

MNB1601

LECTURER : Mr ABRAM PHENYA

Email: Phenyam@unisa.ac.za
Tel(012) 429 -4493

Ground rules

- Cell phones off

Purpose of the section

- The purpose of the financial management section is to equip you with the **necessary skills and knowledge** of the introductory fundamental principles of financial management, with clear emphasis on short-term, long-term financing decision making, short-term and long-term investment decision-making.
- This is done by means of a thorough explanation of the relevant theory and principles involved, as well as a practical approach to applications used by business practitioners all over the world

Key learning outcomes

- Discuss the financial function and financial management
- Explain the concepts in financial management
- Identify objectives and fundamental principles of financial management
- Calculate cost-volume-profit relations
- Calculate present value and future value
- Calculate and interpret financial ratios

Financial management function (pg 408)



Financial Manager's Tasks (page 420)

- ◎ **Investment decision-making**

(assets management)

(page 453) 13.8

- ◎ **Financing decision making**

(financing)

(page 474) 13.10

Investment decisions making (page 438)

LONG-TERM INVESTMENT

- Land and buildings
- Plant and equipments
- Vehicles

SHORT-TERM INVESTMENT

- Cash
- Marketable securities
- Debtors
- Inventory
- Pre-paid expenses

Financing decisions making

LONG-TERM FINANCING

- Ordinary shares
- Preference shares
- Long-term debt

SHORT-TERM FINANCING

- Trade creditors
- Bank overdraft
- Arrear expenses

Balance sheet/finance/investment decision making

<u>LONG-TERM INVESTMENT</u>		<u>LONG-TERM FINANCING</u>	
-Land and buildings	R1 00	- Ordinary shares	R1 10
-Plant and equipments	R 90	- Preference shares	R 90
-Vehicles	<u>R 80</u>	- Long-term debt	<u>R 70</u>
	R 270		R270
<u>SHORT-TERM INVESTMENT</u>		<u>SHORT-TERM FINANCING</u>	
-Cash	R 50	-Trade creditors	R 30
-Marketable securities	R 40	-Bank overdraft	R 60
-Debtors	R 30	-Arrear expenses	<u>R 50</u>
-Inventory	<u>R 20</u>		<u>R140</u>
	R140		
Total	<u>R 410</u>	Total	<u>R410</u>

Fundamental principle, basic concepts (pages420-452)

● BASIC CONCEPTS

- **Balance sheet**- fixed assets, current assets, shareholders interest, owners equity, long and short-term funds
- **Income statement**- income, costs, profit

● FUNDAMENTAL PRINCIPLES

- risk-return principle
- cost-benefit principle
- time value of money principle
- analysis of the financial statement

Scope of the finance section

- ◉ Basic concepts, fundamental principles
- ◉ Investment decision-making
- ◉ Financing decision-making

Total fixed costs & fixed per unit (Rent)

Units	Total fixed cost Rent	Fixed cost per unit Unit price	Comment
1	R300	R300	Total fixed cost (R300) remain constant while fixed cost per unit changes from R300 to R75 as units increases
2	R300	R150	
3	R300	R100	
4	R300	R75	

