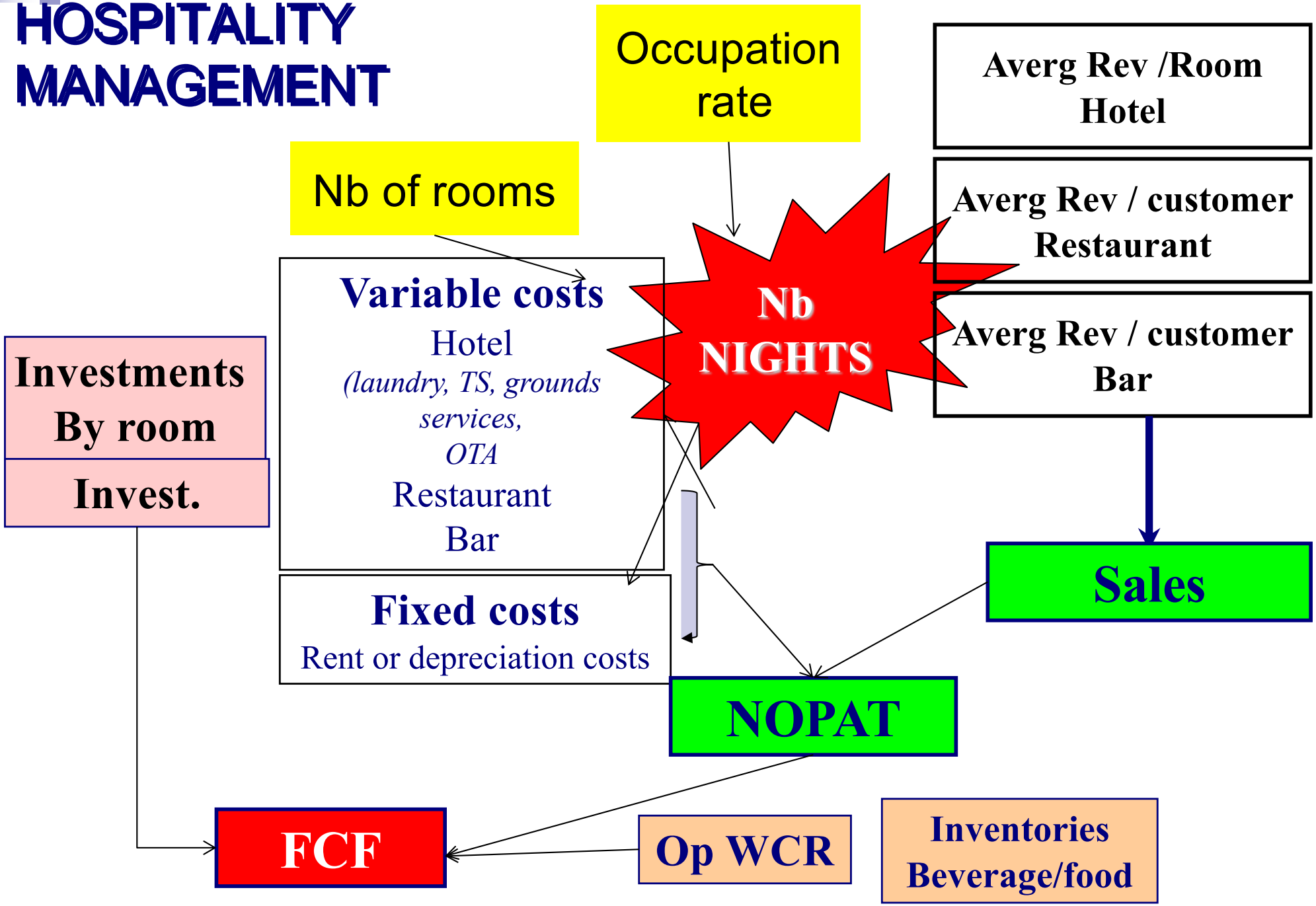
Cash flows forecasting

- Lecture 4 : Cash flows forecasting
  - *First step to assess the return on investment made by a firm*

