



Semester 2: 2016

# FUNDAMENTALS OF FINANCE

Ryan

Deakin University, Burwood



## **Table of Contents**

<b>WEEK 1: INTRODUCTION TO FINANCE</b>	<b>3</b>
<b>WEEK 2: FINANCIAL MATHS (PART 1)</b>	<b>8</b>
<b>WEEK 3: FINANCIAL MATHS (PART 2)</b>	<b>12</b>
<b>WEEK 4: FINANCIAL SYSTEMS IN AUSTRALIA: BASICS</b>	<b>14</b>
<b>WEEK 5: VALUATION OF DEBT AND EQUITY</b>	<b>18</b>
<b>WEEK 6: PART 1 RISK AND RETURN (SINGLE ASSET)</b>	<b>23</b>
<b>WEEK 7: PART 2 RISK AND RETURN (MULTIPLE ASSETS – DIVERSIFICATION)</b>	<b>26</b>
<b>WEEK 8: PART 3 RISK AND RETURN (MANY ASSETS)</b>	<b>30</b>
<b>WEEK 9: INTEREST RATES</b>	<b>34</b>
<b>WEEK 10: FOREIGN EXCHANGE</b>	<b>37</b>

## Week 1: Introduction to Finance

### What is Finance?

Finance is the study of how individuals, businesses and institutions acquire, spend and manage financial resources.

KEY IN FINANCE: not profit but rather CASH FLOWS

### Major areas of Finance

- Investment Analysis and management
- Corporate finance
- Capital Markets and financial institutions
- International Finance
- General Finance

### Careers in Finance

Financial management

Financial intermediaries (banks)

Securities markets (analyse the market and provide investors with

Government entitles

Non-for-profit organisations

Personal financial planning

### The Finance Function

The main goal of managers is to maximize the market value of the firm

- Value of firm = present (current) value of future expected cash flows

*E.g. the value of a lamp is the cash flow it is expected to generate in the future*

This maximises the wealth of shareholders

- Shareholder wealth = present value of their future expected cash flows

### How do managers maximise the firm's value?

Managers maximise the firm's value by making a number of key corporate policies:

- Investment or capital budgeting
- Financing or capital structure
- Distribution or dividend policy
- Corporate hedging or risk management

### Value of Firm

Value = the present (current) value of the cash flows an asset is expected to generate in the future

Main factors to consider when valuing a firm:

- Magnitude of expected cash flows
- Timing of cash flows (when do you receive the cash flows – money that is received earlier is always better than money that is received later)
- Risk of expected cash flows

*Example of two friends* – you need a favour and you need to borrow some money. One friend is reliable and one friend says if you are good to me I will give you the money. First friend has no uncertainty or risk and you will get the money requested regardless.)

### Alternation forms of Business Organisations

**Proprietorship** - unincorporated business owned by one individual

Advantages	Disadvantages
Easy, inexpensive to form and to dissolve	Not a separate entity - Unlimited personal liability for debts
Subject to few government regulations	Ownership can only be transferred by selling the business to a new owner. If the business is not sold, then it will cease to exist when the owner retires or dies.
Control rests with the owner	Size of business is limited by the wealth of the owner and the amount
Taxed like an individual	

**Partnership** - is a business owned by two or more people acting as partners

Advantages	Disadvantages
Similar to a sole proprietorship	Partners have unlimited personal liability for debts
Combined wealth and talents of several individuals, and employees can be offered the prospects of becoming partners	Difficult for partnership to obtain large sums of capital

**Corporation** - Legal entity created by a statute (Corporation Act 2001)

Advantages	Disadvantages
Limited liability	Setting up and filling regulatory reports is complex
Stocks represent ownership	Capital raising is also heavily regulated
Unlimited life - the company is not affected by death or retirement of its owners/employees	Earnings are subject to double taxation in many countries
Separate and distinct from its owners - Not liable for company's debt	Agency issues

#### Agency Relationships (problems)

- Arises when there is separation between ownership and control
- Problem exists when there are conflicts of interest between shareholders and managers/creditors

Not much of a problem for Corporation Structures because the managers are typically not owners

#### Stockholders VS Managers

Managerial compensation

- Remuneration package
- Performance shares
- Executive stock options

Shareholder intervention - proxy fight

The threat of hostile takeover

#### Stockholders VS Creditors

Creditors have no ownership, but lend at rates based on:

- Riskiness of the firms existing assets
- Expectations concerning the riskiness of future asset additions
- The firms existing mix of financing (capital structure)

Stakeholders must be treated fairly

## Corporate Governance

The "set of rules" that a firm follows when conducting business

Should provide stakeholders with an understanding of:

- How executives run the business
- Who is accountable for important decisions

Corporate governance is key because it outlines the processes and procedures of the company – companies with a good corporate governance ensure the business will do well in the long run.

## Introduction to Income Taxation

Cash flow after TAX - company has to pay tax first

Type of taxpayers

- Individual
- Partnership
- Corporate

Taxable Income

- Assessable income *MINUS* allowable deductions

Tax Rate

- Marginal (individuals) vs Flat (corporates)

## Tax Payable: Individual Income Taxes

Progressive tax: higher tax (rate) on higher incomes

Taxable income = gross income - allowable deductions

Tax payable is the actual tax owed (paid) to government

Marginal tax rate: the tax rate on the last unit of taxable income

Taxable income	Tax on this income
0 - \$18,200	Nil
\$18,201 - \$37,000	19c for each \$1 over \$18,200
\$37,001 - \$80,000	\$3,572 plus 32.5c for each \$1 over \$37,000
\$80,001 - \$180,000	\$17,547 plus 37c for each \$1 over \$80,000
\$180,001 and over	\$54,547 plus 45c for each \$1 over \$180,000

Tax Payable: Business Partnership

- Net profit of the partnership is shared among the partners
- A partnership doesn't pay income tax on the profits earned - each partner pays tax on the share of profit they receive

*For example:* suppose the J&S Plumbing Partnership makes \$200,000 net profit in 2015-16. There are two partners, John and Sue with 40% and 60% shares of the partnership respectively. Therefore, John is entitled to \$80,000 ( $200,000 \times 40\%$ ) and Sue is entitled to \$120,000 ( $200,000 \times 60\%$ ). Then, they incorporate these amounts into their taxable income and pay their individual income tax.

Tax Payable: Company

Suppose John and Sue incorporate their business as the J&S Plumbing Ltd

Taxable Income (before-tax profit):	\$200,000
Australia Company Tax Rate:	30% ( <b>Flat Rate</b> applied to all companies)
Tax payable ( $\$200,000 \times 30\%$ )	\$60,000