

Finance For Non Finance Managers

Manjit Biant BSc(hons) ,ACMA

Finance For Non Finance Managers

Types of business organisations

Why does someone set up a business?

- Commercial business is a human activity involving exchange for wealth creation and satisfaction of the parties to the exchange.
- Started up by someone using his/her expertise, money, assets to add value/make more money.

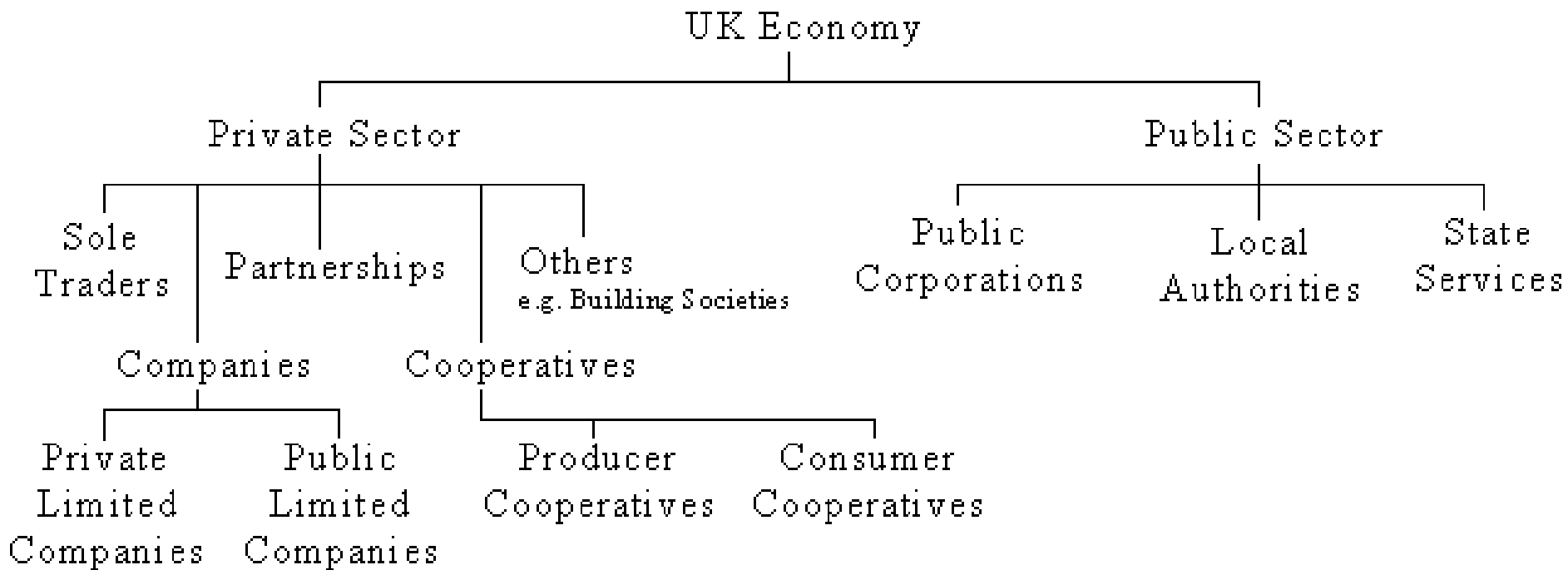
Non profit making businesses...

More socially and community orientated

Have a purpose to protect others and

Give opportunity to those less able to compete
in the hustle and bustle of a competitive
market place

Types of Business Organisations



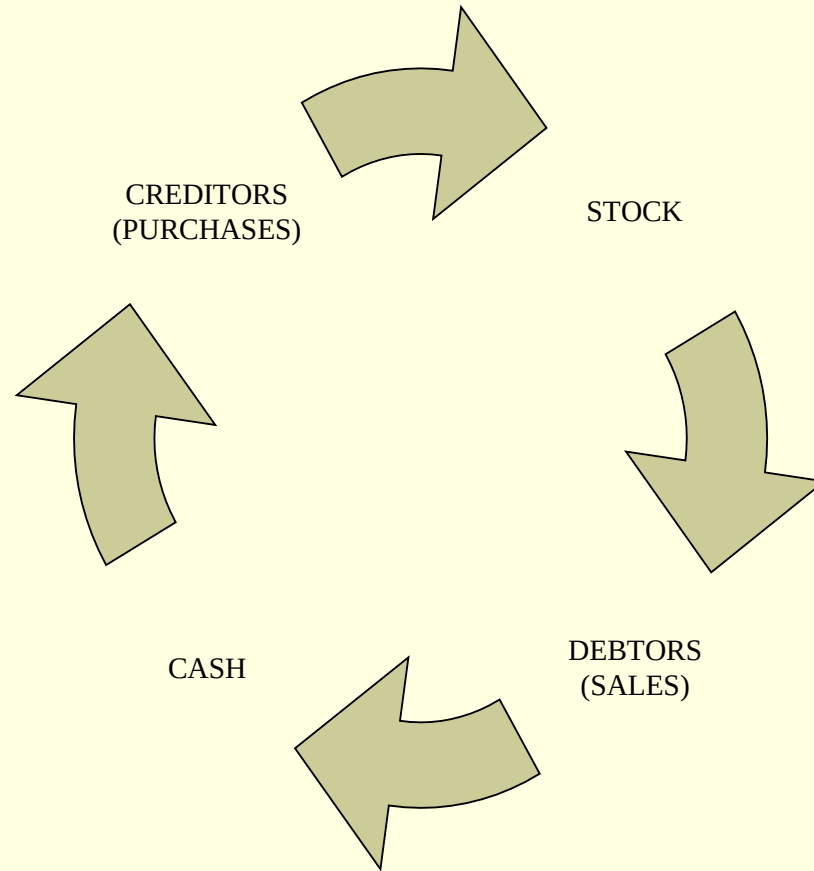
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Basic economics

The cash cycle

- Cash
- Stock
- Debtors
- Creditors

The cash cycle

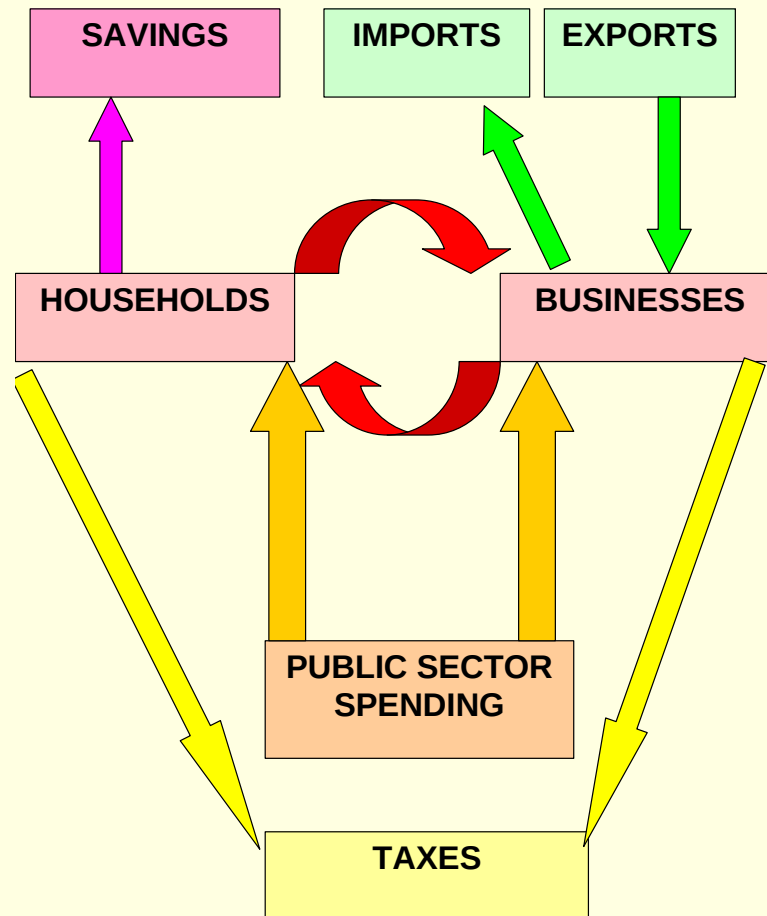


The trade cycle

- Businesses
 - buying and selling
- Households
 - spending and saving/investing
- Governments
 - taxes and public spending
- Foreign trade
 - imports and exports

The trade cycle

THE TRADE CYCLE

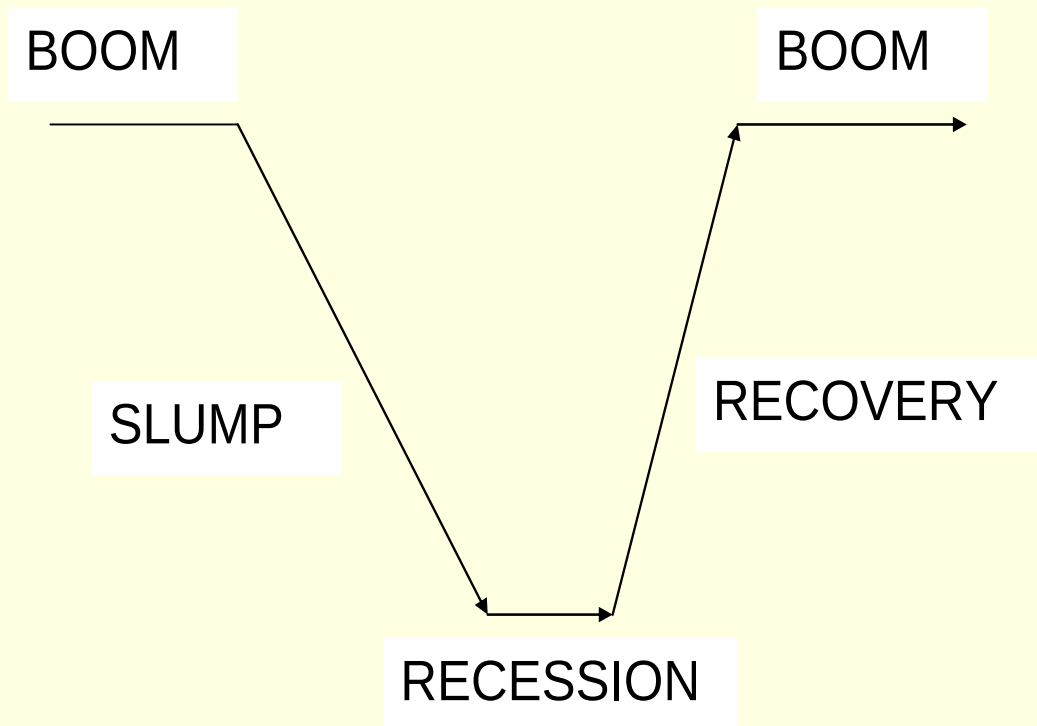


The economic cycle

- Boom
- Slump
- Recession
- Recovery

The economic cycle

THE ECONOMIC CYCLE

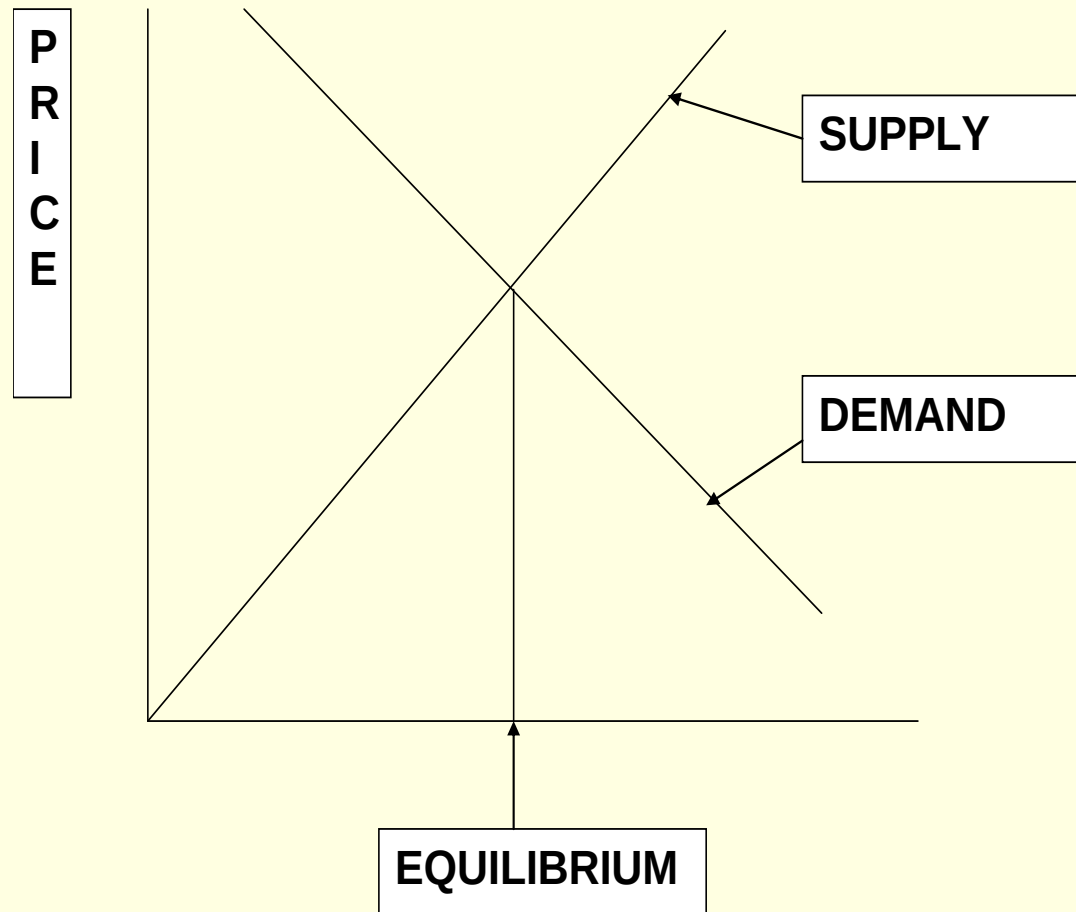


Pricing

- Effect on demand
- Effect on supply
- Supply v demand
- Quality of goods
- Profitability
- Monopolies

Pricing

PRICING DECISIONS



Financing

- Owner's capital
- Banks and other lenders
- Creditors
- Venture capital
- Grants

Finance For Non Finance Managers

Record keeping

Business documentation

- Sales orders
- Sales invoices
- Customer statements
- Purchase orders
- Purchase invoices
- Supplier statements

Book-keeping

- Sales day book
- Purchase day book
- Receipts cash book
- Payments cash book
- Petty cash book
- Sales ledger
- Purchase ledger
- General (nominal) ledger

Record keeping

RECORD KEEPING

SOURCES OF INFORMATION – PRIME DOCUMENTS

- Purchase invoices
- Sales invoices
- Purchase credit notes
- Sales credit notes
- Remittance advices received
- Bank paying-in slips
- Remittance advices issued
- Cheques book stubs
- BACS remittances