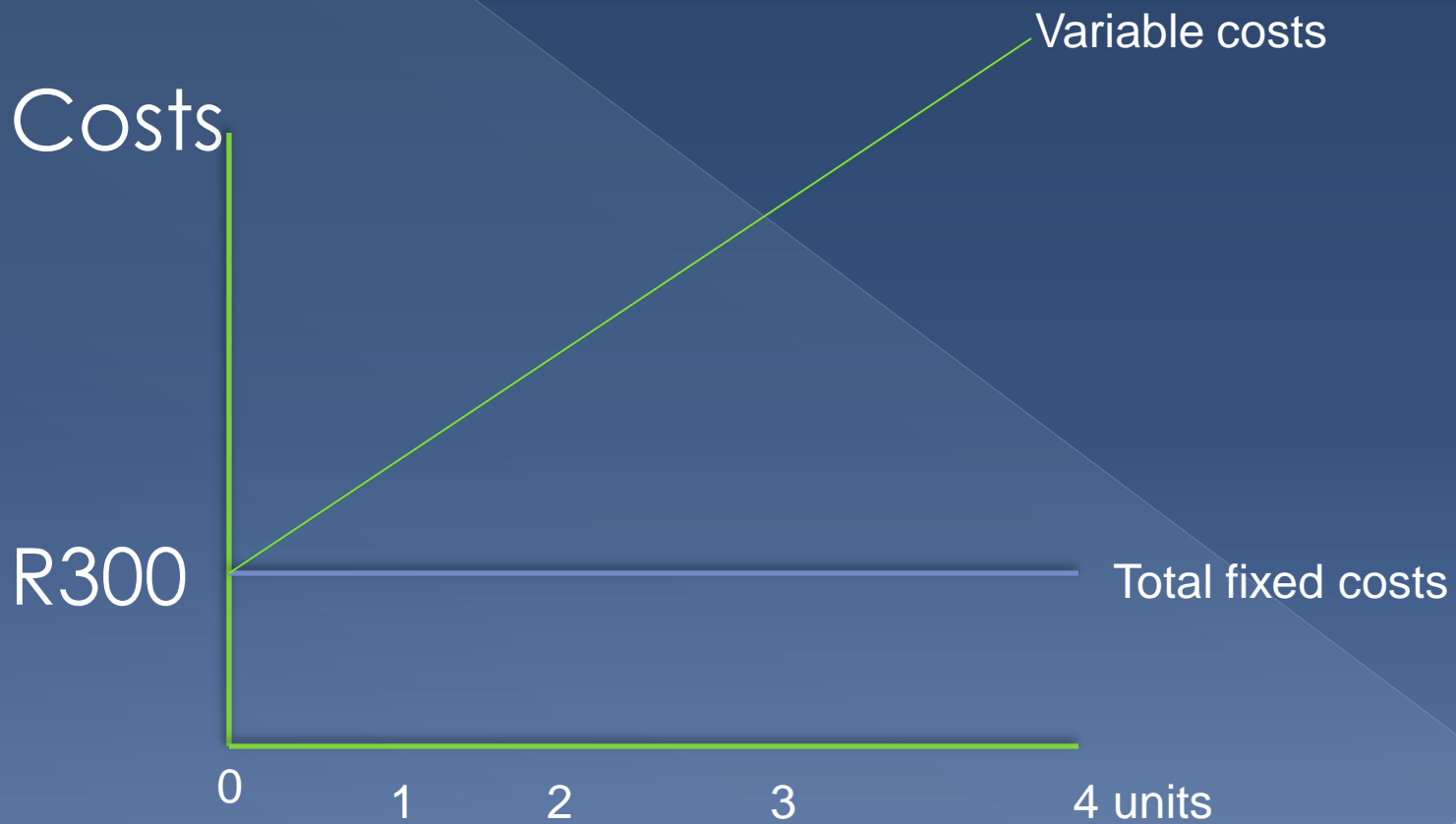
Total variable costs & variable cost per unit (Employees/salaries)

Units	Variable cost per unit	Total variable cost	Comment
1	R5	R5	Total variable cost stays the same when employees increases while the total changes
2	R5	R10	
3	R5	R15	
4	R5	R20	

Fixed and variable costs

- ◉ Total fixed cost is **constant**
- ◉ Fixed per unit **changes**
- ◉ Total variable cost **changes**
- ◉ Variable cost per unit is **constant**

Total costs (pages 425-426)



Breakeven analysis

- With the breakeven analysis we can determine whether we make a **loss**, **profit** or we **breakeven** (income = costs, where the profit is zero)

$$N = \frac{F}{SP - V} \quad (\text{book, page 429})$$

Where

F = total fixed costs

Sp = selling price per unit

V = variable cost per unit

Example .

- Total fixed cost R90 000
- Variable cost per jersey R30
- Selling price per jersey R110

Calculate the break even in unit for K Zee

$$N = \frac{F}{SP-V}$$

K-ZEE : Answer

$$N = R90\,000 / (R110 - R30) = 1\,125 \text{ units}$$

E
SP-V

(page 429)

Example .

- Total fixed cost R90 000
- Total variable cost R30 000
- Total selling price R50 000
- Fixed cost per unit R9

