### Course Outline

I. Financial Accounting

II. Tax Basics

### **III.** Management Accounting

- 1. Basic concepts
- 2. Product costing
- 3. Budgeting

# 1. Basic Concepts Managerial versus financial accounting

	Financial accounting	Managerial accounting
Users	Outside parties (investors, banks, suppliers, government agencies)	Inside parties (managers)
Reports	Summarized (entity as a whole)	Detailed (parts of the entity, products, departments, territories, etc.)
Constraints	Generally Accepted Accounting Principles (GAAP)	None, although cost/benefit
Time focus / span	- Past (actual 20X0 – actual 20X1) - 1 year (sometimes ½, ¼)	- Future (budget 20X2 – actual 20X1) - Varying, from hourly to 10 year

## 1. Basic Concepts

### Budget & Performance Report

Budgeted Actual Variance Amount Amount Amount 6,000 U 19,000 25,000 Revenues 20,000 15,000 5,000 F Expenses Net Income 5,000 1,000 U 4,000 F = FavorableU = Unfavorable

Planning & Control

In order to take **decisions** and realising a **management goal** = **management proces** 

### 1. Basic Concepts

Advantages of Budgets

□ Planning

Budgeting forces managers to think ahead (past + new)

□ Judging performance

Budgeting provides an opportunity to reevaluate existing activities and evaluate possible new activities

Budgeting provides benchmarks to evaluate subsequent performance

□ Communication and coordination



# 1. Basic Concepts Cost Driver

### What is a **cost driver**?

Any (output) measure that causes costs (causes the use of costly resources

- -Volume-related
- -Non-volume related



# 1. Basic Concepts Cost Driver

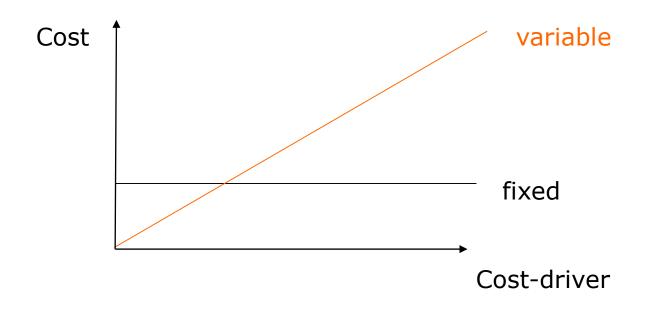
Examples		
<u>Cost:</u> Rent	Cost driver: Surface (#m2) - Location	
Wages	# hours - # employees - Experience - Education	
Transport	Distance (# km) - Weight (#kg) – Fragility item	

In manufacturing companies the volume output (# items produced) is a common cost driver

# 1. Basic Concepts Fixed vs. variable costs

A *variable cost* changes in direct proportion to changes in the cost-driver level.

A *fixed cost* is not immediately affected by changes in the cost-driver.



## 1. Basic Concepts Fixed vs. variable costs



WATCH OUT!

Example: Rent?

Fixed or variable cost?

Depends upon the type of cost-driver!

Variable: if cost-driver = surface (# m2)

Fixed: if cost-driver = volume output (# items produced)

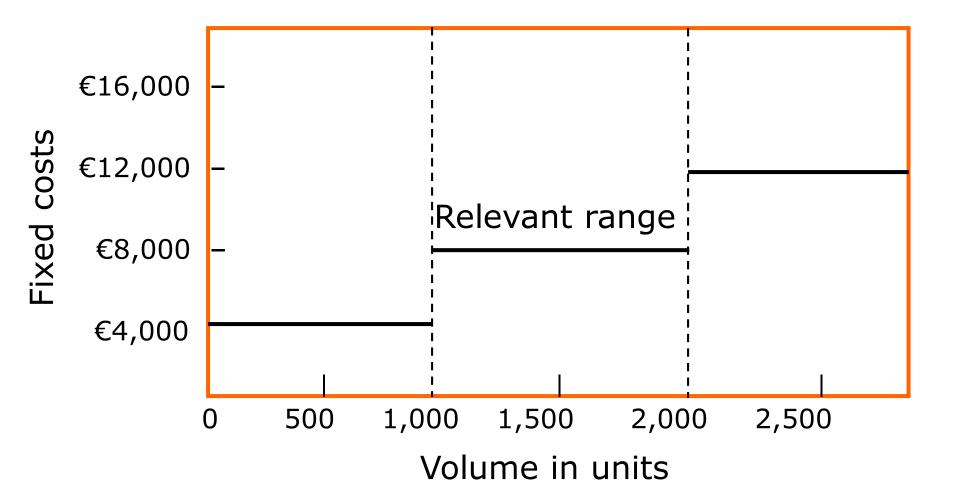
# 1. Basic Concepts Fixed vs. variable costs