SUMMARISING THE INFO - PRIMARY ACCOUNTING RECORDS

- Purchase day book
- Sales day book
- Purchase returns day book
- Sales returns day book
- Cash received book
- Cash paid book
- Petty cash book
- The journal

THE ACCOUNTING SYSTEM - DOUBLE ENTRY BOOKKEEPING

- Purchase ledger
- Sales ledger
- General/Nominal ledger

CHECKING – THE TRIAL BALANCE

- Trial balance
- Error correction
- Extended trial balance

FINANCIAL STATEMENTS

- Profit and loss account
- Balance sheet

Double entry book-keeping

- History
- Debits
- Credits

Debits and credits

<u>DEBIT</u>	<u>CREDIT</u>
ASSETS (OWNED BY THE COMPANY)	LIABILITIES (OWED BY THE COMPANY)
ASSETS (OWED TO THE COMPANY)	CAPITAL - RETAINED PROFITS(EFFECTIVELY OWED BY THE BUSINESS TO THE OWNER)
PURCHASE OF STOCK	SALES
EXPENSES/OVERHEADS	OTHER INCOME

The general ledger

- Capital
 - owners, shares, etc
- Assets
 - fixed, current
- Liabilities
 - current, long term
- Income
 - sales, other
- Expenses
 - variable, fixed

ANY COMPANY

TRIAL BALANCE

Trial balance

AS AT 31 DECEMBER 2005

	DEBIT £	CREDIT £
EQUIPMENT - COST	25,000	
EQUIPMENT – ACCUM'D DEP'N		5,000
VEHICLES - COST	12,000	
VEHICLES – ACCUM'D DEP'N		3,000
STOCK AS AT 1/1/2005	10,000	
DEBTORS	15,000	
BANK		5,500
CREDITORS		12,500
SALES		150,000
PURCHASES	100,000	
SALARIES & WAGES	31,000	
VEHICLE RUNNING EXPENSES	18,000	
GENERAL EXPENSES	15,000	
DRAWINGS	24,000	
CAPITAL		74,000
	250,000	250,000

1. THE CLOSING STOCK IS £20,000
2. DEPRECIATION CHARGES FOR THE YEAR ARE £2,500 (EQUIPMENT) AND £3,000 (VEHICLES)

Record keeping

Trial balance

- Debits equal to credits
- Profit and loss account
- Balance sheet

Finance For Non Finance Managers

Depreciation

Types of expenditure

- Revenue expenditure
- Capital expenditure
- Useful life
- Disposal value

Depreciation

- Original cost
- Disposal value
- Apportionment
- The effect on profit
- Net book value

The straight line method

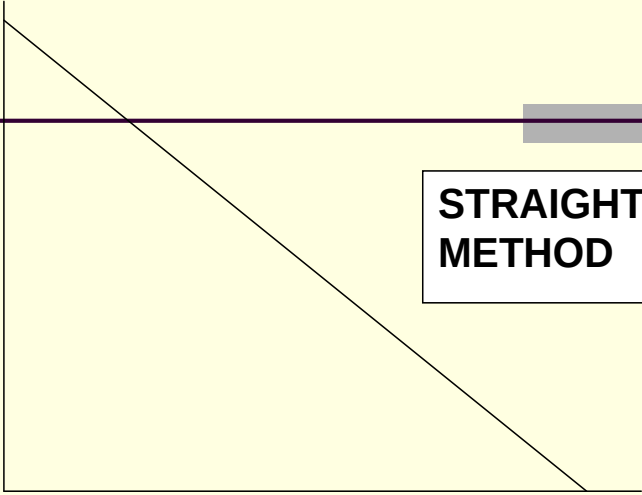
- Calculation
- Graphical representation
- Suitability

The reducing balance method

- Calculation
- Graphical representation
- Suitability

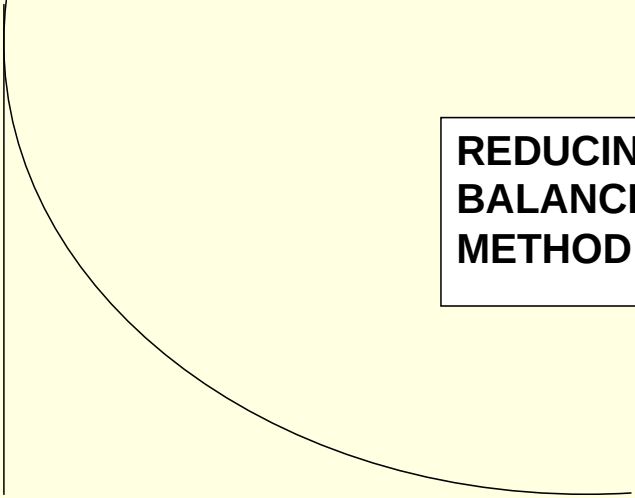
Depreciation

DEPRECIATION



A graph illustrating the Straight Line Method of depreciation. The vertical axis represents the book value of the asset, and the horizontal axis represents time. A straight line starts at a high point on the vertical axis and slopes downward linearly until it reaches the horizontal axis. A horizontal line is drawn across the graph, intersecting the downward-sloping line. A grey rectangular bar is positioned above the horizontal line on the right side of the graph.

**STRAIGHT LINE
METHOD**



A graph illustrating the Reducing Balance Method of depreciation. The vertical axis represents the book value of the asset, and the horizontal axis represents time. A curve starts at a high point on the vertical axis and slopes downward, curving more steeply at first and then leveling off as it approaches the horizontal axis. A horizontal line is drawn across the graph, intersecting the curve.

**REDUCING
BALANCE
METHOD**

Fixed asset registers

- Layout
- An aid to security

FIXED ASSET REGISTER

ASSET		COMPUTER		
SUPPLIER		DELL		
LOCATION		ACCOUNTS OFFICE		
SERIAL NUMBER		123456		
DEP'N METHOD		40% REDUCING BAL.		
YEAR	COST	DEP'N	DEP'N TO DATE	N B V
2001	1,000	400	400	600
2002		240	640	360
2003		144	784	216
2004		86	870	130

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Business accounts

TRIAL BALANCE

Trial balance

AS AT 31 DECEMBER 2005

	DEBIT £	CREDIT £
EQUIPMENT - COST	25,000	
EQUIPMENT – ACCUM'D DEP'N		5,000
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Stock

- Purchases
- Cost of sales
- Effect on profit

Stock

- Increased by Purchases
- Decreased by Sales
- Affects Cost of Sales
- Therefore Affects Profit

COST OF SALES

Cost of sales

STOCK AVAILABLE AT START OF PERIOD	10,000
---------------------------------------	--------

STOCK PURCHASED DURING THE PERIOD	<u>100,000</u>
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TOTAL STOCK AVAILABLE TO SELL	<u>110,000</u>
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STOCK SOLD DURING THE PERIOD	90,000
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STOCK UNSOLD	<u>20,000</u>
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	<u>110,000</u>
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THEREFORE:

COST OF SALES =

OPENING STOCK
+ PURCHASES
– CLOSING STOCK

The trading account

- Sales
- Cost of sales
- Gross profit

The profit and loss account

- Gross profit
- Other income
- Expenses/overheads
- Net profit

Profit and loss account

ANY COMPANY
PROFIT AND LOSS ACCOUNT
FOR THE PERIOD ENDED 31 DECEMBER 2005

		£
SALES		150,000
OPENING STOCK	10,000	
PURCHASES	<u>100,000</u>	
	110,000	
CLOSING STOCK	<u>(20,000)</u>	
COST OF SALES		<u>90,000</u>
GROSS PROFIT		60,000
SALARIES & WAGES	31,000	
VEHICLE RUNNING	18,000	
DEPRECIATION	5,500	
GENERAL EXPENSES	<u>15,000</u>	
		<u>(69,500)</u>
NET PROFIT/(LOSS)		<u>(9,500)</u>

Business accounts

Limited company accounts

	£
TURNOVER	150,000
COST OF SALES	<u>(90,000)</u>
GROSS PROFIT	60,000
DISTRIBUTION COSTS	(18,000)
ADMIN EXPENSES	<u>(30,500)</u>
OPERATING PROFIT	11,500
FINANCE COSTS	<u>(2,000)</u>
PROFIT BEFORE TAX	9,500
TAXATION	<u>(2,000)</u>
PROFIT AFTER TAX	<u>7,500</u>

The balance sheet

- Fixed assets
- Order of permanence
- Current assets
- Current liabilities
- Working capital
- Long term liabilities
- Net worth
- Owner's capital

Balance sheet

ANY COMPANY BALANCE SHEET AS AT 31 DECEMBER 2005

	£	£	£
<u>FIXED ASSETS</u>			
EQUIPMENT	17,500		
VEHICLES	<u>6,000</u>		
		23,500	
<u>CURRENT ASSETS</u>			
STOCK	20,000		
DEBTORS	<u>15,000</u>		
		35,000	
<u>CURRENT LIABILITIES</u>			
BANK	5,500		
CREDITORS	<u>12,500</u>		
		<u>(18,000)</u>	
NET CURRENT ASSETS		<u>17,000</u>	
NET ASSETS		<u>40,500</u>	
FINANCED BY: CAPITAL			
BROUGHT FORWARD		74,000	
PROFIT/(LOSS) FOR THE YEAR		(9,500)	
LESS DRAWINGS		<u>(24,000)</u>	
CARRIED FORWARD		<u>40,500</u>	

Legislation

- Sole traders
 - Required to complete tax return
 - Self Assessment
 - Flexibility of format of accounts
- Limited companies
 - statutory format for accounts
 - No flexibility of format of accounts
 - Possible audit requirement

Advanced Financial Management

Accounting adjustments

Accruals

- Electricity
- Accountancy
- Telephone

Prepayments

- Rent
- Insurance
- Telephone

Accruals and prepayments - an example

TELEPHONE BILLS

YEAR END IS 31 DECEMBER 2006

LAST TELEPHONE BILL 30 NOV 2006:

LINE RENTAL 1/12/06 – 28/02/07 = £60

CALL CHARGES 1/9/06 – 30/11/06 = £300

LINE RENTAL

JAN 07, FEB 07 (£40) IS PREPAID

CREDIT (REDUCE) TELEPHONE EXPENSE

DEBIT PREPAYMENTS (CURRENT ASSET)

CALL CHARGES

DEC 06 (GUESS £100) ARE ACCRUED

DEBIT (INCREASE) TELEPHONE EXPENSE

CREDIT ACCRUALS (CURRENT LIABILITY)

Bad debts

- Treated as an expense
- The effect on VAT
- The effect on debtors

Stock valuation

- Accounting standards are strict
- Stock obsolescence must be taken into account
- The effect of stock valuation on profit

Accounting errors

- Types of error
 - misallocation
 - transposition of figures
- Correction of errors
 - by 'journals'

Finance For Non Finance Managers

Cashflow statements

Example

ABC LTD
CASHFLOW STATEMENT
FOR THE YEAR ENDED 31 DECEMBER 2004

NET CASH INFLOW FROM OPERATING ACTIVITIES		9,000
SERVICING OF FINANCE		
Interest paid		(12,000)
TAXATION		
Corporation tax paid		(9,000)
INVESTING ACTIVITIES		
Payments - fixed asset purchases	(8,000)	
Receipts - fixed asset disposals	<u>1,000</u>	
		<u>(7,000)</u>
NET CASH INFLOW/(OUTFLOW)		
BEFORE FINANCING		(19,000)
FINANCING		
Share capital issued	10,000	
Loans received	5,000	
Loans repaid	<u>(1,000)</u>	
		<u>14,000</u>
NET CASH INFLOW/(OUTFLOW)		<u>(5,000)</u>
CASH AND BANK BALANCES:		
At the start of the year		15,000
Net cash outflow		<u>(5,000)</u>
At the end of the year		<u>10,000</u>

Cash from operating activities

- Operating profit
- Stock
- Debtors
- Creditors
- Depreciation
- Profit/loss on disposal of fixed assets

Servicing of finance

- Interest received
- Interest paid
- Dividends/drawings paid

Taxation

- Corporation tax paid

Investing activities

- Payments to acquire fixed assets
- Receipts from disposals of fixed assets

Financing

- Issue of share capital
- Repayment of share capital
- Increase in loans
- Repayment of loans

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Users of Financial Statements - Interest in the accounts – who, what in, why?

Owners/shareholders

- Profitability
- Liquidity
- Turnover

Tax authorities

- Profitability
- Turnover
- Expenses
- Correct tax paid?

Lenders

- Repaying loans
- Security
- Interest

Employees and trade unions

- Pay rises
- Job security

Debtors

- Long term contracts
- Warranties and guarantees

Creditors

- Security of repayment
- Position if liquidation occurs

Competitors

- Is the company a takeover target
- Will the company attempt a takeover?

Financial v management accounts

- Financial accounts – used to analyse past performance and develop long term strategy
- Management accounts – used to help the company plan for the near future

Finance For Non Finance Managers

Management of working capital

Working capital

- Represented by
 - Current assets less current liabilities
- Affected by cash movements
 - purchase/sale of fixed assets
 - repayment/receipt of loans
 - payment of tax, dividends, expenses, etc
 - injections of capital

Current assets

- **Stock**

- Too much or too little
- “Just-in-time” stock deliveries
- 80-20 rule

- **Debtors**

- References, credit limits
- Prompt invoices and statements
- Settlement discounts
- Debt factoring

- **Cash**

Current liabilities

- Overdraft
- Trade creditors
 - Are a cheap source of finance
 - Company policy re- taking discounts
 - Continuity of supplies from creditors

•Working capital cycle

- Debtor days are usually more than creditor days
- Working capital cycle = debtor days + stock turnover days – creditor days
- Improve this by:
 - reducing stocks (but chance of stock-out)
 - reducing debtor days (but risk of losing custom)
 - increasing creditor days (but risk of non-supply)

Overtrading

- Decrease in working capital caused by:
 - Rapid increase in sales (+ higher debtors)
 - Need to hold more stock
 - Considerably increased overdraft
 - Higher facility required from creditors

OVERTRADING

Overtrading

Purchase of fixed assets £20,000
 Purchase of stock £24,000
 Creditors increase by £12,000
 Bank balance reduced by £32,000 (20+24-12)

	(BEFORE)	(AFTER)
<u>FIXED ASSETS</u>		
EQUIPMENT	10,000	30,000
<u>CURRENT ASSETS</u>		
STOCK	24,000	48,000
DEBTORS	6,000	6,000
BANK	<u>2,000</u>	<u>0</u>
	32,000	54,000
<u>CURRENT LIABILITIES</u>		
OVERDRAFT	0	30,000
CREDITORS	<u>8,000</u>	<u>20,000</u>
	8,000	50,000
NET CURRENT ASSETS	<u>24,000</u>	<u>4,000</u>
NET ASSETS	<u>34,000</u>	<u>34,000</u>
<u>FINANCED BY:</u>		
<u>CAPITAL</u>	<u>34,000</u>	<u>34,000</u>

In practice, more sales will be achieved, resulting in increased debtors, but no extra cash until the debtors pay.