Cash flows forecasting

- **Forecasting Future Cash flows**
  - 2 steps to prepare forecasts
    - Understand **business model** and identify the most important **drivers** to build forecasts
    - Built tables :
      - 1/ Income statement
      - 2/ Cash flow statement
    - Track a minimum set of indicators
      - Growth trend
      - Normativ Margins *(Ebit/sales margin)*
      - Normativ WCR *(DIO, DSO, DPO)*
      - Financial structure *(combination of financial resources)*
      - Returns (ROCE)

HOSPITALITY MANAGEMENT



Cash flows forecasting

- **Forecasting Future Cash flows**
  - **Income statement (simplified)**
    - Determine revenues : volumes (nb of units) x unit prices (inflated)
    - Split fixed and variables costs (inflated)
      - Fixed costs remain rather stable over 2 up to 3 years
      - Variable costs increase with the volumes (nb of units x unit cost)
    - Compute depreciation cost
      - *Reminder : Depreciation is the way to state the loss in value of non current TANGIBLE assets (some intangible too).*
      - Determine future investments (nature, amount, useful life)
      - Calculation of depreciation cost may be as follows

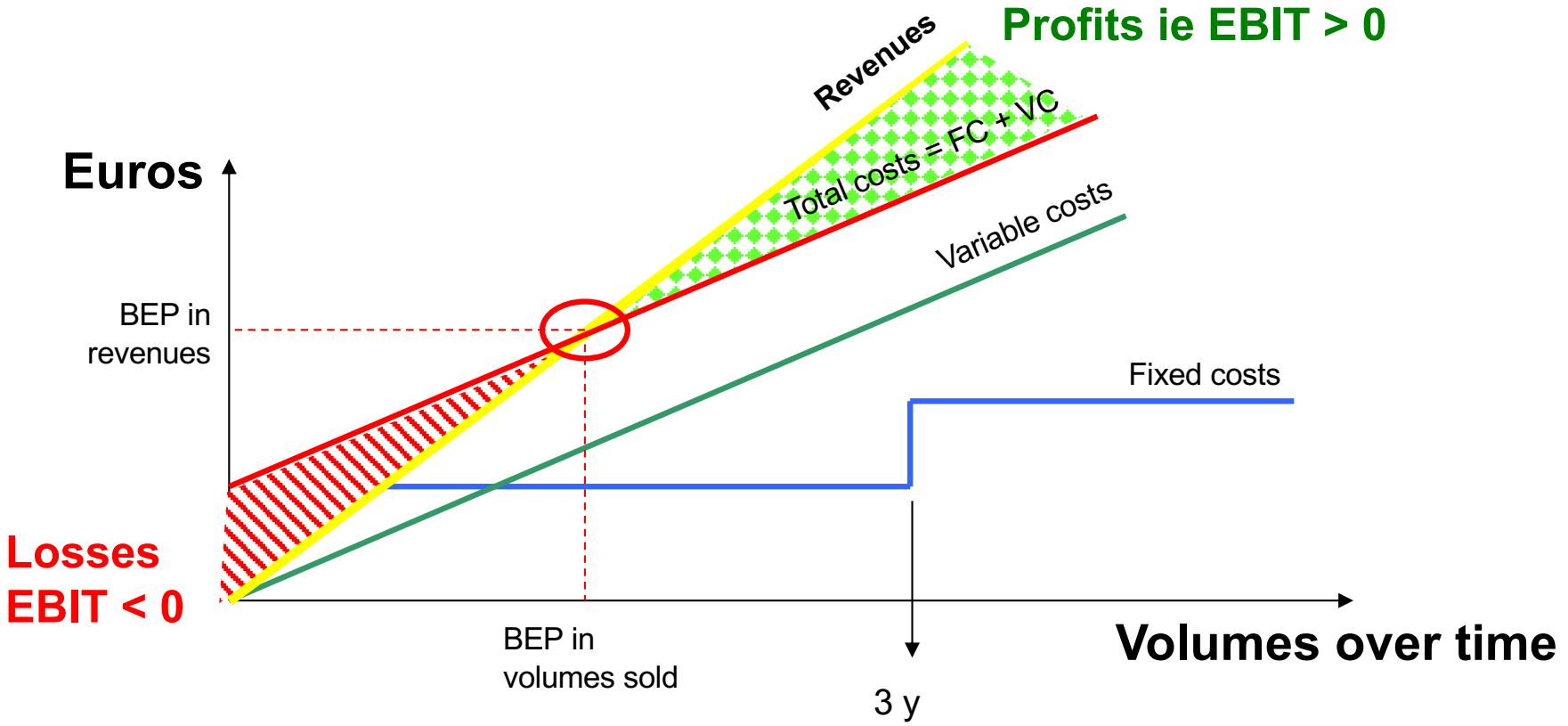
        Acquisition price of the asset : 100 th $