If amount of goods sold increases	Total	Per unit
Fixed costs	Fixed	
Variable costs		Fixed

# 1. Basic Concepts Step costs

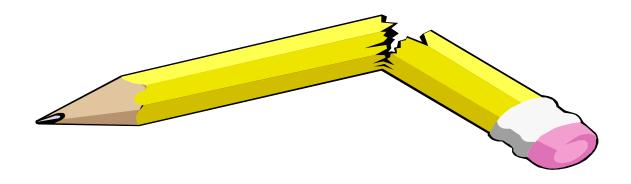
Fixed costs are only fixed within reasonable limits of activity levels (*relevant range* = is the limit of cost-driver activity within which a specific relationship between costs and the cost driver is valid). Even within the relevant range, a fixed cost remains fixed only over a given period of time.

# 1. Basic Concepts Step costs

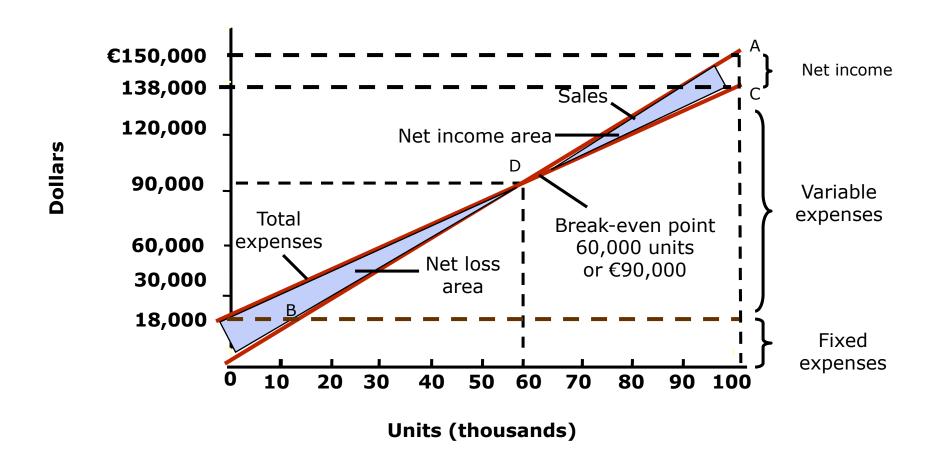


### 1. Basic Concepts Break-Even

The break-even point is the level of sales at which revenue equals expenses and net income is zero.



# 1. Basic Concepts Cost-Volume-Profit graph



# 1. Basic Concepts Break-Even Point: Equation Technique

Net income = 0

Total revenue = Total Cost TRev = VarC + FixedC pxq = (VarC/q) x q + FixedC q = FixedC / (p - VarC/q)



Contribution margin

# 1. Basic Concepts *Break-Even Point: Equation Technique*

		Eta .	
	<u>Per Unit</u>	Percentage '9/7	
Sales price	€5	100%	0
Variable costs	<u>4</u>	<u>80%</u>	C.
Contribution margin	€1	20%	

Total Fixed Cost =	€ 8,000
Rent	€ 2,000
Wages	€ 5,500
Other	€ 500

$$S - 0.80S - €8,000$$
  
= 0  
.20S =  $€8,000$   
 $S = €8,000 \div .20$   
**Sales** =  $€40,000$ 

## 1. Basic Concepts Absorption versus Contribution

### **ABSORPTION**

Sales

Cost of Goods Sold

(Manufacturing expense)

Equals **Gross Margin** 

Direct/indirect

Variable/Fixed

Manufactucturing/

Direct/indirect

sellina

**CONTRIBUTION** 

Sales

Variable Expenses

Equals Contribution Margin

Fixed Expenses

Equals Operating Income

Selling and Administrative Expenses

**Equals Operating Income** 

# 2. Product Costing Direct versus Indirect

*Direct costs* can be identified <u>specifically and exclusively</u> with a given cost object.