Working capital

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Performance indicators

Who monitors business performance?

- Owners
- Managers
- Financiers
- Tax authorities
- The public
- Employees

Solvency ratios

- Current ratio = CA/CL
- Quick (acid test) ratio
= $CA \text{ (excl stock)}/CL$
- High ratios are good for liquidity
- ...but not an efficient use of funds

Profitability ratios

- Gross profit margin = $GP/sales$ (%)
- Net profit margin = $NP/sales$ (%)
- Operating profit margin = $OP/sales$ (%)
- Return on capital employed
(return on net assets) = $PAT/capital$ (%)
- GP % should be consistent over time
- GP % affected by selling/buying power
- NP % shows ability to control costs

Performance ratios

- Debtor collection period
= $\text{Av debtors} / \text{credit sales} \times 365$
- Creditor payment period
= $\text{Av creditors} / \text{credit purchases} \times 365$
- Stock turnover
= $\text{Av stock} / \text{cost of sales} \times 365$
- Want low debtor days (but not too low!)
- Want high creditor days (but not too high!)
- Want fast stock turn but not to run out

Investment ratios

- Dividend yield = dividend/share price (%)
- Earnings per share
= profit after tax/number of shares issued (p)
- Earnings yield = EPS/share price (%)
- Price/earnings ratio = Share price/EPS
- Dividend cover
= profit after tax/dividends paid
- Economic value added
(based on expected future cash flows)
= Net cash flows less cost of capital

Interpretation

- Has a ratio improved or deteriorated?
- Trend analysis over time
- Comparison with previous years
- Comparison to other businesses
- Problems with different business sectors – ratios cannot be easily compared

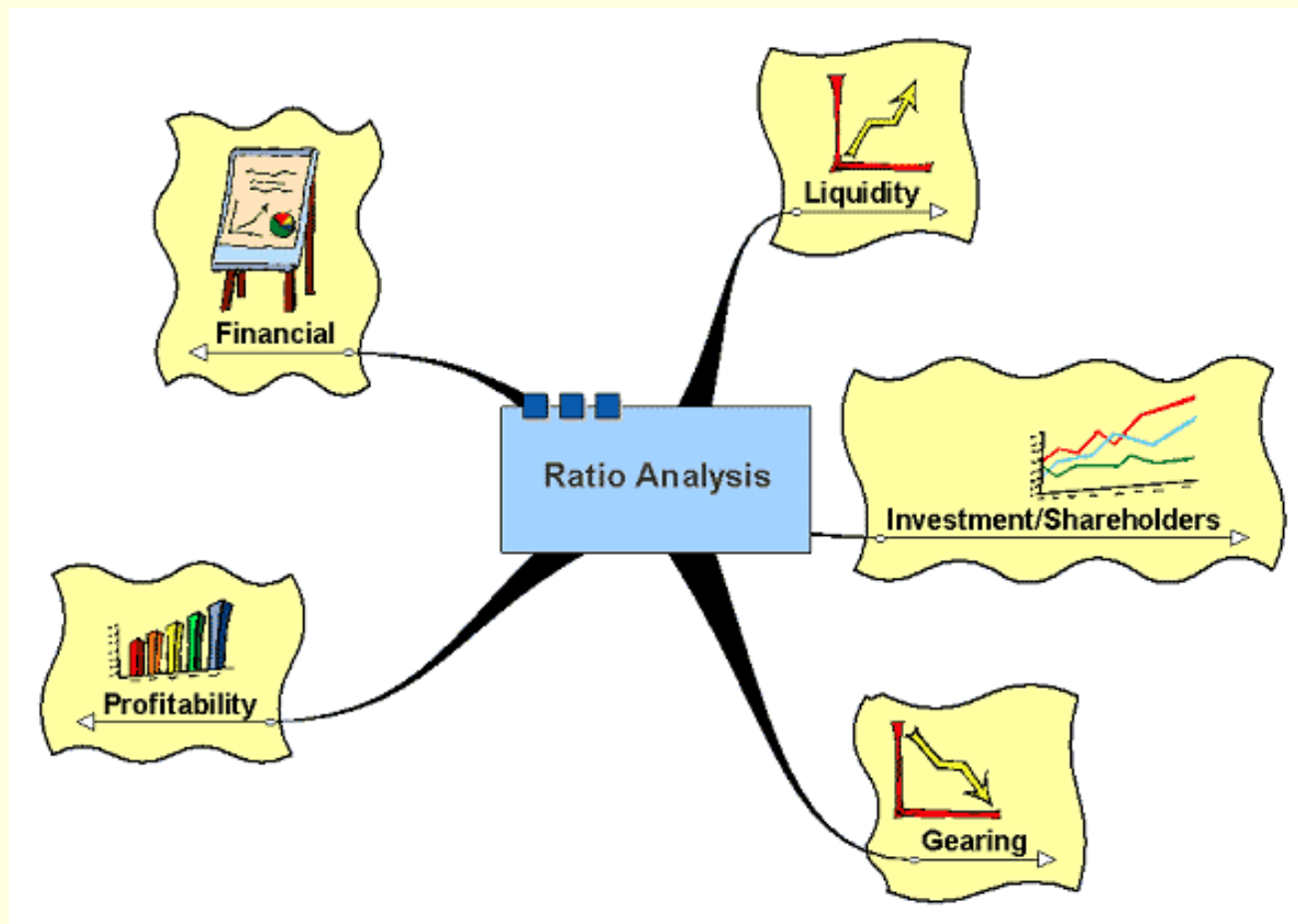
Finance For Non Finance Managers

Interpretation of financial statements

Use and limitations of accounting ratios

- **Establish trends from past years**
- **Benchmark against other businesses in the same industry**
- **Comparison with standards set by external organisations (e.g., a bank)**
- **Limitations**
 - **retrospective nature**
 - **different accounting policies**
 - **inflation**
 - **reliance on standards**
 - **economic climate**
 - **product life cycle**

Ratio Analysis



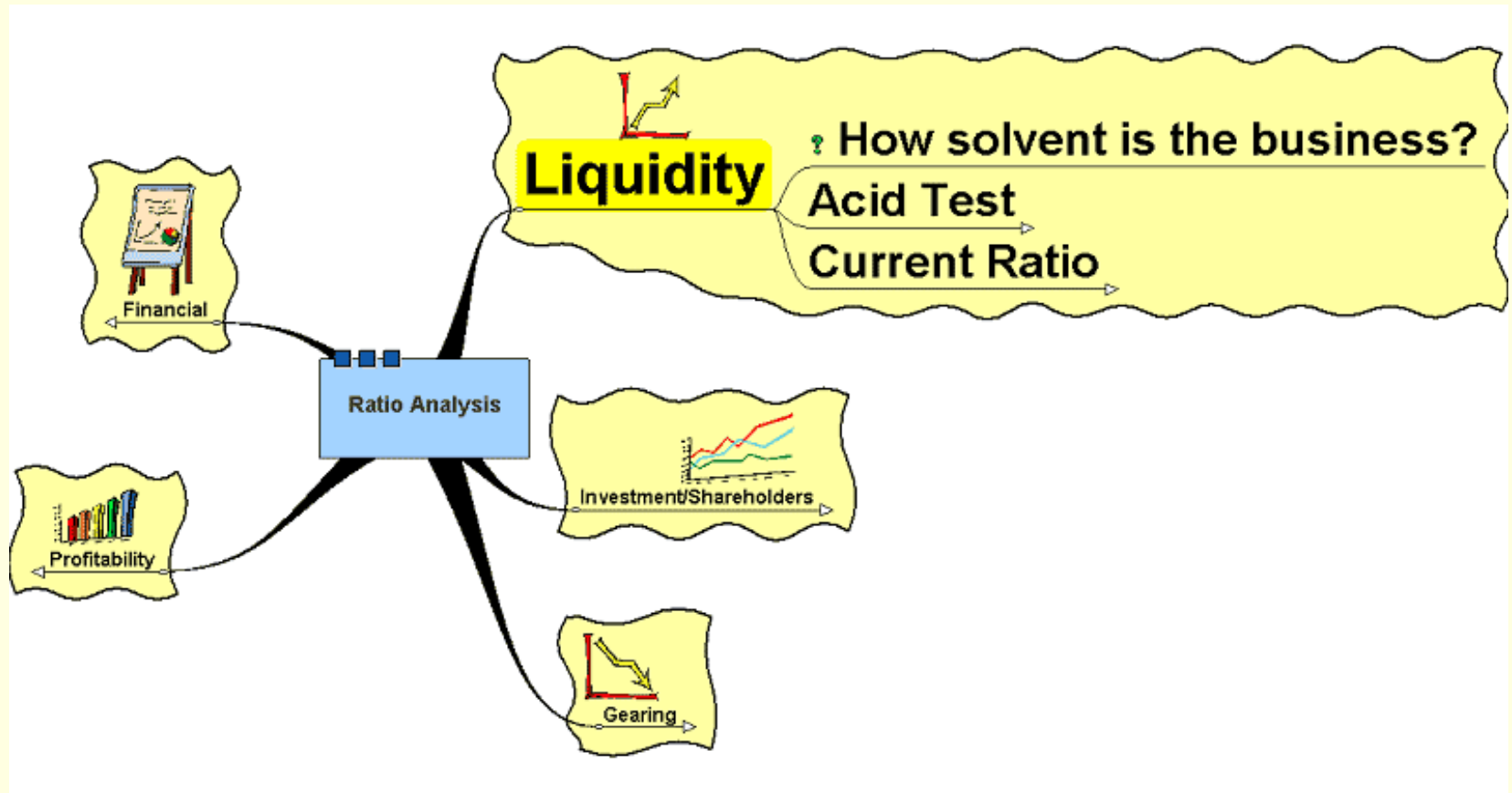
Ratio Analysis

- **Purpose:**
- To identify aspects of a business's performance to aid decision making
- Quantitative process – may need to be supplemented by qualitative factors to get a complete picture
- 5 main areas:

Ratio Analysis

1. **Liquidity** – the ability of the firm to pay its way
2. **Investment/shareholders** – information to enable decisions to be made on the extent of the risk and the earning potential of a business investment
3. **Gearing** – information on the relationship between the exposure of the business to loans as opposed to share capital
4. **Profitability** – how effective the firm is at generating profits given sales and or its capital assets
5. **Financial** – the rate at which the company sells its stock and the efficiency with which it uses its assets

Liquidity



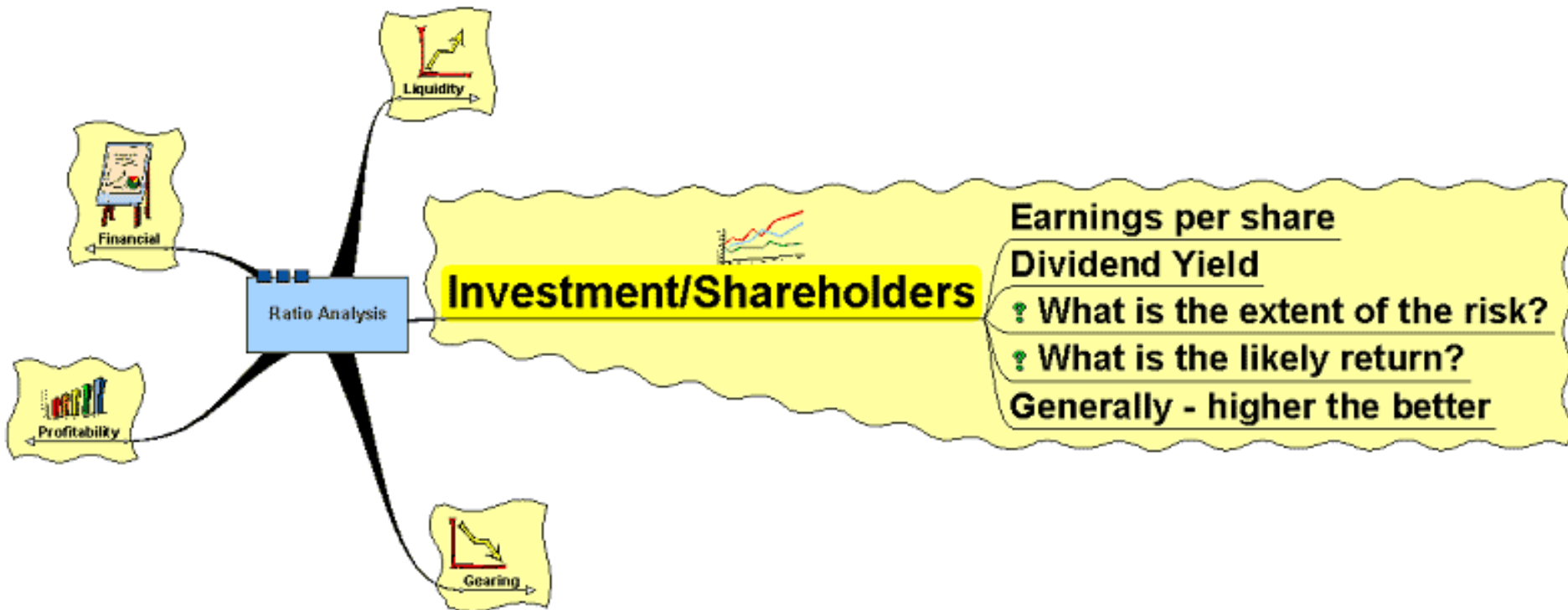
Acid Test

- Also referred to as the 'Quick ratio'
- **(Current assets – stock) : liabilities**
- 1:1 seen as ideal
- The omission of stock gives an indication of the cash the firm has in relation to its liabilities (what it owes)
- A ratio of 3:1 therefore would suggest the firm has 3 times as much cash as it owes – very healthy!
- A ratio of 0.5:1 would suggest the firm has twice as many liabilities as it has cash to pay for those liabilities. This ***might*** put the firm under pressure but is not in itself the end of the world!

