of future cash flows is their present value (i.e. intrinsic value now)
        - This is called 'Discounting'

Present Value of 3 Cash Flows



- Assume the above figure is showing a 3 year loan with repayments of $1,000 at the end of each year for 3 years and the relevant interest rate (discount rate) is 7%. The value (amount) of the loan (asset) today is $2,624.32
- Pages 183 – 184 of Textbook

- What will happen to $1 at 18% rate of interest?

Period (Year)	Present Value of $1 received at the end of the period	Present value of $1 per period received at end of every period	Future value (accumulated value) of $1 received at the beginning of the period 1	Future value (accumulated value) of $1 per period received at end of period
1	.85	.85	1.18	1.00
2	.72	1.57	1.39	2.18
3	.61	2.18	1.64	3.57
4	.52	2.70	1.94	5.21

- The Nature of Cash Flows

Identify the Nature of the cashflow	Present Value	Future value
Individual sum	Use Appendix: Table A2	Use Appendix: Table A1
Annuity	Use Appendix: Table A4	Use Appendix : Table A3

- Perpetuity is an annuity forever, hence perpetuities can be solved using annuity tables

- Text book – pages 746 - 753

Constant (Level) Cash Flows – Annuities and Perpetuities

- Many situations exist where businesses and individuals would either receive or pay a constant amount of money over many time periods
    - Rent
    - Loans
    - Wages
    - Superannuation
    - Coupon (interest) payments

- **Annuity**: a stream of equal amount of cash flows, equally spaced in time for a finite period
  - ***Ordinary annuity***: cash flows occurring at **<u>end</u>** of each period
  - ***Annuity due***: cash flows occurring at the **<u>beginning</u>** of each period
    - Pages 203 -205 of the textbook
- **Perpetuity**: same cash flow continue to the infinity (continue forever). Example, non-redeemable preference shares.

- Present value of an annuity (PVA) – example
  - Calculate present value (PVA) of a financial contract (asset) that pays $2000 at the end of each year for 3yrs if the relevant discount rate is 8% (see pp. 187-8)

$$PVA_n = CF \times \text{Present value factor for an annuity}$$

$$= \frac{CF}{i} \times \left[1 - \frac{1}{(1+i)^n}\right] or, CF \times \left[\frac{1 - \frac{1}{(1+i)^n}}{i}\right]$$

$$= \$2000 \times 2.577$$

$$= \$5154.00$$

  - You will find the above factor (2.577) in Appendix Table A4. Financial calculators and spreadsheets may also be used instead of the above formula.

Three Methods to Solve Future Value/Present Value Problems

- You have a choice of three methods to compute the appropriate factor:
  1. Using the formula (as demonstrated in the previous slide)
  2. Using a financial calculator (e.g., Sharp EL735s) (Demonstrated in the next slide).
  3. Using Appendix Tables (Demonstrated in the slide after the next slide)

Solve using a Financial Calculator

- input 3 and press N (i.e. 3N)
- input 8 and press I/Y (i.e. 8 I/Y)
- input 2000 and press PMT (i.e., 2000 PMT)
- Input 0 and press FV (i.e., 0 FV)
- Then press COMP and PV keys
- You will get the answer -5154.19 (ignore the negative sign. Later we will explain why it is negative)
- See the calculator example is given on page 190 of the textbook
  - We use Sharp EL 738 or EL 735S for our demonstrations. Most financial calculators operate on the same logic

Finding the Present Value Annuity Factors from Tables

- Table A-4 shows present value annuity factors for $1 over different periods and interest rates. Locate the required factor by identifying the # periods, then the column for the relevant interest rate. At 8% for 3 years the factor is 2.577. Then multiply the periodic payment (receipt) by this factor = 2000 X 2.577 = $515

Number of years	Interest rate per year						
	1%	5%	6%	7%	8%	9%	10%
1	$ 0.990	$ 0.952	$ 0.943	$ 0.935	$ 0.926	$ 0.917	$ 0.909
2	1.970	1.859	1.833	1.808	1.783	1.759	1.736
3	2.941	2.723	2.673	2.624	2.577	2.531	2.487
4	3.902	3.546	3.465	3.387	3.312	3.240	3.170
5	4.853	4.329	4.212	4.100	3.993	3.890	3.791
10	9.471	7.722	7.360	7.024	6.710	6.418	6.145
20	18.046	12.462	11.470	10.594	9.818	9.129	8.514
30	25.808	15.372	13.765	12.409	11.258	10.274	9.427