*Indirect costs or overhead* cannot be identified <u>specifically and exclusively</u> with a given cost object (need of an allocation base).

### Example: cost object = product = desk

Material (wood) = direct Salary worker = direct

Salary supervisor = indirect Electricity and heating of assembly room = indirect



# 2. Product Costing Direct versus Indirect

#### **WATCH OUT!**

Example: Salary of the supervisor of all housekeeping girls (hotel) Is this a direct or an indirect cost?

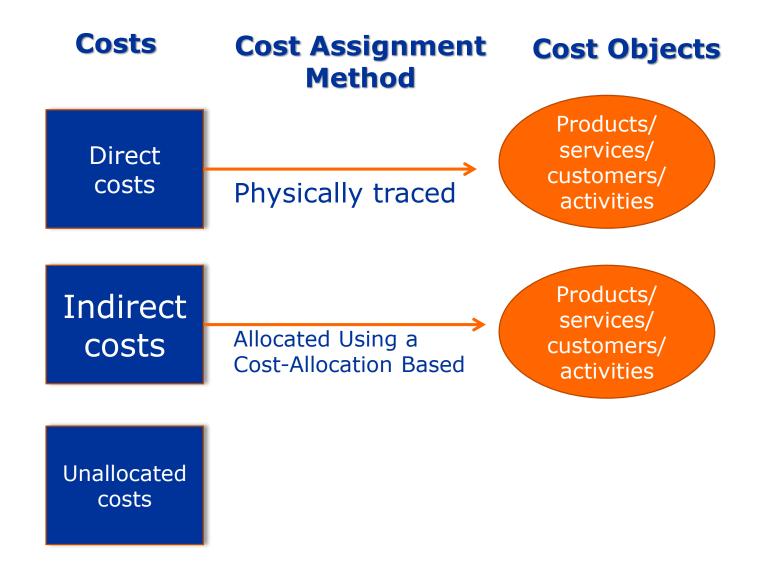
**DEPENDS UPON COST OBJECT!** 

Direct: if cost object = department 'housekeeping'

Indirect: if cost object = room



# 2. Product Costing Methods of Cost Allocation



## 3. Budgeting Financial Plan



A **financial plan**, in which the adequacy of the financial means (in equity and in debt) must be established by the founders, **is mandatory** in order to establish a company with limited liability (BV, NV and CV). The plan provides a **detailed overview of financial resources and requirements** covering the <u>first two years of activity</u> of the company.

- → The budget should demonstrate a balanced relationship between funding and intended activities
- → If the company is declared bankrupt within the first 3 years of its creation, the founders may incur personal liability if the funding was manifestly insufficient
- → Financial plan is kept by the notary
- → External specialist is not required but recommended

The new Code lists the **minimum information** the plan must contain. Therefore, the plan is more extensive than imposed by the former Belgian Companies Code

## 3. Budgeting

#### Content of the Financial Plan



## The detailed financial plan should incorporate at least the following components:

- 1. Accurate description of the envisioned activities of the company
- 2. Overview of all financing sources at incorporation and, where applicable, guarantees provided in this respect
- 3. Opening and forecast balance sheets after 12 and 24 months
- 4. Forecast of the profit and loss accounts after 12 and 24 months
- 5. Forecast of the cash flow (income and expenses) for a period of at least 2 years after incorporation
- 6. Description of the assumptions used in the financial plan
- 7. Where applicable, the name of the external advisor who assisted with drafting the financial plan

### 3. Budgeting

### Example of a Financial Plan

#### 1° een nauwkeurige beschrijving van de voorgenomen bedrijvigheid

Het betreft een vennootschap waarvan de activiteit bestaat uit de handel in kantoormeubelen, d.w.z. aanen verkoop.