Current Ratio

- Looks at the ratio between Current Assets and Current Liabilities
- **Current Ratio = Current Assets : Current Liabilities**
- Ideal level? – 1.5 : 1
- A ratio of 5 : 1 would imply the firm has £5 of assets to cover every £1 in liabilities
- A ratio of 0.75 : 1 would suggest the firm has only 75p in assets available to cover every £1 it owes
- Too high – Might suggest that too much of its assets are tied up in unproductive activities – too much stock, for example?
- Too low - risk of not being able to pay your way

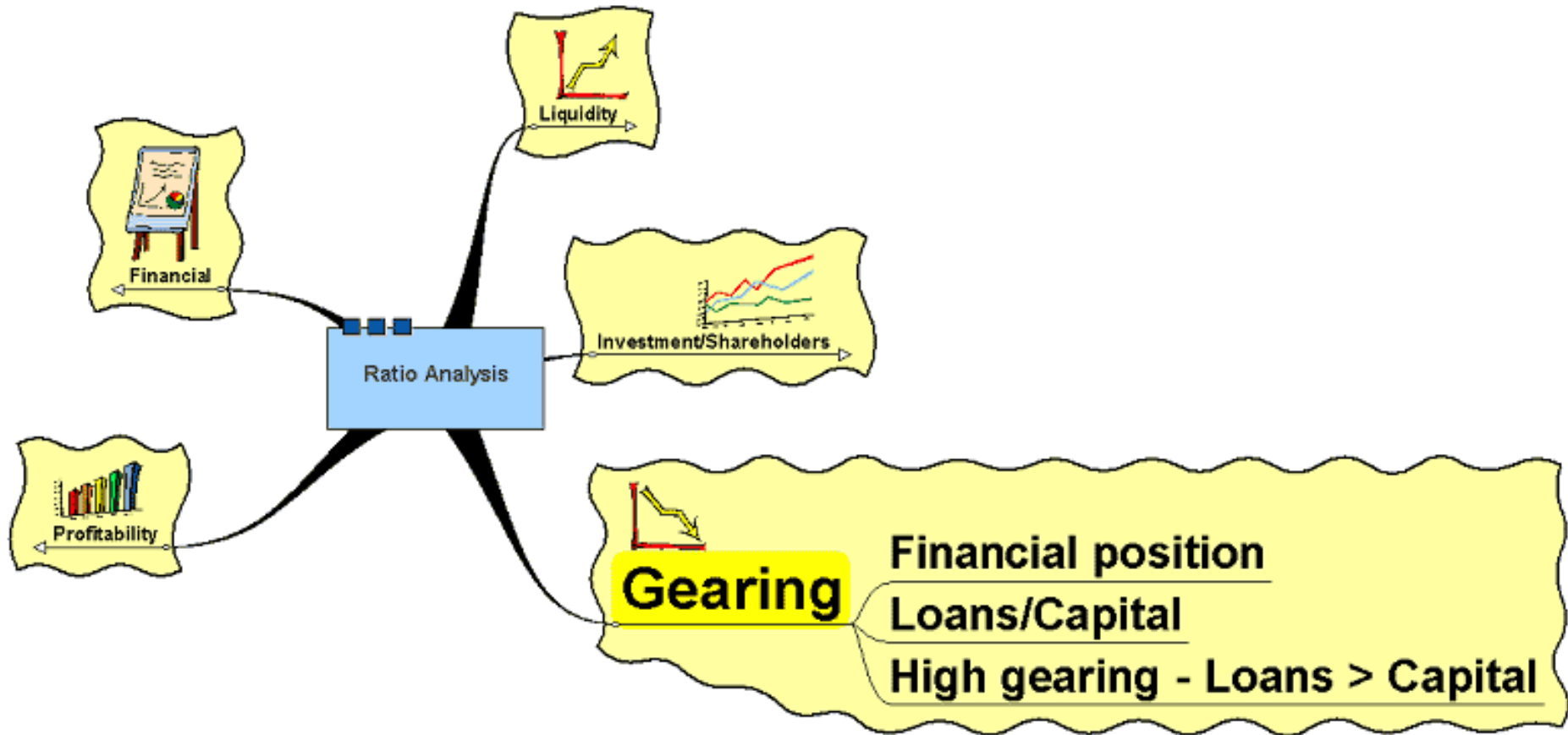
Investment/Shareholders



Investment/Shareholders

- **Earnings per share** – profit after tax / number of shares
- **Price earnings ratio** – market price / earnings per share – the higher the better generally. Comparison with other firms helps to identify value placed on the market of the business.
- **Dividend yield** – ordinary share dividend / market price x 100 – higher the better. Relates the return on the investment to the share price.

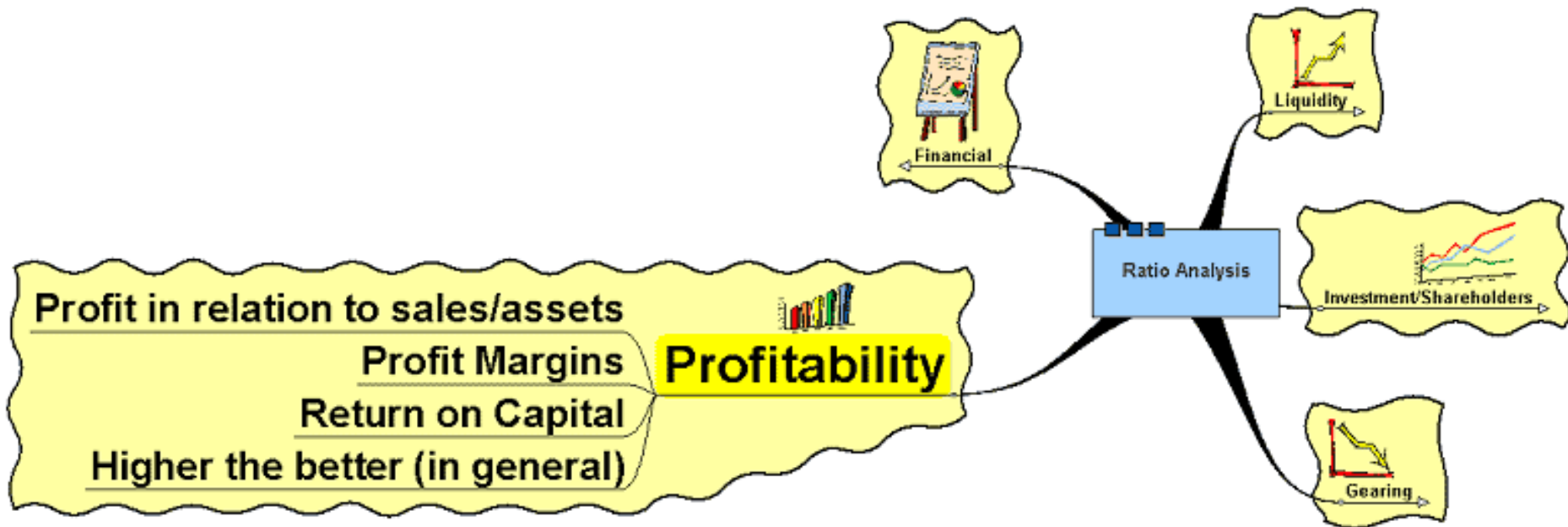
Gearing



Gearing

- **Gearing Ratio = Long term loans / Capital employed x 100**
- The higher the ratio the more the business is exposed to interest rate fluctuations and to having to pay back interest and loans before being able to re-invest earnings

Profitability



Profitability

- Profitability measures look at how much profit the firm generates from sales or from its capital assets
- Different measures of profit – gross and net
 - **Gross profit** – effectively total revenue (turnover) – variable costs (cost of sales)
 - **Net Profit** – effectively total revenue (turnover) – variable costs and fixed costs (overheads)

Profitability

- **Gross Profit Margin = Gross profit / turnover x 100**
- The higher the better
- Enables the firm to assess the impact of its sales and how much it cost to generate (produce) those sales
- A gross profit margin of 45% means that for every £1 of sales, the firm makes 45p in gross profit

Profitability

- **Net Profit Margin = Net Profit / Turnover x 100**
- Net profit takes into account the fixed costs involved in production – the overheads
- Keeping control over fixed costs is important – could be easy to overlook for example the amount of waste - paper, stationery, lighting, heating, water, etc.
 - e.g. – leaving a photocopier on overnight uses enough electricity to make 5,300 A4 copies. (1,934,500 per year)
 - 1 ream = 500 copies. 1 ream = £5.00 (on average)
 - Total cost therefore = £19,345 per year – or 1 person's salary

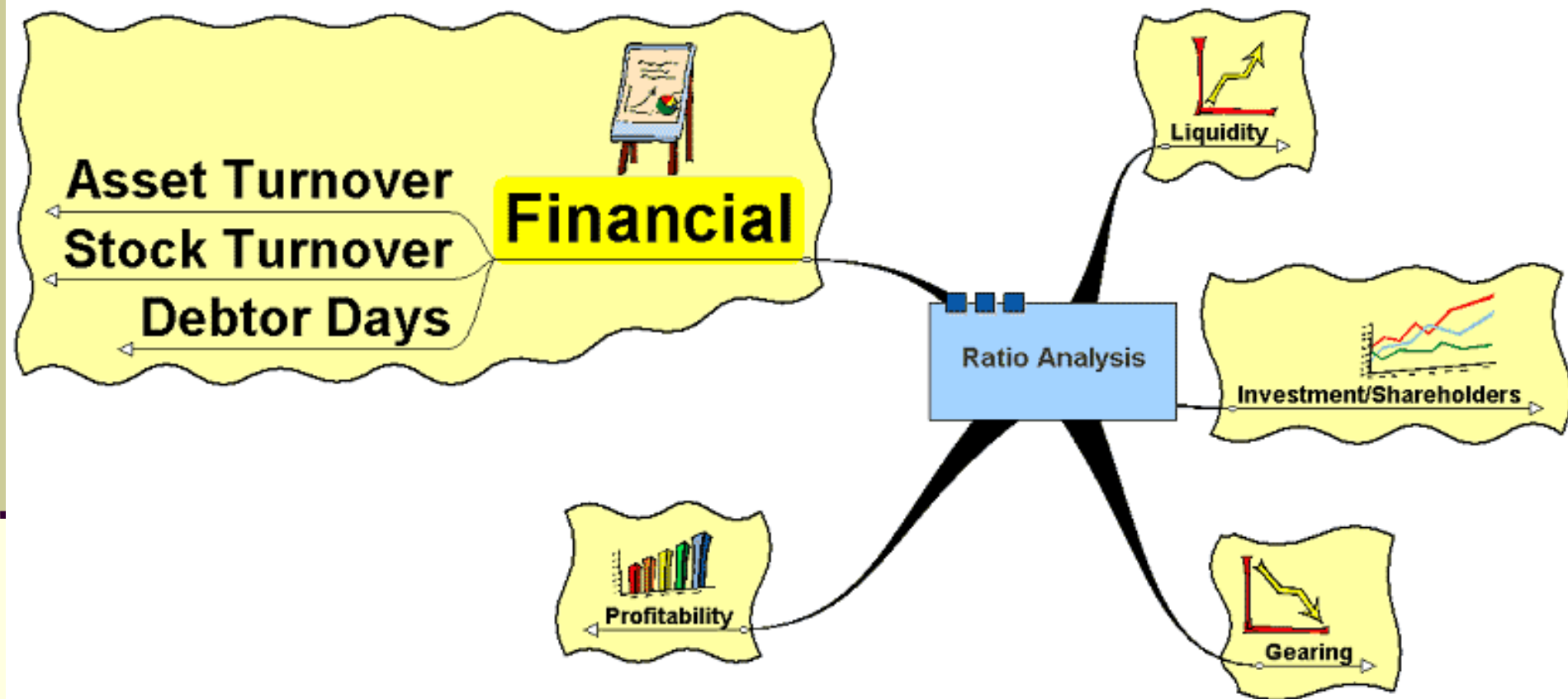
Profitability

- **Return on Capital Employed (ROCE) = Profit / capital employed x 100**
- Be aware that there are different interpretations of what capital employed means – see <http://www.bized.ac.uk/compfact/ratios/ror3.htm> for more information!

Profitability

- The higher the better
- Shows how effective the firm is in using its capital to generate profit
- A ROCE of 25% means that it uses every £1 of capital to generate 25p in profit
- Partly a measure of efficiency in organisation and use of capital

Financial



Asset Turnover

- **Asset Turnover = Sales turnover / assets employed**
- Using assets to generate profit
- Asset turnover x net profit margin = ROCE

Stock Turnover

- **Stock turnover = Cost of goods sold / stock expressed as times per year**
- The rate at which a company's stock is turned over
- A high stock turnover might mean increased efficiency?
 - But: dependent on the type of business – supermarkets might have high stock turnover ratios whereas a shop selling high value musical instruments might have low stock turnover ratio
 - Low stock turnover could mean poor customer satisfaction if people are not buying the goods (Marks and Spencer?)

Debtor Days

- **Debtor Days = Debtors / sales turnover x 365**
- Shorter the better
- Gives a measure of how long it takes the business to recover debts
- Can be skewed by the degree of credit facility a firm offers

Finance For Non Finance Managers

Break even analysis

Cost classification

- Fixed costs
- Variable costs

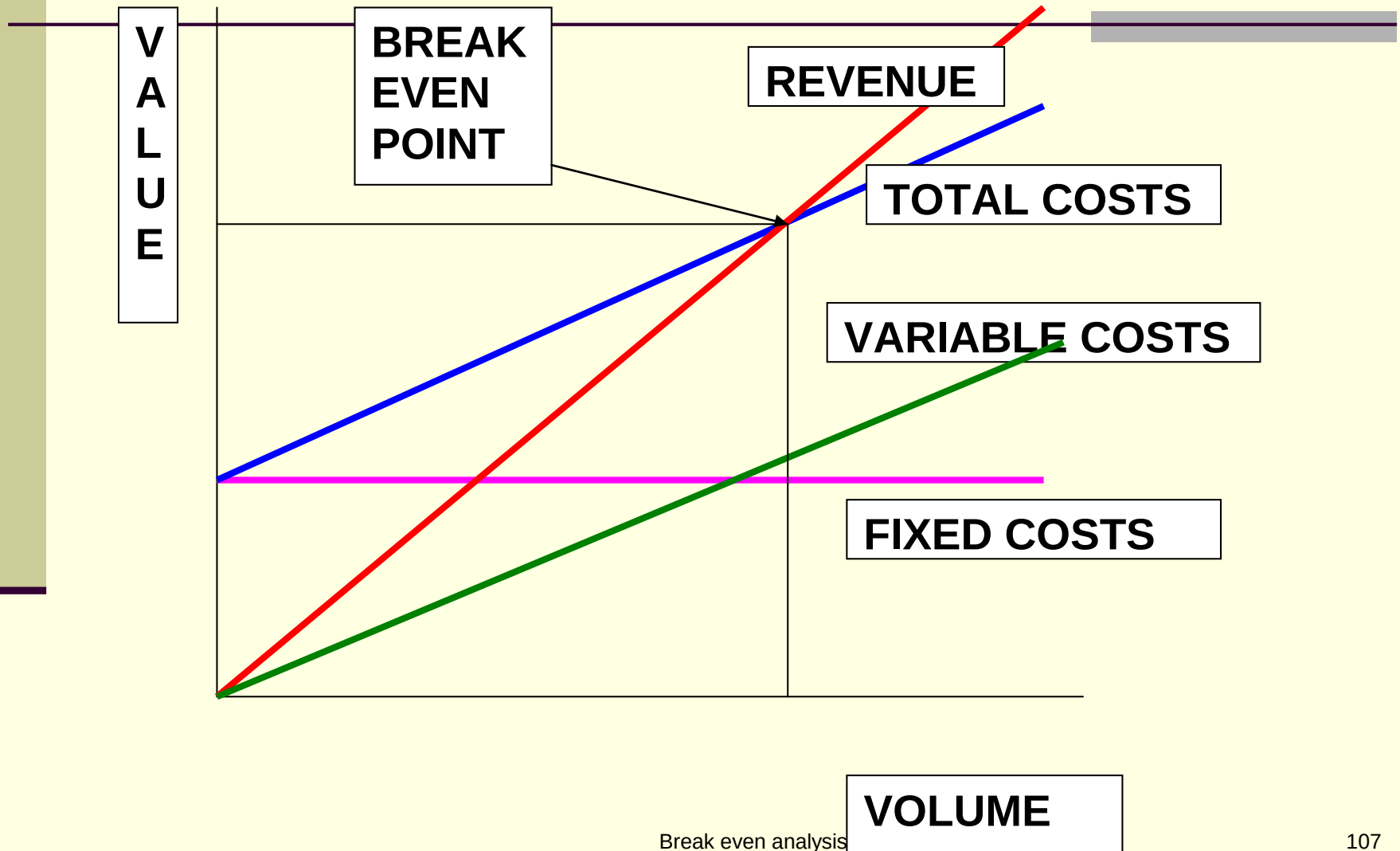
Marginal costing

- Contribution (marginal costing)
- Calculation (gross profit per unit)