        Useful life of the asset : 5 years

        Annual depreciation cost : 100 th$/5 = 20 th $
    - **Estimate EBIT and NOPAT = EBIT x (1-Tax)**

THE INVESTMENT POLICY

- **Different king of costs : Fixed and variable**
  - **Cost structure & BreakEven Point**



Cash flows forecasting

- **Forecasting Future Cash flows**
  - **Income statement (simplified)**

	Sales
-	Variable costs
-	Fixed costs
=	**EBITDA**
-	Depreciation on non current assets
=	**EBIT**
-	Income tax (on EBIT)
=	**Net operating profit after tax**

Cash flows forecasting

- **Forecasting Future Cash flows**
  - **Income statement (simplified)**

Forecast	Computation
Sales	Selling price x Volumes inflated
Variable costs	Purchase price x Volumes inflated
Fixed costs	Inflation
Depreciation costs	Amount of investment/nb of years (straight line method)
Corporate tax	Tax rate x EBIT
Unlevered net income	EBIT after tax or NOPAT

Cash flows forecasting

- **Forecasting Future Cash flows**
  - **Cash flow statement**
    - Cash flow (cash generated by the operations)
    - Define the terms of payment and the determinants of the WCR (normativ DIO – look at the past or the industry stats, DSO, DPO)
    - **Estimate FREE CASH FLOW**

Cash flows forecasting

- **Cash flow statement**
- In conceptual terms the **strength of the free cash flow within a company is a better indicator of the health of that company** than the value of its balance sheet or its reported income statement.

- **What is generating cash in a company ?**
  - Profitability
  - WCR (optimisation)
  - Disposal of assets
  - Equity
  - Debt

Internal re/sources

External re/sources

Review of financial statements

Cash flow statement

Where the cash is from ?
Where the cash goes to ?

	CASH FLOW *(cash from earnings)*
-	**Change in WCR**
=	**Cash flow from operations (1)**
-	Capital expenditures *(buying non current assets)*
+	Disposal *(sale)* of non current assets
=	**Cash flow from investments (2)**
∑	**Free cash flow (1+2)**
-	Dividends paid
+	Capital raising, issuance of stocks
-	Loan repayment (instalment : P+I)
+	New bank loan or Bonds issues
=	**Cash flow from financings (3)**
∑	**Change in cash over the period (1+2+3)**
+	**Opening Cash balance**
=	**Closing Cash Balance**

from P&L

from B/S

Cash generated by the company from its operating & investing activities

Financing policy of the company

Review of financial statements

Cash flow statement

	2018	Comments
Operating activities		
Net income	**2,0**	
Depreciation and amortization	**1,2**	**CASH FLOW**
Other non-cash items	**0,2**	
Changes in working capital		Final WCR - Initial WCR
(+) Δ Accounts receivable	5,3	
(+) Δ Inventory	1,0	
(+) Δ Other current assets	1,0	
(−) Δ Accounts payable	(4,7)	
(−) Δ Other current liabilities	2,0	
Net change in working capital	*4,6*	
Cash from operating activities	***(1,2)***	
Investment activities		
Capital expenditures	(14,0)	
Acquisitions and other investing activity	(7,0)	
Proceeds from the sale of non current assets	-	
Cash from investing activities	***(21,0)***	
FREE CASH FLOWS or ECONOMIC CASH FLOWS		
Financing activities		
Capital increase		
Dividends paid	(1,0)	
Sale (or purchase of stock)	-	
Increase in borrowing	24,9	
Bonds issues		
Bonds redemption		
Cash from financing activities	***23,9***	
Change in cash and equivalents	**1,7**	
Opening cash balance		
Closing cash balance		

Cash flow forecasting

Cash flow statement to FORECAST

Where the cash is from ?
Where the cash goes in ?