### $2^{\circ}$ een overzicht van alle financieringsbronnen bij oprichting, in voorkomend geval, met opgave van de in dat verband verstrekte zekerheden

Inbreng in speciën:	100.000 EUR
Inbreng van natura:	o eur
Vergoeding in R/C:	o EUR
Inbreng éénmanszaak:	o EUR
:	o EUR



## 3. Budgeting Example of a Financial Plan

6° een beschrijving van de gehanteerde hypotheses bij de schatting van de verwachte omzet en de verwachte rentabiliteit

#### 1. INVESTERINGSBUDGET

	<u>jaar 1</u>	jaar 2	jaar 3	Totaal
Aankoop lichte vrachtwagen	40.000			40.000
Afschrijving lineair. jaren:	5			
Jaarlijkse afschrijving:	8.000			
Aankoop hard- en software	10.000	5.000		15.000
Afschrijving lineair. Jaren:	5	3		
Jaarlijkse afschrijving:	2.000	1.667		
Totaal investering	50.000	5.000		55.000
Totaal afschrijving	10.000	1.667		11.667

#### 2. FINANCIERINGSBUDGET

jaar 1	jaar 2	jaar 3
40.000		

Terugbetaling lineair op 5 jaar. 3% intrest per jaar.

#### 3. EXPLOITATIEBUDGET

Omzet:

	<u>jaar 1</u>	jaar z	jaar 3
stuks per	20	22	24
maand:			
verkoopprijs:	2.600	2.600	2.650

Geen omzet in juli wegens vakantie

In jaar 3 wordt het gamma uitgebreid en wordt verwacht dat de voorraad zal verdubbelen.

stuks in voorraad: 20 22 48 aankoopprijs per stuk: 2.000 2.000 2.010 voorraad: 40.000 44.000 96.480



### 3. Budgeting Financial Plan – Sales Forecast

- A sales forecast is a prediction of sales under a given set of conditions.
- Factors to Consider When Forecasting Sales:
  - Past patterns of sales
  - Estimates made by the sales force
  - General economic conditions
  - Competitors' actions
  - Changes in the firm's prices
  - Changes in product mix
  - Market research studies
  - Advertising and sales promotion plans



## 3. Budgeting

### Example of a Financial Plan

#### Kosten

	<u>jaar 1</u>	<u>jaar 2</u>	jaar 3	
Aankoopprijs:	2.000	2.000	2.010	EUR per stuk
Huur winkel	2.500	2.550	2.600	EUR per maand
Huur woning	100	100	100	EUR per maand
Gas, water en elektriciteit	100	102	104	EUR per maand
Internet en telefoon	150	153	156	EUR per maand
Erelonen notaris oprichting	1.500	0	þ	EUR éénmalig
Inschrijving ondernemingsloket e.d.	200	0	0	EUR éénmalig
Erelonen boekhouding	200	250	300	EUR per maand
Neerlegging jaarrekening	0	100	100	EUR per jaar
Seminaries en opleidingen	50	51	52	EUR per maand
Onderhoud/verbruik personenwagen	200	204	208	EUR per maand
Verzekering personenwagen	2.400	2.448	2.497	EUR per jaar
Verkeersbelasting personenwagen	600	612	624	EUR per jaar
Bezoldiging Zaakvoerder	4.000	4.000	4.000	EUR per maand
Restaurantkosten en relatiegeschenken	100	102	104	EUR per maand

#### 4. BETALINGSTERMIJNEN

De klant betaalt de factuur na: 60 dagen 2,0 maand Leveranciers worden betaald na: 30 dagen 1,0 maand

Belastingen worden geacht betaald te worden in juni van het volgende boekjaar.



## 3. Budgeting Financial Plan – Operating Expense Budget

- The budgeting of operating expenses depends on several factors.
- Month-to-month changes in sales volume and other cost-driver activities directly influence many operating expenses.
- Expenses driven by sales volume include sales commissions and many delivery expenses.
- Other expenses are not influenced by sales or other cost-driver activity and are regarded as fixed, within appropriate relevant ranges (rent, wages, insurance).