Calculate the break even in unit for K Zee

$$N = \frac{F}{SP-V}$$

Solution

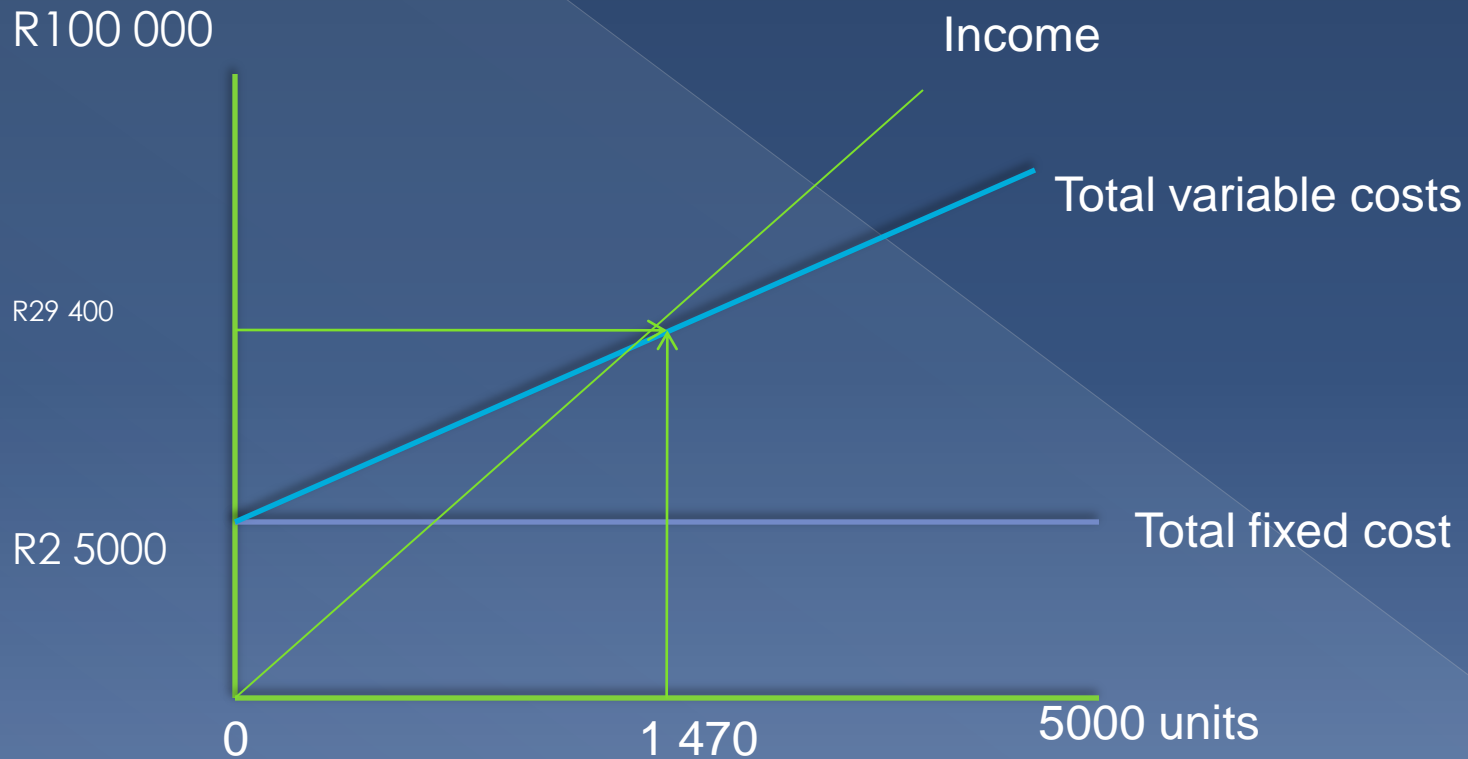
- ◎ Units $R90\ 000/9 = 10\ 000$
- ◎ Sp/unit $R50\ 000/10\ 000 = R5$
- ◎ V/unit $R30\ 000/10\ 000 = R3$
- ◎ $R90\ 000/R5 - R3 = 45\ 000$ units

Break-even: study guide page

- Total fixed costs R25 000
- Fixed cost per unit R5
- Total variable cost R15000
- Total sales R100 000

$$N = R25000 / (R20 - R3) = 1\ 470 \text{ units}$$

Total costs (pages 426-429)



Time value of money

- Future value of cash flow (R100)
- Present value of cash flow (R100)
- =====
- Tables will be provided
- Calculator is allowed (not programmable)

Interest tables

	Future value factors		
Period			
	5%	10%	15%
1	1.0500	1.100	1.1500
2	1.1025	1.210	1.3225
3	1.1576	1.3310	1.5209
4	1.215	1.4641	1.7490

Period	Discounting factors/Present value factors		
	5%	10%	15%
1	0.9524	0.9091	0.8696
2	0.9070	0.8264	0.7561
3	0.8638	0.7513	0.6575
4	0.8227	0.6830	0.5718

Time value of money

- Calculate the **Present Value** of the following cash flow amounts received at the end of each year, given an interest rate of 10%.

○ Year	Cash flow
1	R1000
2	R2 000
3	R 800

Interest tables

	Future value factors		
Period			
	5%	10%	15%
1	1.0500	1.100	1.1500
2	1.1025	1.210	1.3225
3	1.1576	1.3310	1.5209
4	1.215	1.4641	1.7490

Period	Discounting factors/Present value factors		
	5%	10%	15%
1	0.9524	0.9091	0.8696
2	0.9070	0.8264	0.7561
3	0.8638	0.7513	0.6575
4	0.8227	0.6830	0.5718

Time value of money

- Calculate the Present Value of the following cash flow amounts received at the end of each year, given an interest rate of 10%.