	EBIT after tax
+	**Depreciation costs**
-	**Change in WCR**
=	**Cash flow from operations (1)**
-	Capital expenditures *(buying non current assets)*
+	Disposal *(sale)* of non current assets
=	**Cash flow from investments (2)**
∑	**Free cash flow (1+2)**

FOCUS ON FREE CASH FLOWS

=> Cash generated by the company from its operating & investing activities

Review of financial accounting

- **Compute change in Working capital Requirement**
  - **WCR / sales x 360**
  - Given the DIO compute Inventories
  - Given the DSO compute the A/R
  - Given the DPO compute the A/P
  - => *Reminder : see CE&ROCE exercise*

Cash flows forecasting

- **Working capital requirement management**
  - Change in WCR

    WCR final – WCR initial = Change in WCR

    As long as the WCR is structurally > 0 more cash will be needed to fund WCR requirements with any additional revenues
  - Therefore WCR is first financed by internal equity then by ST debts

Cash flows forecasting

- **Example**

Compute the WCR and the DIO, DSO and DPO (ratios to sales)

Annual Sales are : 2500 $

Assets	**$**	**Liabilities +SE**	**$**
Inventories	150	Trade payables	180
Trade receivables	200	Other payables	20
Other receivables	15		
Net fixed assets	450	Equity	615
Total of assets	**815**	**Total of L+SE**	**815**

Cash flows forecasting

- **Example WCR - Solution**

  Compute the WCR and the DIO, DSO and DPO

  Annual Sales are : 2500 $

Assets	$	Liabilities +SE	$
Inventories	150	Trade payables	180
Trade receivables	200	Other payables	20
Other receivables	15		
Net fixed assets	450	Equity	615
Total of assets	**815**	**Total of L+SE**	**815**

WCR =Inventories + TR + O. R – TP – OP

= 150 + 200 + 15 – 180 - 20 = 165 $

Cash flows forecasting

- **Example WCR - Solution**

  Compute the WCR and the DIO, DSO and DPO to sales

  Annual Sales are : 2500 $

Assets	$	Liabilities +SE	$
Inventories	150	Trade payables	180
Trade receivables	200	Other payables	20
Other receivables	15		
Net fixed assets	450	Equity	615
Total of assets	**815**	**Total of L+SE**	**815**

WCR/sales = 165/2500 x 360 =23.7 days => 24 days

DIO = 150/2500 x 360 = 21.6 days => 22 days

DSO = 200/2500 x 360 = 28.8 days => 29 days

DPO = 180/2500 x 360 = 25.6 days => 26 days

Cash flows forecasting

- **Example WCR to be cont'd**

  Compute the WCR and the DIO, DSO and DPO to sales

  Annual Sales are : 3500 $

  Given the same days of inventories, days of sales outstanding, days of payables,

  Compute the new working capital and **the change in the working capital**

Cash flows forecasting

- **Example WCR to be cont'd - Solution**

  Compute the WC and the DIO, DSO and DPO to sales

  Annual Sales are : 3500 $

  Given the same days of inventories, days of sales outstanding, days of payables, compute the new working capital and the change in the working capital

  WC/sales = 24 x 3500/360 = 233$

  DIO = 22 x 3500/360 =214 $

  DSO = 29 x 3500/360 = 282 $

  DPO = 26 x 3500/360 = 253 $

  Change in WC = 233 – 165 = 68$

  Increase in WC ie less cash from operations

Cash flow forecasting

- Exercise
- New venture