The break even point

- Calculation
- Graphical representation

BREAK EVEN ANALYSIS



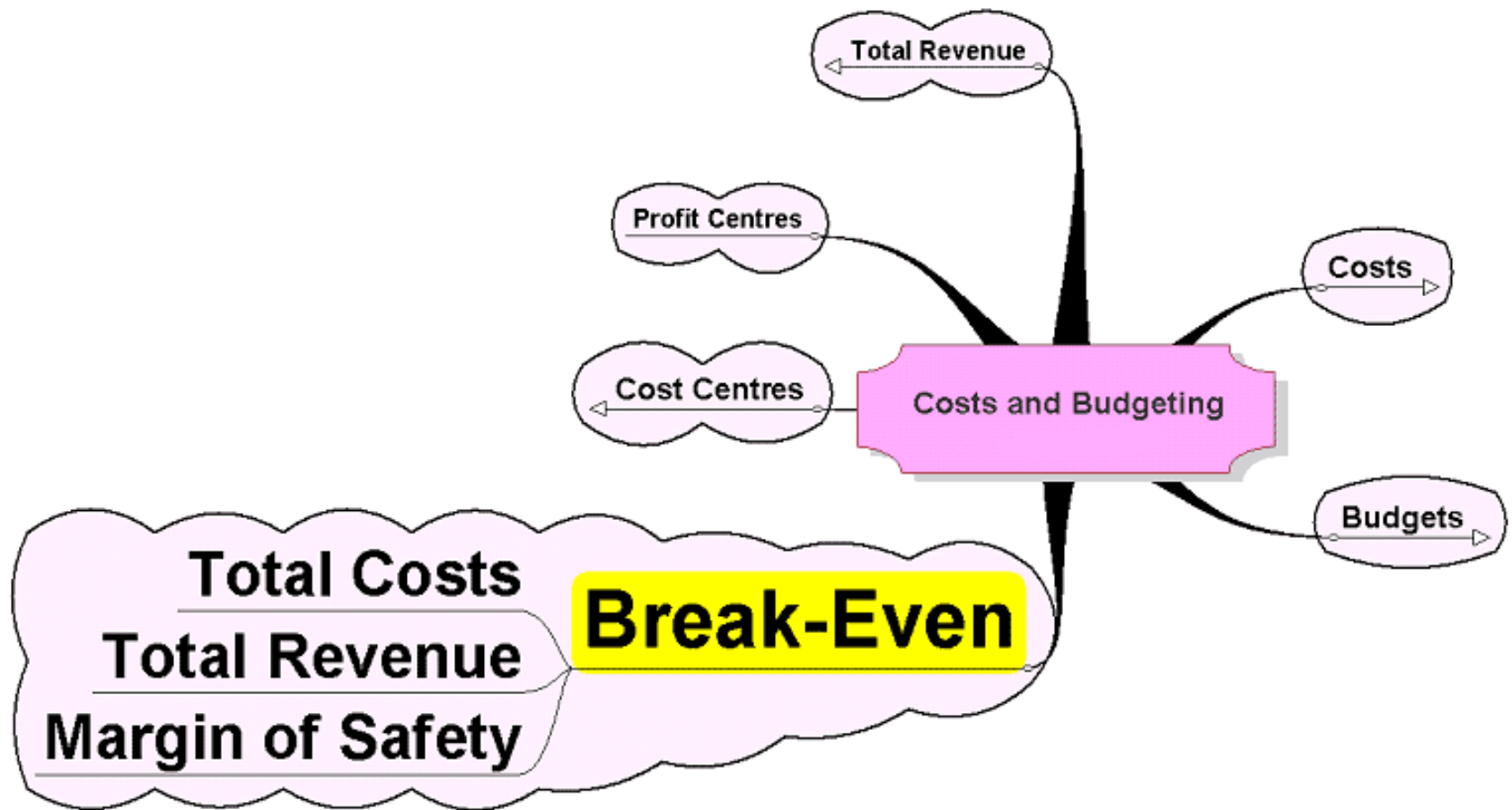
Controlling the break even point

- Increasing revenue
- Reducing variable costs
- Reducing fixed costs

Margin of safety

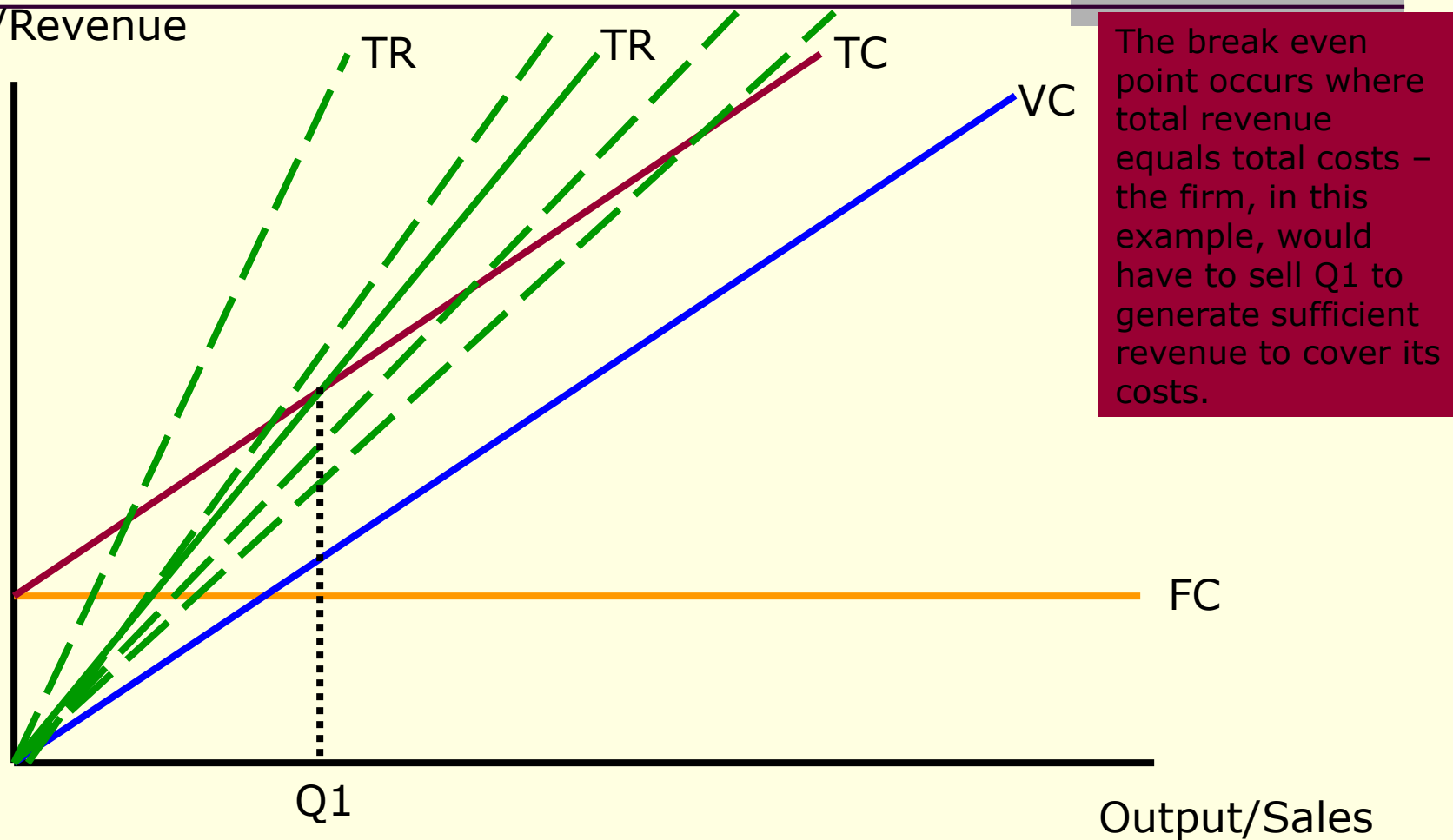
- Calculation
- Graphical representation