○ Year	Cash flow
1	R1000
2	R2 000
3	R 800

Interest tables

	Future value factors		
Period			
	5%	10%	15%
1	1.0500	1.100	1.1500
2	1.1025	1.210	1.3225
3	1.1576	1.3310	1.5209
4	1.215	1.4641	1.7490

Period	Discounting factors/Present value factors		
	5%	10%	15%
1	0.9524	0.9091	0.8696
2	0.9070	0.8264	0.7561
3	0.8638	0.7513	0.6575
4	0.8227	0.6830	0.5718

Cont....

Year	Cash flow	PVIF@10%	PV
1	R1 000	0.9091	R 909.10
2	R2 000	0.8264	R1 652.80
3	R 800	0.7513	R 601.04
		Total PV	R3 162.14

Time value of money

- Calculate the **Future Value** of the following cash flow amounts received at the end of each year, given an interest rate of 10%.

○ Year	Cash flow
1	R1000
2	R2 000
3	R 800

Interest tables

	Future value factors		
Period			
	5%	10%	15%
1	1.0500	1.100	1.1500
2	1.1025	1.210	1.3225
3	1.1576	1.3310	1.5209
4	1.215	1.4641	1.7490

Period	Discounting factors/Present value factors		
	5%	10%	15%
1	0.9524	0.9091	0.8696
2	0.9070	0.8264	0.7561
3	0.8638	0.7513	0.6575
4	0.8227	0.6830	0.5718

Cont....

Year	Cash flow	PVIF@10%	PV
1	R1 000	1.210	R1 210
2	R2 000	1.100	R2 200
3	R 800	1	R 800
		Total PV	R4 210

Analysis of financial statement

- Income statement

(Learn all accounts in this statement)

- Balance sheet

(Learn all accounts in balance sheet)

Analysis of the financial statement

- ① Understand the structure of the financial statements
- ① Define the group of ratios
- ① Practice each ratio
- ① Use income statement and balance sheet to calculate ratios
- ① Interpret ratios/compare ratio
- ① Improve ratio

Reasons for analyses

- Profitability
- Liquidity
- Solvency
- Performance

Income statement

TABLE 3.4

**Baker Corporation Income
Statement (\$000) for the Year
Ended December 31, 2006**

Sales revenue	\$1,700
Less: Cost of goods sold	<u>1,000</u>
Gross profits	<u>\$ 700</u>
Less: Operating expenses	
Selling expense	\$ 70
General and administrative expenses	120
Lease expense ^a	40
Depreciation expense	<u>100</u>
Total operating expense	<u>\$ 330</u>
Earnings before interest and taxes (EBIT)	<u>\$ 370</u>
Less: Interest expense	<u>70</u>
Net profits before taxes	<u>\$ 300</u>
Less: Taxes (rate = 40%)	<u>120</u>
Net profits after taxes	<u>\$ 180</u>
Less: Preferred stock dividends	<u>10</u>
Earnings available for common stockholders	<u><u>\$ 170</u></u>
Earnings per share (EPS) ^b	\$1.70

^aLease expense is shown here as a separate item rather than included as interest expense as specified by the FASB for financial reporting purposes. The approach used here is consistent with tax reporting rather than financial reporting procedures.

^bCalculated by dividing the earnings available for common stockholders by the number of shares of common stock outstanding ($\$170,000 \div 100,000$ shares = \$1.70 per share).

Balance sheet/finance/investment decision making

<u>LONG-TERM INVESTMENT</u>		<u>LONG-TERM FINANCING</u>	
-Land and buildings	R1 00	- Ordinary shares	R1 10
-Plant and equipments	R 90	- Preference shares	R 90
-Vehicles	<u>R 80</u>	- Long-term debt	<u>R 70</u>
	R 270		R270
<u>SHORT-TERM INVESTMENT</u>		<u>SHORT-TERM FINANCING</u>	
-Cash	R 50	-Trade creditors	R 30
-Marketable securities	R 40	-Bank overdraft	R 60
-Debtors	R 30	-Arrear expenses	<u>R 50</u>
-Inventory	<u>R 20</u>		<u>R140</u>
	R140		
Total	<u>R 410</u>	Total	<u>R410</u>

Define the ratio

- ◉ Liquidity ratios refer indicate the ability of the business to meet short-term obligation
- ◉ Solvency ratios indicate ability of a business to repay its debts from the sale of the assets on cessation of its activities

- ◎ Cash R60 000
- ◎ Marketable securities R30 000
- ◎ Inventory R40 000
- ◎ Trade creditors R20 000
- ◎ Arrear expenses R50 000

Calculations (example)