## 3. Budgeting

### Example of the Financial Plan

$4^\circ$ een geprojecteerde resultatenrekening na 12 en 24 maanden, opgesteld volgens het schema bedoeld in artikel $3:3$			ikel 3:3		
			Boekjaar 1	Boekjaar 2	Boekjaar 3
		Start:	1/01/2019	1/01/2020	1/01/2021
		Einde:	31/12/2019	31/12/2020	31/12/2021
			2019	2020	2021
		Aantal stuks:	220	242	264
		Verkoopprijs:	2.600	2.600	2.650
70 Omzet per maand	:	Totaal:			
70 Omzet cumulatief	:		572.000	629.200	699.600
			0	0	0
74 Andere bedrijfsopbrengsten	:		0	0	0
			572.000	629.200	699.600
		Aantal stuks:	240	244	290
		Aankoopprijs:	2.000	2.000	2.010

60 Aankopen goederen :	Totaal:	480.000	488.000	582.900
60 Voorraadwijziging :		-40.000	-4.000	-52.480
61 Diensten en diverse goederen :		0	0	0
Huur winkel :		30.000	30.600	31.200
Huur woning :		1.200	1.200	1.200
Gas, water en elektriciteit :		1.200	1.224	1.248
Internet en telefoon :		1.800	1.836	1.873
Erelonen notaris oprichting :		1.500	0	0
Inschrijving ondernemingsloket e.d. :		200	0	0
Erelonen boekhouding :		2.400	3.000	3.600
Neerlegging jaarrekening :		0	100	100
Seminaries en opleidingen :		600	612	624
Onderhoud/verbruik personenwagen :		2.400	2.448	2.497
Verzekering personenwagen :		2.400	2.448	2.497
Verkeersbelasting personenwagen :		600	612	624
Bezoldiging Zaakvoerder :		48.000	48.000	48.000
Restaurantkosten en relatiegeschenken :		1.200	1.224	1.248
82 Bezoldigingen :		0	0	0
63 Afschrijvingen :		10.000	11.667	11.667
64 Andere bedrijfskosten :		0	0	0
Vennootschapsbijdrage		0	0	0
Provincie- en gemeentebelasting		0	0	0
		543.500	588.971	636.799
Bedrijfsresultaat:		28.500	40.229	62.801
75 Financiële opbrengsten :				
Interesten bankrekening		0	0	0
85 Financiële kosten :		0	0	0
Bankkosten		0	0	0
Interesten lening		1.200	1.200	1.200
		-1.200	-1.200	-1.200
Resultaat voor belastingen:		27.300	39.029	61.601
Belastingen:	20%	-5.460	-7.806	-12.320
Netto-resultaat:		21.840	31.223	49.281

# 3. Budgeting Example of the Financial Plan

3° een openingsbalans en evenals geprojecteerde balansen na 12 en 24 maanden						
		Start: Einde:	Opening	Boekjaar 1 - 1/01/2019 31/12/2019 2019	Boekjaar 2 - 1/01/2020 31/12/2020 2020	Boekjaar 3 - 1/01/2021 31/12/2021 2021
ACTIVA						
20 Oprichtingskosten 21 Immateriële vaste activa 22 Materiële vaste activa	:			0	0	0
Investeringen Afschrijvingen 28 Financiële vaste activa	:			50.000 -10.000	55.000 -21.667	55.000 -33.333
	Vaste activa:		0	40.000	33.333	21.667
29 Vorderingen > 1 jaar	:			0	О	0
30 Voorraden		Stuks: Kostprijs:	0	20 2.000 40.000	22 2.000 44.000	48 2.010 96.480
40 Vorderingen < 1 jaar Klanten	:			0 115.353	0 126.889	0 141.086 0
53 Geldbeleggingen 55 Liquide middelen 49 Overlopende rekeningen	:		100.000	0 19.535 0	0 45.429 0	0 58.265 0
	Vlottende activa:		100.000	174.888	216.318	295.831
	Totale activa:		100.000	214.888	249.651	317.498