Break Even



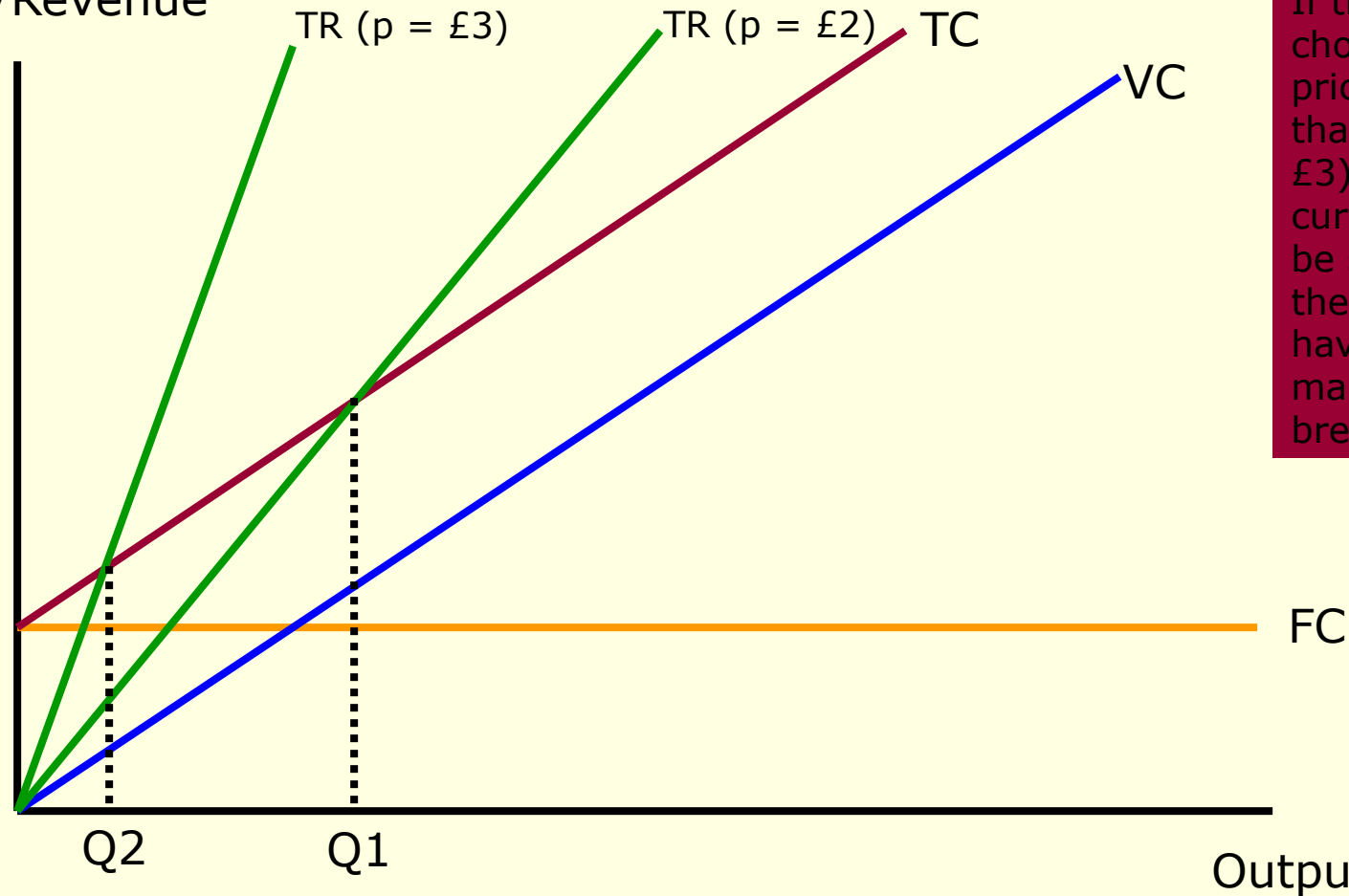
Break Even Analysis

Costs/Revenue



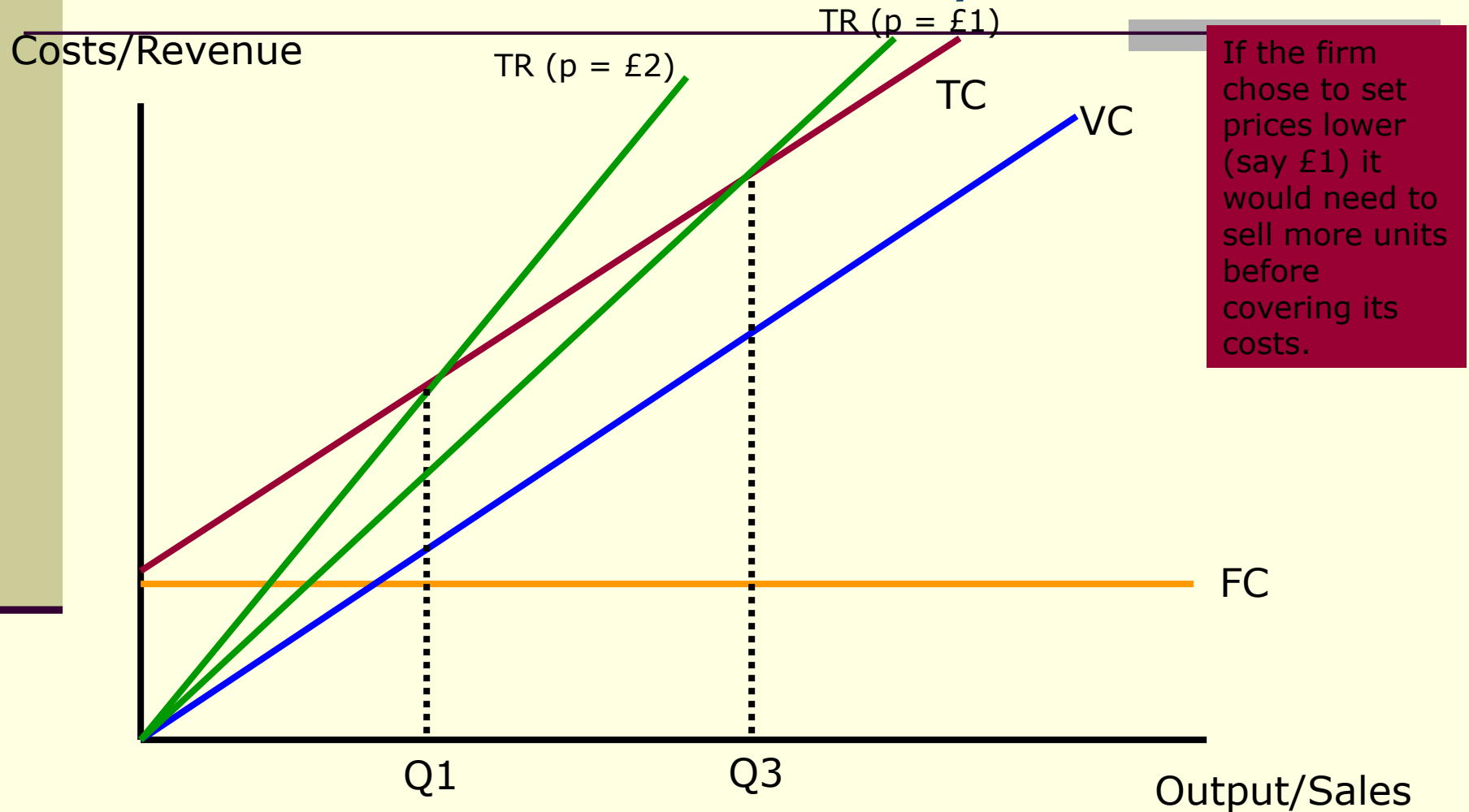
Break Even Analysis

Costs/Revenue

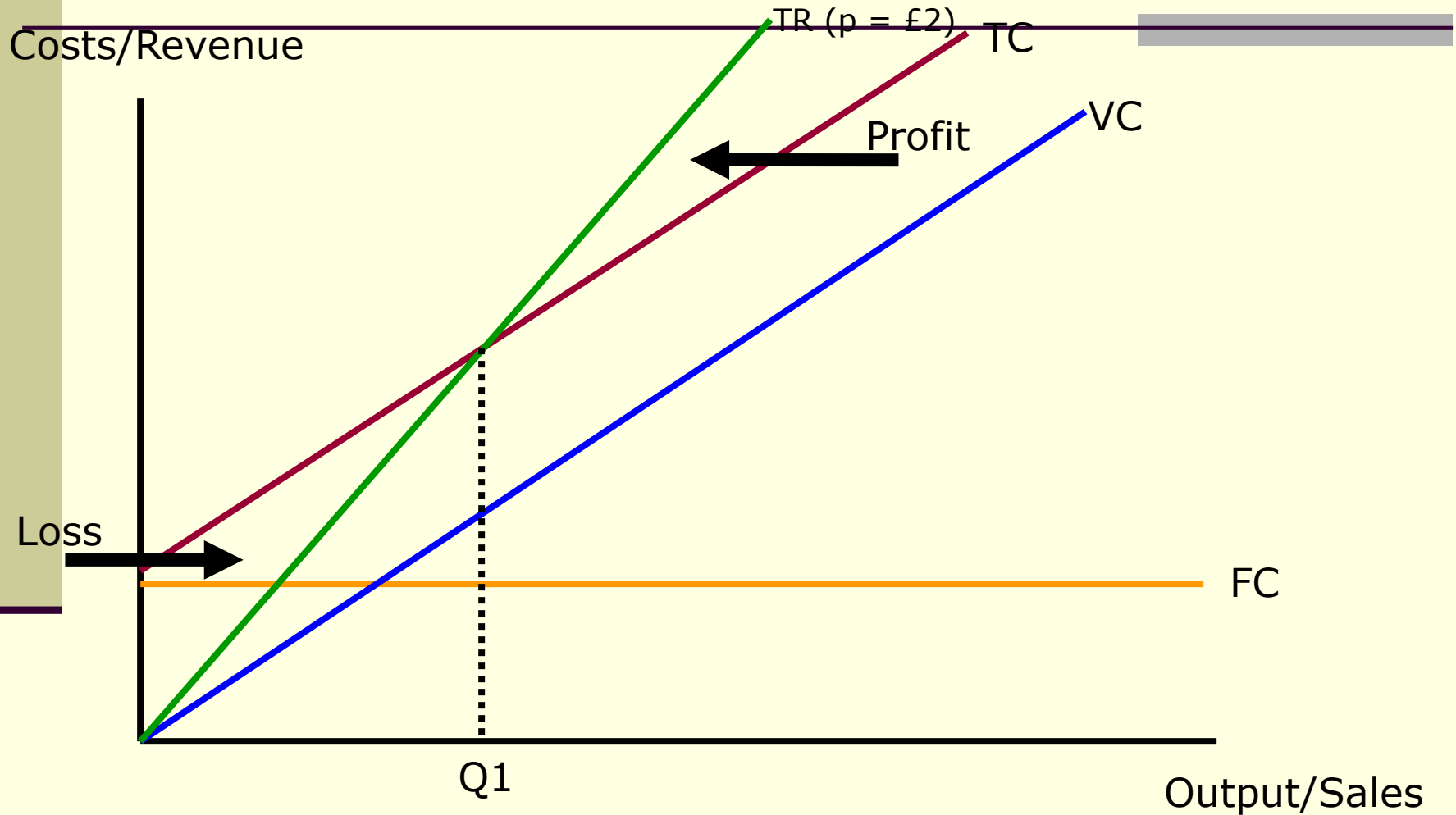


If the firm chose to set price higher than £2 (say £3) the TR curve would be steeper – they would not have to sell as many units to break even

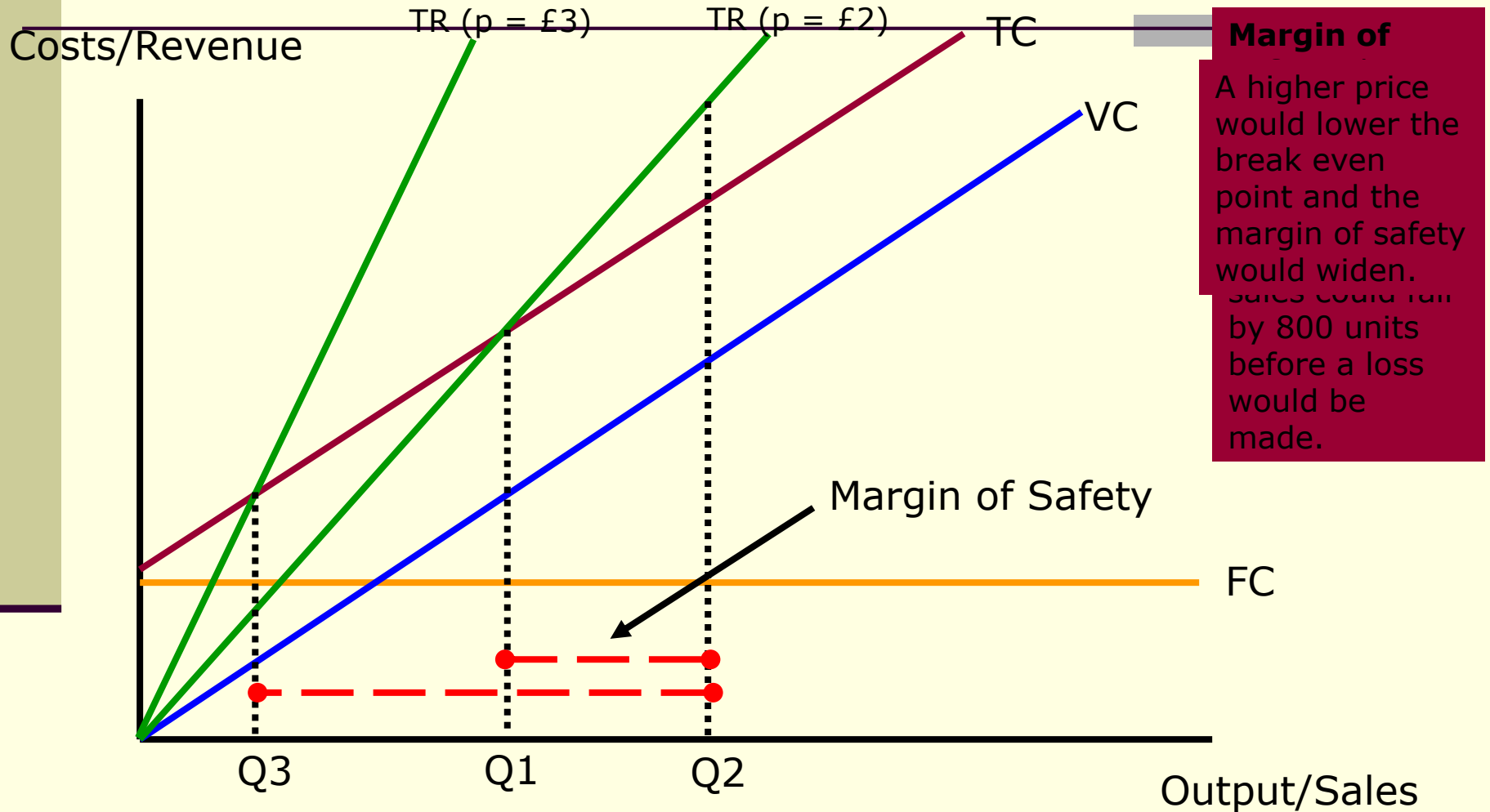
Break Even Analysis



Break Even Analysis



Break Even Analysis



Costs/Revenue

High initial FC.
Interest on debt
rises each year – FC
rise therefore.

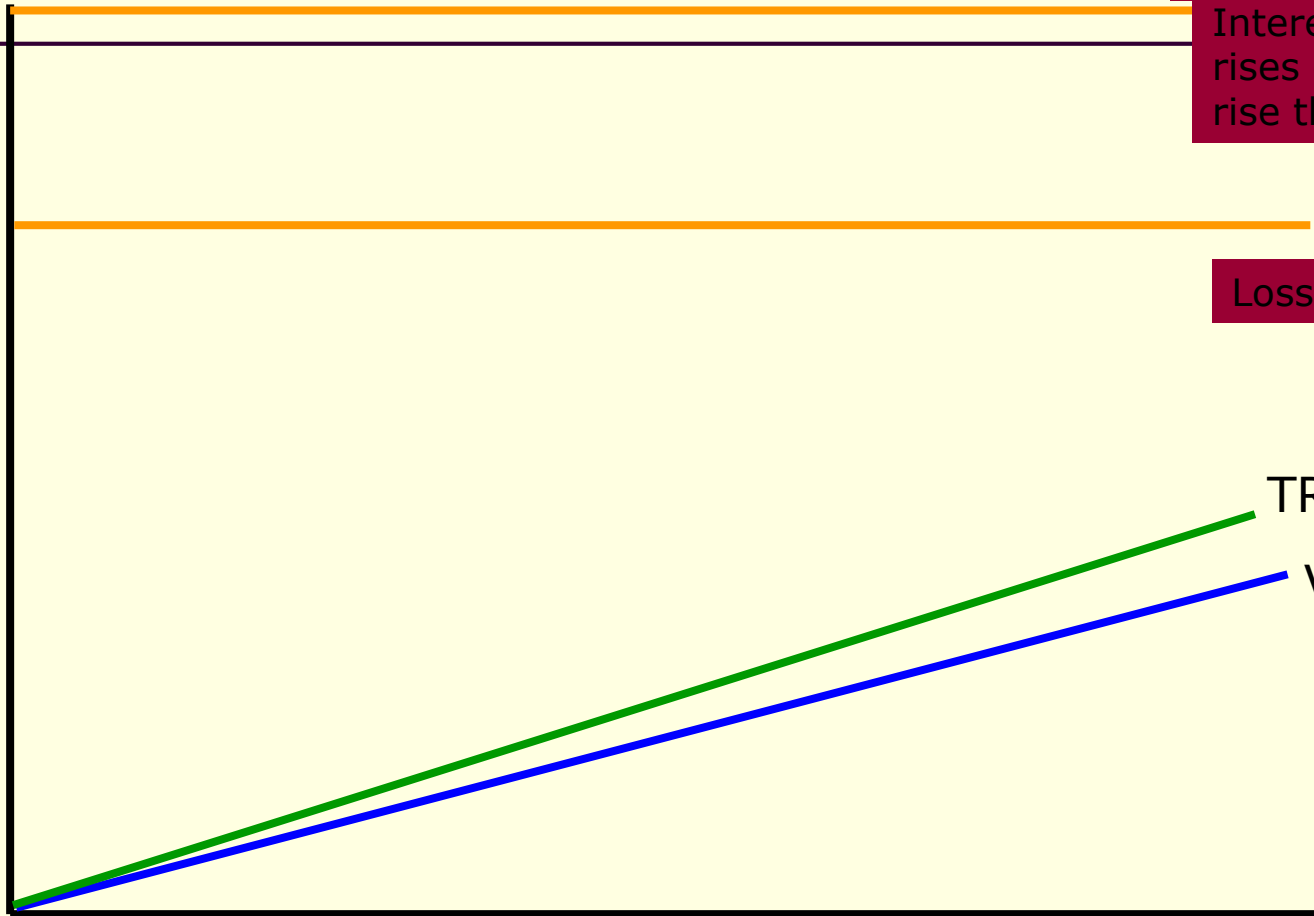
FC

Losses get bigger!

TR

VC

Output/Sales



Break Even Analysis

- Remember:
- A higher price or lower price does not mean that break even will never be reached!
- The break even point depends on the number of sales needed to generate revenue to cover costs – the break even chart is NOT time related!

Break Even Analysis

- Importance of **Price Elasticity of Demand**:
- **Higher prices** might mean fewer sales to break even but those sales may take a longer time to achieve
- **Lower prices** might encourage more customers but higher volume needed before sufficient revenue generated to break even

Break Even Analysis

- **Links of break even to pricing strategies and elasticity**
- **Penetration pricing** – ‘high’ volume, ‘low’ price
– more sales to break even
- **Market Skimming** – ‘high’ price ‘low’ volumes
– fewer sales to break even
- **Elasticity** – what is likely to happen to sales when prices are increased or decreased?