- Current ratio = Current assets/current liabilities
- Cash R60 000
- Marketable securities R30 000
- Inventory R40 000
- Trade creditors R20 000
- Arrear expenses R50 000
- Fixed assets R10 000
- Current ratio = 2
- 2:1
- (Net working capital/acid test ratio)

Interpretation of ratios

- Previous year 10
 - Current ratio = 2 → Industry average 5
 - Competitor 8
 - (NB: the performance is poor. How will you improve it?)
-
- A diagram illustrating the interpretation of a current ratio of 2. The number '2' is the central focus. Three arrows point from it to other values: an upward arrow to 'Previous year 10', a rightward arrow to 'Industry average 5', and a downward arrow to 'Competitor 8'. Each of these four items is preceded by a green circle bullet point.

Interpretation of ratios

Ratio	2010	2009	Industry average	Competitors
Current ratios	2,2	3,1	3,2	3,1
Acid test ratio	1,4	1,6	1,8	1,5
Debt ratio	37%	38%	39%	39%
Gearing ratio	1,7	1,8	1,9	1,8
Gross profit margin	50%	60%	64%	61%
Net profit margin	7,57%	7,8	7,9%	7,8
ROC	19,1%	20%	21%	20%
Return of shareholders interest	25,2%	26%	27%	27%
ROE	26,1%	27%	28%	27%

Improving the ratio (performance)

- Profitability ratio
- *For example it can be improved by:*
 - increasing prices
 - increasing production
 - reducing cost

Scope of the finance section

- ◎ Basic concepts, fundamental principles
- ◎ Investment decision-making
- ◎ Financing decision-making

Investment



Financing



Assets

- Land & buildings
- Plant & equipment
- Vehicles

Current assts

- Cash
- Debtors
- Inventory

Long-term funds

- Shareholders interest
- Ordinary share capital
- Preference shares
- Long-term debt

Current liabilities

- Trade creditors
- Bank overdraft
- Arrear expenses

Investment management (13.8)

- ◉ Management of current assets
 - > Cash management
 - > Debtor management
 - > Inventory management

Investment in current asset

- ◎ OVER-INVESTMENT
- ◎ -cost/risk

- ◎ UNDER-INVESTMENT
- ◎ -cost/risk

(page 98 study guide)

Cash management

- ◉ Motives for holding cash
- ◉ Cash cycle
- ◉ Cash Budget

Motives for holding cash

- ① Transaction motive
- ② Precautionary motive
- ③ Speculative motive

Cash Cycle



Components of a cash budget

Cash receipts

Cash payments

Net cash

Cash budget (cash receipts)

Details	March	April	May	June
Total Sales	100	200	300	400
Cash sales(10%)	10	20	30	40
Collection (90%)		90	180	270
Total cash		110	210	310

ABC Ltd's sale for March 2012 is R100 and increases by R100 every month. 10% of sales is cash and 90% is collected the following month. Compile a cash receipt section of the cash budget for the month of April, May and June,

Cash budget (cash payments)

Details	March	April	May	June
Total Purchases	50	100	200	300
Cash Payments(10 %)	5	10	20	30
Payments(90 %)		45	90	180
Total cash Payments		55	110	210

Cash budget

Details	March	April	May	June
Total cash receipts		110	210	310
Total cash Payments		<u>55</u>	<u>110</u>	<u>210</u>
Net cash		55	100	100
Opening cash		<u>0</u>	<u>55</u>	<u>155</u>
Cash for the year		55	155	255

ABC Ltd's purchases for April, May, and June are R55, 100, and R100 respectively. Calculate the cash budget for the month of April, May and June

Management of Debtors (A/R)