## 3. Budgeting

### Example of the Financial Plan

PASSIVA			<u>Opening</u>	Boekjaar 1	Boekjaar 2	Boekjaar 3
10 Aanvangsvermogen	:		100.000	100.000	100.000	100.000
11 Uitgiftepremies	:			0	0	0
12 Herwaarderingsmeerwaarden	:			0	0	0
13 Reserves	:			0	0	0
14 Overgedragen resultaat	:			21.840	53.063	102.344
15 Kapitaalsubsidies				0	0	0
		_				
	Eigen vermogen:		100.000	121.840	153.063	202.344
16 Voorzieningen en UB	:			0	0	0
17 Schulden > 1 jaar	:			0	0	0
Financiële schulden:		40.000		24.000	16.000	8.000
42 Schulden < 1 jaar						
Financiële schulden:	:			8.000	8.000	8.000
Leveranciers:	:			58.003	58.749	67.612
Te betalen btw	:			-2.415	6.033	19.221
Te betalen belastingen:	:			5.460	7.806	12.320
49 Overlopende rekeningen	:			0	0	0
	Vreemd vermogen:	_	0	93.048	96.588	115.153
	Totale passiva:		100.000	214.888	249.651	317.498



# 3. Budgeting Example of the Financial Plan

Berekening van de behoefte aan werkkapitaal			
+ Voorraden	40.000	44.000	96.480
+ Klanten	115.353	126.889	141.086
- Leveranciers en niet-rentedragende schulden	-61.048	-72.588	-99.153
Totaal:	94.305	98.301	138.413
Mutatie:	-94.305	-3.995	-40.112
	0	0	0

Gecomprimeerde balans (managerial balance sheet)			
Vaste activa	40.000	33.333	21.667
Behoefte aan werkkapitaal	94.305	98.301	138.413
Liquide middelen	19.535	45.429	58.265
	153.840	177.063	218.344
Eigen vermogen	121.840	153.063	202.344
Rentedragende schulden op lange termijn	24.000	16.000	8.000
Rentedragende schulden op korte termijn	8.000	8.000	8.000
	153.840	177.063	218.344



### $5^{\circ}$ een begroting van de verwachte inkomsten en uitgaven voor een periode van minstens 2 jaar na de oprichting (geprojecteerde vermogensstroomtabel)

	Start: Einde:	Boekjaar 1 1/01/2019 31/12/2019 2019	Boekjaar 2 1/01/2020 31/12/2020 2020	Boekjaar 3 1/01/2021 31/12/2021 2021
Omzet		572.000	629.200	699.600
- Kostprijs verkochte goederen		-440.000	-484.000	-530.420
- Algemene kosten en bezoldigingen		-93.500	-93.304	-94.712
- Overige kosten en belastingen		-5.460	-7.806	-12.320
- wijziging in werkkapitaal		-94.305	-3.995	-40.112
A. NET OPERATING CASHFLOW		-61.265	40.095	22.036
Openingsbalans vaste activa		0	40.000	33.333
Eindbalans vaste activa		-40.000	-33.333	-21.667
- Afschrijvingen		-10.000	-11.667	-11.667
+/- correcties voor herwaarderingen				
B. NET CASHFLOW FROM INVESTING ACTIVITIES		-50.000	-5.000	0
Toename in lange-termijn leningen		40.000	0	0
+ toename leningen		0	0	0
- terugbetaling leningen		-8.000	-8.000	-8.000
- intrestbetalingen		-1.200	-1.200	-1.200
C. NET CASHFLOW FROM FINANCING ACTIVITIES		30.800	-9.200	-9.200
Beginsaldo eigen vermogen		-100.000	-121.840	-153.063
- resultaat boekjaar		-21.840	-31.223	-49.281
+ eindsaldo eigen vermogen		121.840	153.063	202.344
D. CASHFLOW FROM EQUITY		0	0	0
TOTAL NET CASHFLOW (A+B+C+D) Per	Cumul:	-80.465	25.895	12.836
Controle:				
Liquide middelen begin		100.000	19.535	45.429
Liquide middelen einde		19.535	45.429	58.265
		-80.465	25.895	12.836