Finance For Non Finance Managers

Marginal costing and
decision making

Marginal costing

- Cost of producing one extra unit of output
- Increase in variable cost
- Fixed costs unchanged

Contribution

- Unit selling price
- less
- Unit marginal cost

Marginal costing

MARGINAL COSTING

Departmental profitability

	FURNITURE	CARPETS	CURTAINS	TOTAL
	£'000	£'000	£'000	£'000
Sales	3,000	1,500	1,000	5,500
Materials	1,500	1,050	333	2,850
Labour	300	250	100	650
Overheads (fixed)	600	300	300	1,200
TOTAL COSTS	2,400	1,600	700	4,700
PROFIT/(LOSS)	600	(100)	300	800

Using marginal costing

	FURNITURE	CARPETS	CURTAINS	TOTAL
	£'000	£'000	£'000	£'000
Sales	3,000	1,500	1,000	5,500
Materials	1,500	1,050	300	2,850
Labour	300	250	100	650
VARIABLE COSTS	1,800	1,300	400	3,500
CONTRIBUTION	1,200	200	600	2,000
Overheads (fixed)				1,200
PROFIT/(LOSS)				800

Marginal costing

Use of spare capacity

- Maximise extra contribution

Spare capacity

SPARE CAPACITY

100 UNITS ARE PRODUCED AND SOLD FOR £100 EACH

VARIABLE COST = £45 PER UNIT

FIXED OVERHEADS = £3,500

REVENUE = £10,000

VARIABLE COST = £4,500

FIXED COSTS = £3,500

PROFIT = £2,000

OFFER (A): 50 UNITS @ £80 EACH

OFFER (B): 100 UNITS @ £60 EACH

	<u>NOW</u>	<u>EXTRA 50 UNITS</u>	<u>EXTRA 100 UNITS</u>
<u>REVENUE</u>			
100 units	10,000	10,000	10,000
Extra 50 units		4,000	
Extra 100 units			6,000
	10,000	14,000	16,000
<u>COSTS</u>			
Variable	4,500	6,750	9,000
Fixed	3,500	3,500	3,500
	8,000	10,250	12,500
PROFIT	2,000	3,750	3,500

Extra 50 units @ £35

+1,750

Extra 100 units @ £15

+1,500

Marginal costing

Make or buy decisions

- Alternative uses of equipment
- Opportunity costs (the cost of NOT doing something due to the loss of profit)

MAKE OR BUY DECISIONS

Make or buy

CURRENT PRODUCTION 5,000 UNITS

INCREASE IN DEMAND 5,000 UNITS

**DO WE MAKE THE EXTRA 5000 UNITS IN-HOUSE?
OR DO WE BUY THEM IN FROM OUTSIDE?**

ALTERNATIVE 1: MAKE IN-HOUSE

Current cost structure:

VARIABLE COST £9.50 per unit

FIXED COST £5.50 per unit

TOTAL COST £15.00 per unit

ALTERNATIVE 2: BUY IN FROM OUTSIDE

QUOTED PRICE £10.00 per unit

DO WE COMPARE £10 WITH (a) £9.50 or (b) £15.00?

Marginal costing

Allocation of scarce resources

- Materials
- Skilled labour
- Factory space
- Finance
- Sales

LIMITING FACTORS – SCARCE RESOURCES

Scarce resources

	Model A	Model B
Unit selling price	£50	£100
Unit contribution	£20	£30
Labour hours per unit	2	4

*** Weekly labour hours available = 240

Weekly fixed overheads = £2,000

*** All output can be sold

Question – how many of each model to make next week?

	Model A	Model B
C/S ratio	40%	30%
Contribution per labour hour	£10	£7.50

Therefore choose to make model A

Proof:

Sales	(120 x £50)	£6,000	(60 x £100)	£6,000
Contribution	(120 x £20)	£2,400	(60 x £30)	£1,800
Fixed costs		£2,000		£2,000
Profit		£400		(£200)

Marginal costing

Finance For Non Finance Managers

Investment appraisal

Project appraisal

- Sources of finance
- Cost of capital
- Estimated total cost
- Tax considerations
- Working capital requirements
- Project audit
- Economic climate, training, capacity, etc.

Payback

- Cash outflow
- Cash inflows
- Time for initial outflow to be recouped
- Earlier cashflows more accurate
- Ignores later cashflows
- Ignores timing of cashflows

Accounting rate of return

- Average total net cash inflow
- Average cost
- Uses all cashflows
- Ignores timing of cashflows

Discounted cash flow

- Converts all cashflows to net present value
- All cashflows and their timing are used
- Cost of capital difficult to find
- Project with highest NPV not always the best

Discounted cash flow factors

■ Discounted cash flow factors

■ Original investment	£100.00	$100/100=$	1.000
■ Interest in year 1 (at 10%)	£10.00		
■ Investment after 1 year	£110.00	$100/110=$	0.909
■ Interest in year 2 (at 10%)	£11.00		
■ Investment after 2 years	£121.00	$100/121=$	0.826
■ Interest in year 3 (at 10%)	£12.10		
■ Investment after 3 years	£133.10	$100/133.1=$	0.751
■ Interest in year 4 (at 10%)	£13.31		
■ Investment after 4 years	£146.41	$100/146.41=$	0.683
■ Interest in year 5 (at 10%)	£14.64		
■ Investment after 5 years	£161.05	$100/161.05=$	0.621

DCF

WHICH PROJECT?

		PROJECT A	PROJECT B
Year 0	Initial cost	20,000	28,000
Cashflow	Year 1	8,000	10,000
	Year 2	12,000	10,000
	Year 3	5,000	8,000
	Year 4	4,000	9,000
	Year 5	2,000	9,000

Discounted cash flow

Year	DCF factor	Project A	Project B
0	1.000	(20,000)	(28,000)
1	0.909	7,272	9,090
2	0.826	9,912	8,260
3	0.751	3,755	6,008
4	0.683	2,732	6,147
5	0.621	1,242	5,589
NPV		4,913	7,094

Investment appraisal

Internal rate of return

- Calculate NPV of project using several different costs of capital
- IRR occurs when NPV is zero

WHICH PROJECT?

IRR

Internal rate of return

Cost of capital

10%	4,913	7,094
18%	1,375	1,099
20%	619	(142)
22%	(85)	(1283)
24%	(758)	(2,372)

SUMMARY

Payback	2 years	3 years
Accounting rate of return	11%	13%
NPV at 10%	£4,913	£7,094
Internal rate of return	22%	20%

Finance For Non Finance Managers

Financial resources

Sources of initial finance

- Owners capital
- Family
- Friends
- The public – shares in limited company
- Banks
- Grants
- Venture capital
- Donations

Sources of future finance

- From retained profits
- Banks
- Other lenders
- Share issue (limited company only)

Funding for fixed assets

- Long term hire purchase
- Long term lease
- Long term loans
- Mortgages

Funding for working capital

- Short term hire purchase
- Short term lease
- Short term loans
- Bank overdraft
- Factoring for debtors

Finance considerations

- Cost of borrowing varies according to lender's risk and economic conditions
- Interest rates vary over time and may be fixed or variable
- Lenders' security may be required

Finance For Non Finance Managers

Equity structure and gearing

Ordinary shares

- Share issues
- Nominal value of share
- Issue price of share
- Share premium
- Bonus shares
- Rights issues
- Dividends
- ...are paid from retained profits

Preference shares

- Fixed percentage dividends
- Paid out of profits
- Preferential treatment

Reserves

- Revenue reserves can easily be paid out
Retained profits
- Capital reserves cannot easily be paid out
Share premium
Revaluation reserve

Loans and debentures

- Loans may be secured or unsecured
- Debentures are loans from outside lenders
- They are stocks that can be traded like shares
- They represent debt to the company
- Are repaid on a fixed date in the future
- Carry a fixed rate of interest

Gearing

- Debt
 - long term loans and debentures
 - preference share capital
- Equity
 - ordinary share capital
 - reserves
- Gearing = Debt / Equity
 - or Debt / (Debt + Equity)
 - expressed as a percentage
- Low gearing is more attractive to a lender
- High gearing can accelerate the growth of company

Finance For Non Finance Managers

Financial SWOT and Risk

Strengths

- Product
- Niche market
- Staff
- Good Liquidity
- High Profitability

Weaknesses

- Product
- Reliance on few customers
- Staff
- Poor Liquidity
- Low Profitability

Opportunities

- New markets
- High future demand
- New investment/expansion
- Good financial management

Threats

- Loss of contracts
- Market entrants
- Future legislation
- Staff illness
- Poor financial management

Risk analysis

- Evaluation of risk
- Insurance
 - building
 - contents
 - motor
 - employee
 - public liability
 - professional indemnity

Finance For Non Finance Managers

Forecasting

Business Statements

- Profit and Loss account
- Balance Sheet
- Cashflow Statement
- Notes to the Accounts
- Director's Report
- Auditor's Report

Budgets

- Financial plans agreed in advance
- Based on business objectives
- Sources of cash
- Spending plans
- Requires information regarding.....

Budgetary requirements

- Sales
- Expenses
- Personnel
- Cash
- Capital expenditure
- Research and development costs

Budgetary control

- Can be used to control income and expenditure
- Draw attention to inefficiency and waste
- Provide clear targets
- Allow corrective action
- Clarify individual management responsibilities
- Can improve communication

Estimates required

- Inflation
- The economic cycle
- Changes in demand
- Seasonal fluctuations

Cashflow

- Importance
- Profitability
- Control of capital expenditure
- Stockpiling
- Allowing too much credit
- Taking too much credit
- Overborrowing
- Overtrading

Finance For Non Finance Managers

Financial forecasting

Planning

- The need to plan
- The planning process
- Sources of information
 - historical
 - blank paper (start from scratch)

The need to budget

- Cash requirements
 - borrowings
 - overdraft
- Scale of operations
 - equipment
 - staff