- ◉ Type of credit
- ◉ Credit policy
- ◉ Credit terms
- ◉ Collection policy

Type of credit

- ◉ Consumer credit
- ◉ Trade credit

Credit policy

- ◉ Character
- ◉ Capacity
- ◉ Capital
- ◉ Condition

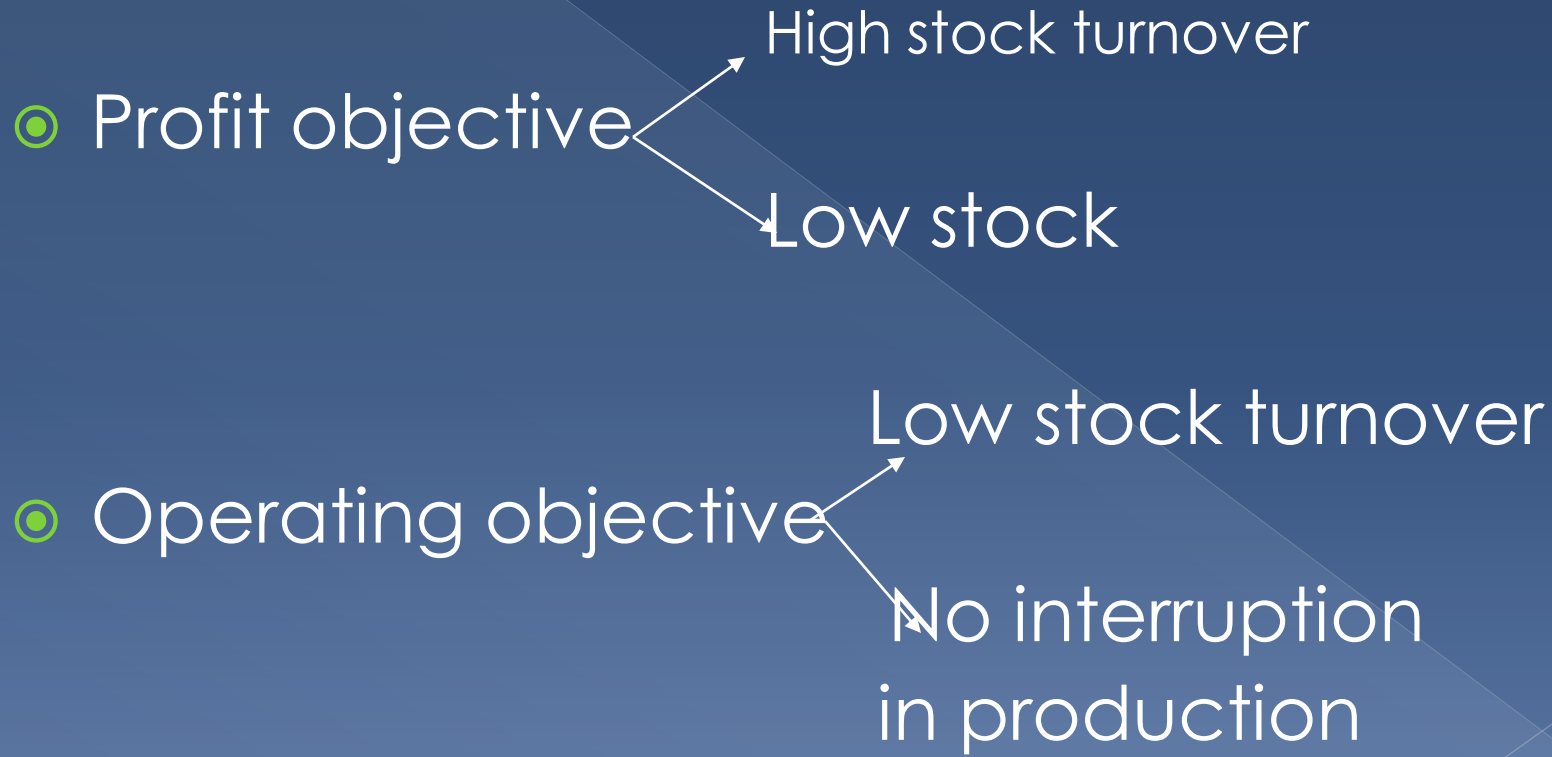
Credit terms

- ◉ Discount (3)
- ◉ Discount period (10)
- ◉ Settlement period (30)
- ◉ 3/10 net 30

Collection policy

- ◉ Rigorously
- ◉ Less rigorously

Management of inventory



The cost of holding inventory

- ◉ Lost of interest
- ◉ Storage cost
- ◉ Insurance cost
- ◉ Obsolescence

Cost of holding little inventory

- ◉ Lost of customer goodwill
- ◉ Production interruption dislocation
- ◉ Loss of flexibility
- ◉ Re-order costs

Management of fixed assets (capital investment) (capital budgeting)

- ⦿ Importance of capital investment
- ⦿ -the amount involved
- ⦿ -strategic nature
- ⦿ -long-term nature

Capital budgeting

- ◎ Calculating NPV
- ◎ Requires us to estimate cash flows
 - ◎ -initial investment
 - ◎ -operating cash flow
 - ◎ -terminal cash flow
- ◎ **How do we use the cash flows?**
 - ◎ -use capital budgeting technique (NPV)

Capital budgeting :New bakery

- New oven R2000
- Cost of capital is 15%

● <u>Year</u>	<u>operating cash inflows</u>
● 1	R400
● 2	R400
● 3	R600
● 4	R700
● 5	R800

Interest tables

	Future value factors		
Period			
	5%	10%	15%
1	1.0500	1.100	1.1500
2	1.1025	1.210	1.3225
3	1.1576	1.3310	1.5209
4	1.215	1.4641	1.7490

Period	Discounting factors/Present value factors		
	5%	10%	15%
1	0.9524	0.9091	0.8696
2	0.9070	0.8264	0.7561
3	0.8638	0.7513	0.6575
4	0.8227	0.6830	0.5718

NPV TECHNIQUE

Year	Net flows		PVIF15%	=	PV
1	R400	X	0,8696	=	R348
2	R800	X	0,7561	=	R302
3	R600	X	0,6575	=	R395
4	R700	X	0,5718	=	R400
5	<u>R800</u>	X	0,4972	=	<u>R398</u>
	R2 900				R1 843
NPV = PV cash flow - initial investment					
NPV = R1 843 - R2 000 = -R153					

Calculation of cash flows (pages 467, 13,19)

◉ Sales	R1000
◉ Less: operating expenses	R300
◉ : depreciation	<u>R200</u>
◉ Taxable income	R500
◉ Less: tax	<u>R200</u>
◉ Profit	R300
◉ Add : dep back	<u>R200</u>
◉ Cash flow	R500

Investment



Financing



Assets

- Land & buildings
- Plant & equipment
- Vehicles

Current assts

- Cash
- Debtors
- Inventory

Long-term funds

- Owner's equity
- Preference shares
- Shareholders interest
- Long-term debt

Current liabilities

- Trade creditors
- Bank overdraft
- Arrear expenses

Financing decision (13.10)

- ① FINANCIAL MARKETS
- ① FINANCIAL INSTITUTIONS
- ① FINANCIAL ASSETS

Short-financing decision-making

- Trade credit
- Accruals
- Bank overdraft
- Factoring

Capital structure

Ordinary shareholders (Owners` equity) (50%)

Preference shareholders (30%)

Debt (20%)

Short-financing decision-making

- Risk/cost

Balance sheet/finance/investment decision making

<u>LONG-TERM INVESTMENT</u>		<u>LONG-TERM FINANCING</u>	
-Land and buildings	R1 00	- Ordinary shares	R1 10
-Plant and equipments	R 90	- Preference shares	R 90
-Vehicles	<u>R 80</u>	- Long-term debt	<u>R 70</u>
	R 270		R270
<u>SHORT-TERM INVESTMENT</u>		<u>SHORT-TERM FINANCING</u>	
-Cash	R 50	-Trade creditors	R 30
-Marketable securities	R 40	-Bank overdraft	R 60
-Debtors	R 30	-Arrear expenses	<u>R 50</u>
-Inventory	<u>R 20</u>		<u>R140</u>
	R140		
Total	<u>R 410</u>	Total	<u>R410</u>