Types of budgets

- Company
- Departmental
- The budgetary process

Forecasts

- Profit
- Cash flow

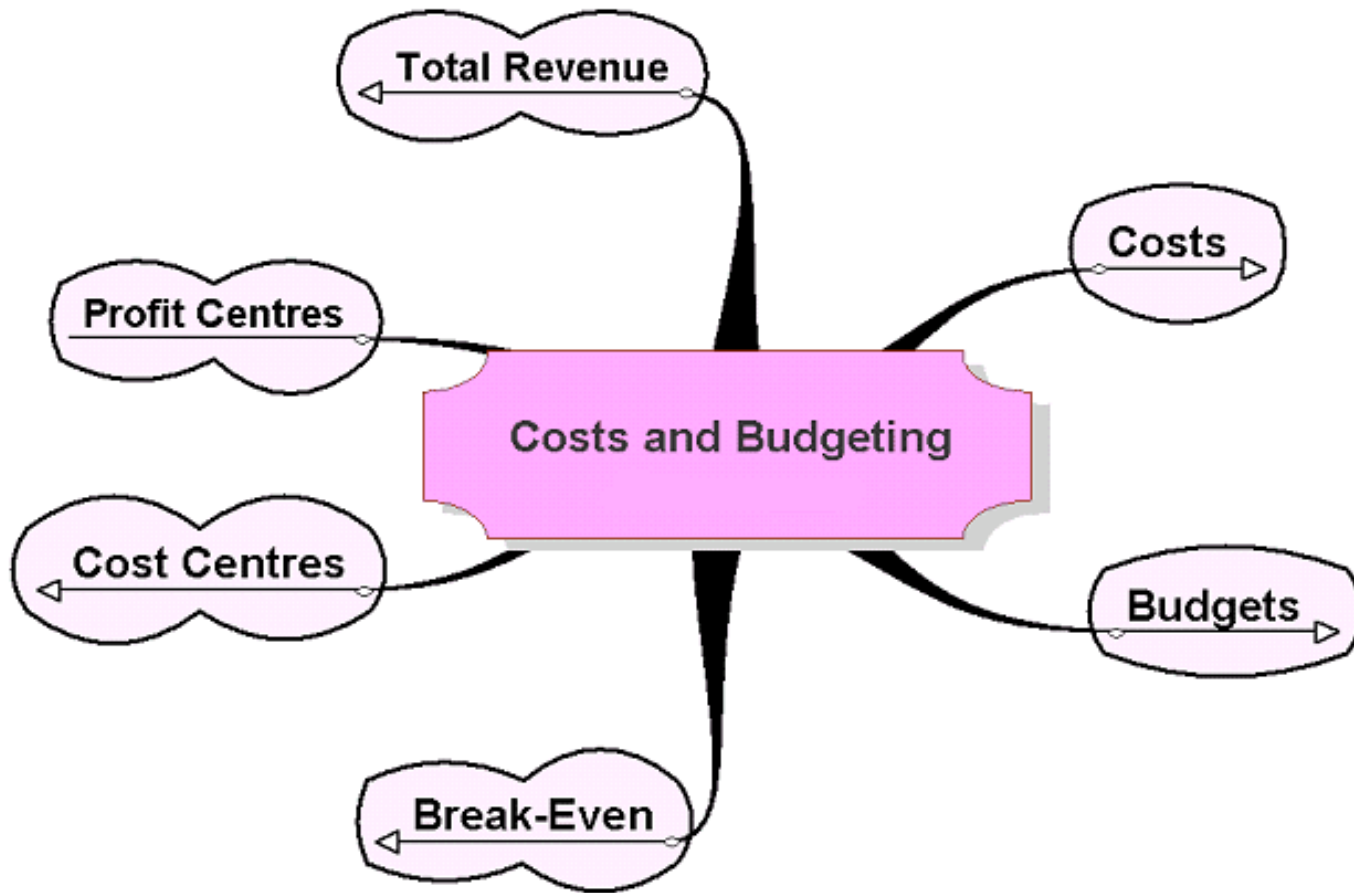
Incorrect forecasting

- Consequences
- Liquidity
- Profitability

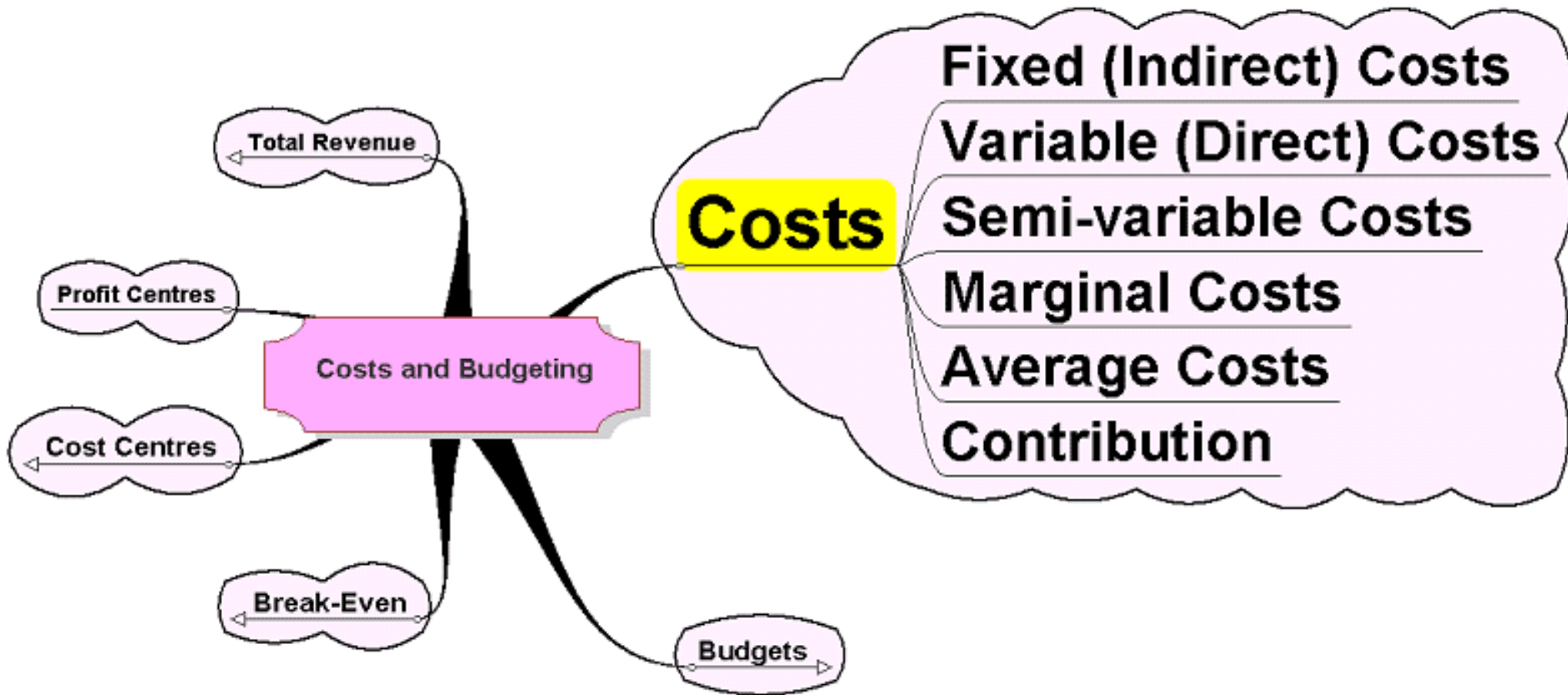
Finance For Non Finance Managers

Costs and Budgeting

Costs and Budgeting



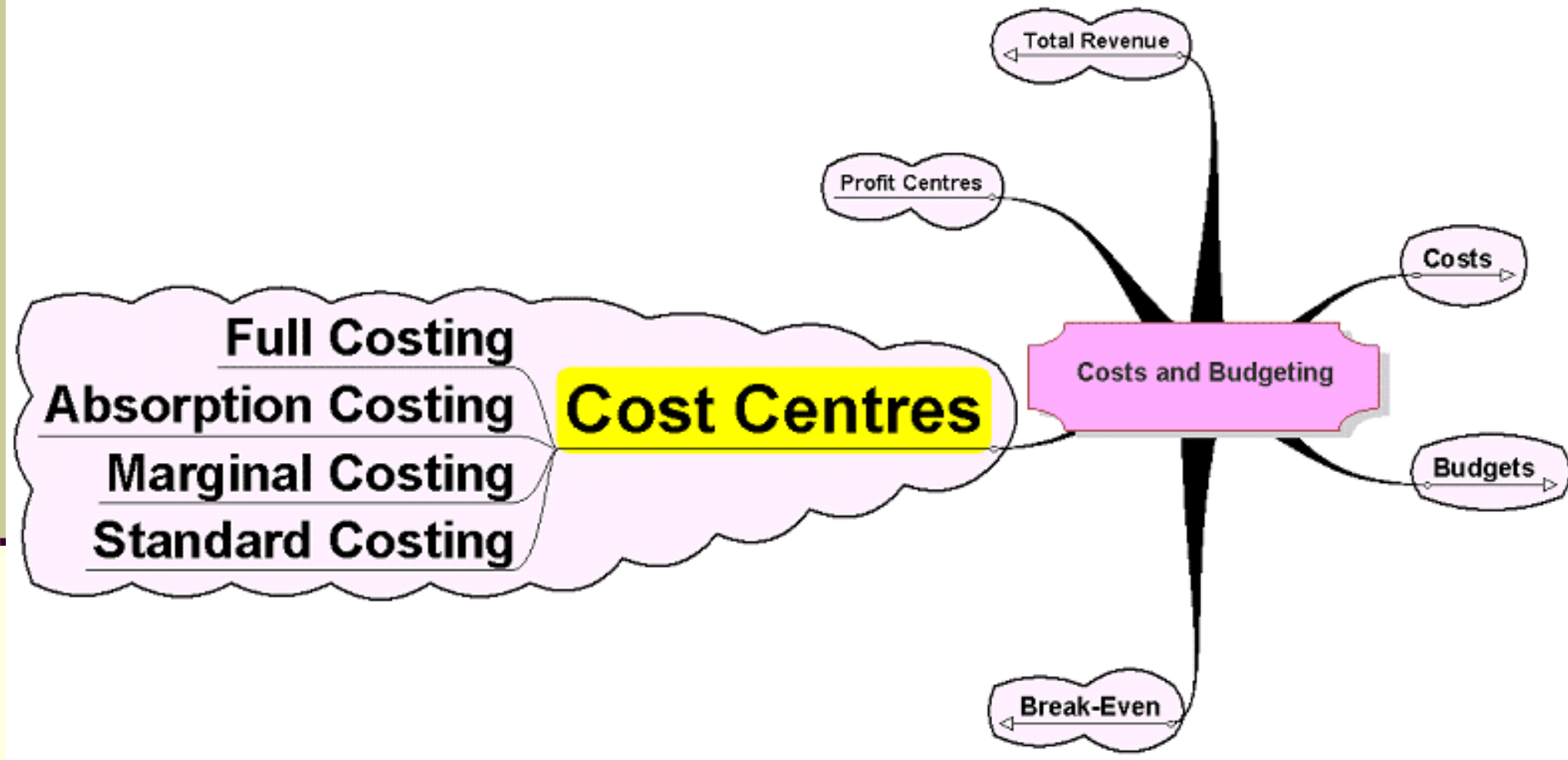
Costs



Costs

- Anything incurred during the production of the good or service to get the output into the hands of the customer
- The customer could be the public (the final consumer) or another business
- Controlling costs is essential to business success
- Not always easy to pin down where costs are arising!

Cost Centres



Cost Centres

- Parts of the business to which particular costs can be attributed
- In large businesses this can be a particular location, section of the business, capital asset or human resource/s
- Enable a business to identify where costs are arising and to manage those costs more effectively

Full Costing

- A method of allocating indirect costs to a range of products produced by the firm.
 - e.g. if a firm produces three products - **a**, **b**, and **c** - and has indirect costs of £1 million, assume proportion of direct costs of 20% for **a**, 55% for **b** and 25% for **c**
 - Indirect costs allocated as 20% of 1 million to **a**, 55% of £1 million to **b** and 25% of £1 million to **c**

Absorption Costing

- All costs incurred are allocated to particular cost centres – direct costs, indirect costs, semi variable costs and selling costs
- Allocates indirect costs more accurately to the point where the cost occurred

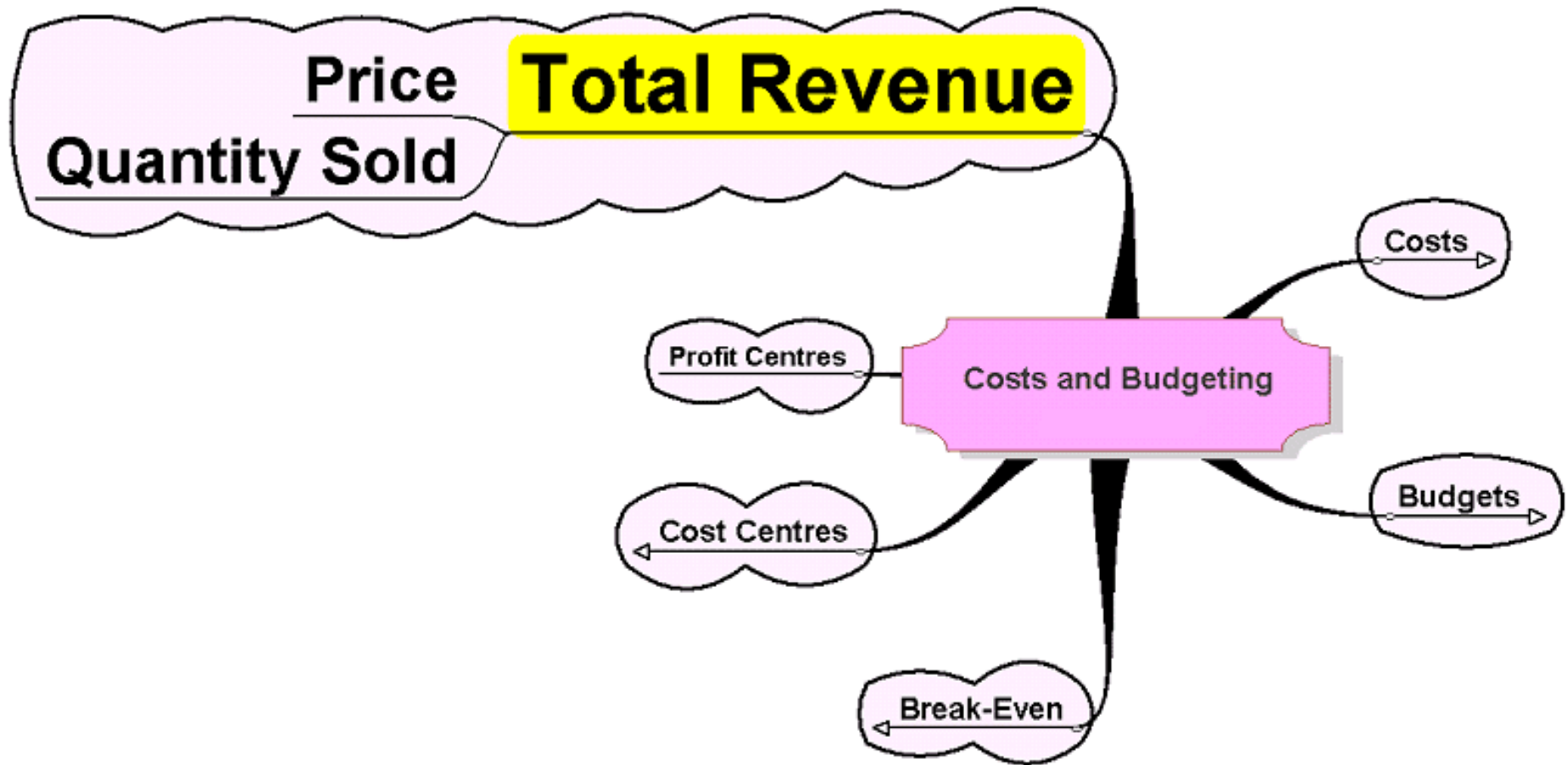
Marginal Costing

- The cost of producing one extra unit of output (the variable costs)
- Selling price – MC = Contribution
- Contribution is the amount which can contribute to the overheads (fixed costs)

Standard Costing

- The expected level of costs associated with the production of a good/service
 - **Actual costs – Standard costs = Variance**
- Monitoring variances can help the business to identify where inefficiencies or efficiencies might lie

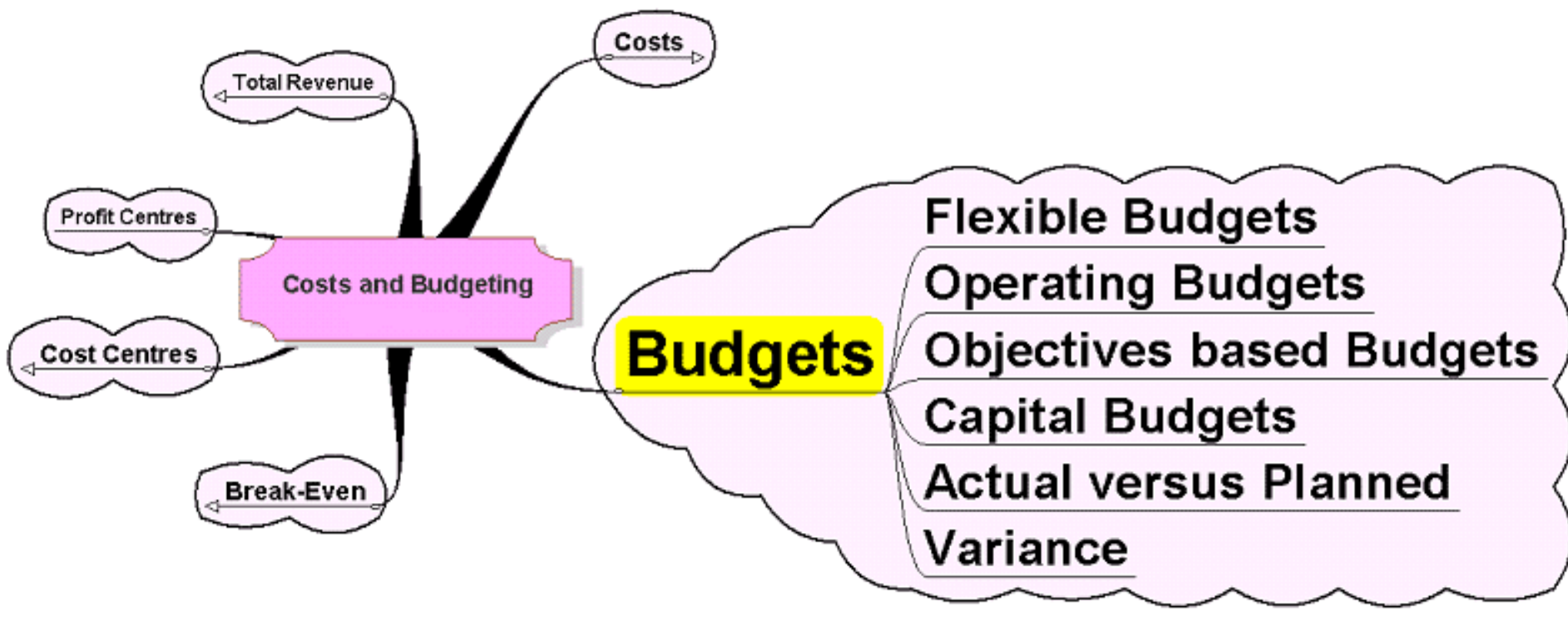
Total Revenue



Total Revenue

- **Total Revenue = Price x Quantity Sold**
- **Price** can be raised or lowered to change revenue – price elasticity of demand important here
 - Different pricing strategies can be used – penetration, psychological, etc.
- **Quantity Sold** can be influenced by amending the elements of the marketing mix – 7 Ps

Budgets



Budgets

- **Estimates of the income and expenditure of a business or a part of a business over a time period**
- Used extensively in planning
- Helps establish efficient use of resources
- Help monitor cash flow and identify departures from plans
- Maintains a focus and discipline for those involved

Budgets

- **Flexible Budgets** – budgets that take account of changing business conditions
- **Operating Budgets** – based on the daily operations of a business
- **Objectives Based Budgets** - Budgets driven by objectives set by the firm
- **Capital Budgets** – Plans of the relationship between capital spending and liquidity (cash) in the business

Budgets

- **Variance** – the difference between planned values and actual values
 - **Positive variance** – actual figures less than planned
 - **Negative variance** – actual figures above planned