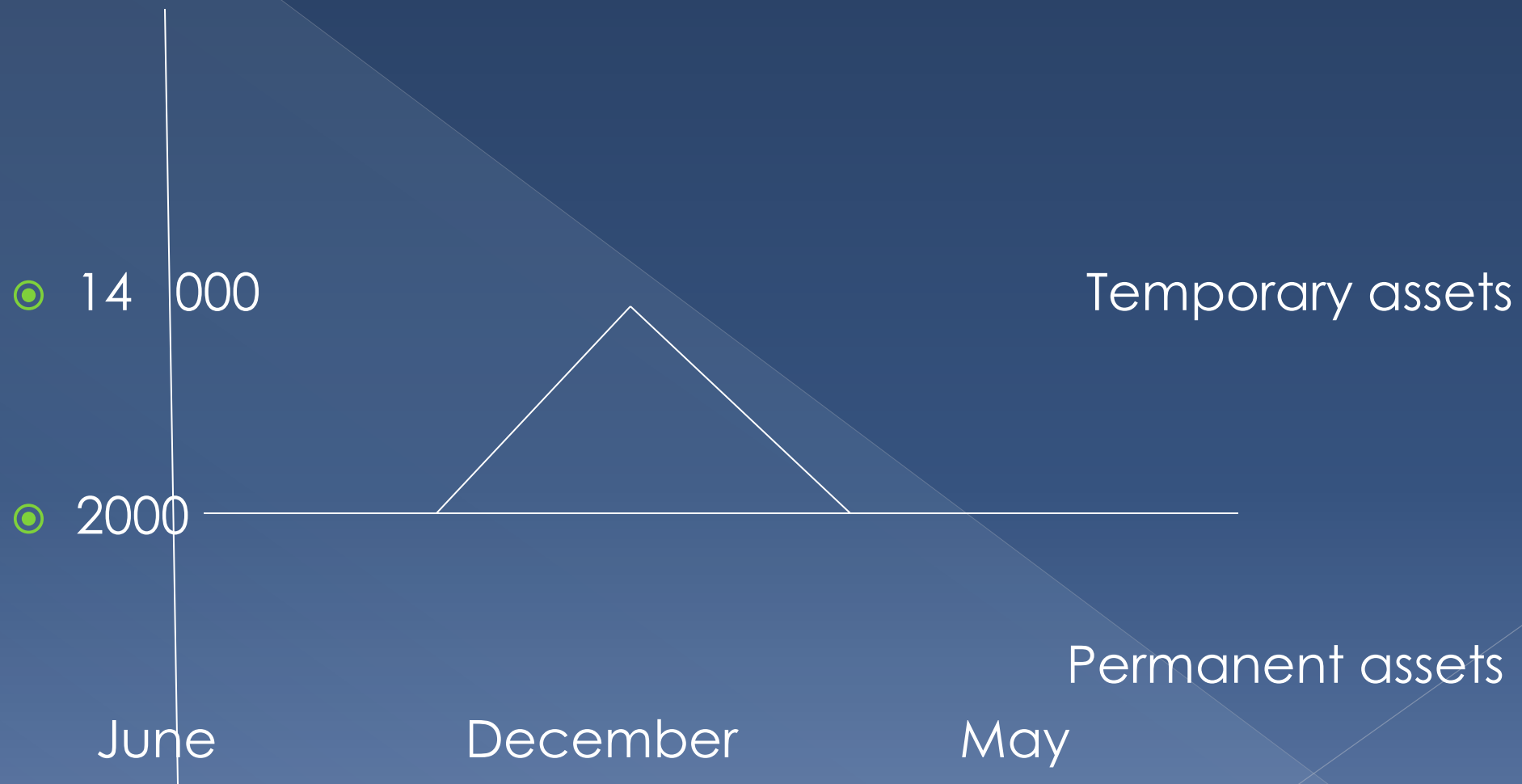
Financing strategies

- ◉ Matching approach
- ◉ Conservative approach
- ◉ Aggressive Approach

Financing strategies

- ◉ Seasonal/temporary current assets
- ◉ Permanent current assets
- ◉ Fixed assets

Funding CCC



Matching approach

- Fixed assets → Long-term funds
- Permanent current assets → Long-term funds
- Temporary current assets → Short-term funds

Aggressive approach

- Fixed assets → Long-term funds
- Permanent current assets → Long-term funds
→ Short-term funds
- Temporary current assets → Short-term funds

Conservative approach

- Fixed assets → Long-term funds
- Permanent current assets → Long-term funds
- Temporary current assets → Long-term funds

Balance sheet/finance/investment decision making

<u>LONG-TERM INVESTMENT</u>		<u>LONG-TERM FINANCING</u>	
-Land and buildings	R1 00	- Ordinary shares	R1 10
-Plant and equipments	R 90	- Preference shares	R 90
-Vehicles	<u>R 80</u>	- Long-term debt	<u>R 70</u>
	R 270		R270
<u>SHORT-TERM INVESTMENT</u>		<u>SHORT-TERM FINANCING</u>	
-Cash	R 50	-Trade creditors	R 30
-Marketable securities	R 40	-Bank overdraft	R 60
-Debtors	R 30	-Arrear expenses	<u>R 50</u>
-Inventory	<u>R 20</u>		<u>R140</u>
	R140		
Total	<u>R 410</u>	Total	<u>R410</u>

SOURCE OF LONG TERM FUNDS

- ◉ Ordinary shares
- ◉ Preference share
- ◉ Debt

Capital structure

Ordinary shareholders (Owners` equity) (50%)

Preference shareholders (30%)

Debt (20%)

Cost of long term funds

- Weighted average cost of capital (WACC)

<u>Form</u>	<u>Amount</u>	<u>Weight</u>	<u>Cost</u>
Ordinary	R1 400m		20%
Preference	R3 00 000		10%
Long-term debt	R 500 000		10%

- NB: 10% before tax

Assignment question 12

- Madiba Ltd borrowed R20 000 at an interest rate of 10% from Absa bank. Assuming a tax rate of 30%.
- What will be Madiba Ltd's after tax cost of capital?

● Answer

$$10 (1 - 0,30) = 7\%$$

Answer

<u>Component</u>	<u>Amount</u>	<u>Cost</u>	<u>Weight</u>	<u>Weighted cost</u>
Owners` equity	1 400	20%	X 63,6	= 12,72%
Preference Shares	300	10%	X 13,6	= 1,36%
Debt	<u>500</u> 2 200	7%	<u>X 22,8</u>	= 1,60%
			WACC	15,68

◉ QUESTIONS 17 & 18

MNB1601

LECTURER : Mr ABRAM PHENYA

Email: Phenyam@unisa.ac.za
Tel(012) 429 -4493