

BUSINESS MANAGEMENT

ACCOUNTING AND FINANCIAL ANALYSIS



1

PUTTING IT INTO PERSPECTIVE...

- Business Management's objectives is to optimize firm's resources.
 - Material Resources (stock management, etc.)
 - Human Resources
 - Financial
- We have looked at the first two, today we will examine the third case: **Financial Analysis and Accounting**



2

FINANCIAL MANAGEMENT – WHAT IS IT?

- Objectives of Financial Management – To maximize the market value of the firm's equity (whether there stockholders or not)
- Central Concept – Is the firm sustainable financially or not? We must determine it's capacity to generate or add value. This is the financial function of the firm
- Related Questions to be answered:
 - Which Investments should the firm undertake in the long run?
 - Where can the firm obtain the necessary financial resources to finance those investments?
 - How should the daily financial management take place?



3

FINANCIAL MANAGEMENT

- Decisions of the Financial Manager
 1. **Capital Decisions** – They reflect the answer (choice) to the first question above;
 2. **Capital Structure Decissions** – They reflect the answer to the second question;
 3. **Decisions on the Net Working Capital** – Answers the third question

Let us see... (next slide)



4

FINANCIAL ANALYSIS: THE DECISIONS OF THE FINANCIAL MANAGER

1. Budgeting and Capital Decisions

Respect to the planning and management progress of long run investments

-It is the manager that must identify existing investment opportunities as well as its profitability

-The manager must take into account the capital volume involved (financing necessities), the timings of needed investments and estimated resulting future cash flows as well as the risk associated with each project.

-Generally, profitability and risk are two inversely related variables... → Choice.



5

FINANCIAL ANALYSIS: THE DECISIONS OF THE FINANCIAL MANAGER

2. Capital Structure Decisions (or Financial Structure Decisions)

Respect to the long run financing mix of assets and firms' operations – between owners' equity (or shareholders' equity, depending on whether the firm has shares) – taking into account the business' dimension as well as resulting implications for the control of the business and business solvency

- The Manager must identify funds' needs and timings;

-The Manager must identify available sources of funds and take into account its costs;

-The Manager must then decide where to obtain funds among the available sources taking into account the resources that will be released over time to pay back debts (profits...).



6

FINANCIAL ANALYSIS: THE DECISIONS OF THE FINANCIAL MANAGER

3. Decisions on the Net Working Capital

Respect to the balance between current assets and current liabilities (all short run items)

-The Manager must make sure that, each moment in time, the firm has available the **sufficient resources** to meet **daily needs**;

-Therefore, the Manager is making sure that daily operations will not be subject to **interruptions**, which would involve costs;

-The Manager must **decide** on questions such as: how much money to keep available (cash)? How many stocks should we keep? Can we / is it advisable to give credit to our clients?



7

FINANCIAL ANALYSIS

■ The Role of the Financial Manager

- To ensure the regular access to the necessary financial resources optimizing cost in function of the size and duration of needs, both for the
 - Short run (cash management)
 - Long run (strategy)



8

FINANCIAL ANALYSIS

The Environment

- General environment (namely, financial and capital markets)
- Microindustrial environment (namely, partners and borrowed capital sources, ex. Banks)

The Cost of Capital

It is determined by reference interest rates (e.g. EURIBOR), the state of the economy, of the firms' business sector and of the firm itself – its image on its potencial future profitability.



FINANCIAL ANALYSIS

■ Strategy

Market Analysis (financing sources) --> Planning (objectives, strategy of the firm) ->Control (implementation)

■ Sources of Owners' equity

(ex. Position Taking, unappropriated earnings...)

■ Sources of Debt Capital

(ex. Bank Loans, Factoring...)

Advantages/Disadvantages: These respect to effects of firm's control, Leverage, business dimension...



FINANCIAL ANALYSIS

- Planning
 - **Budget**
 - Initial Balance + cash balance (cash received – cash payments)
 + permanent assets' sales (divestiture) – acquisition of
 permanent assets + extraordinary income – extraordinary
 losses = Excess/Necessity for Funds (i.e., E/N) ;
 - Loans to be obtained – loans to be paid back – Financial Costs
 Due + Financial Income to be Received = Financial Balance
 (FB);
 - Final Balance = E/N + FB
- Implementation and Control

11

11

INFORMATION MANAGEMENT: ACCOUNTING

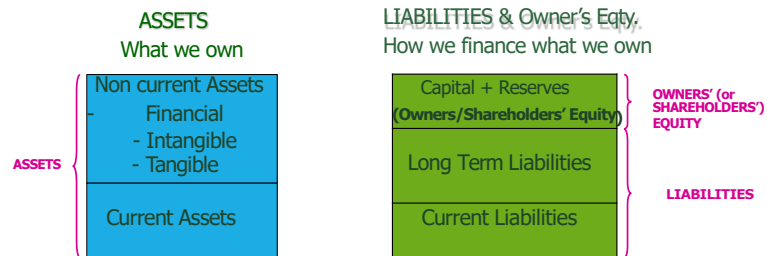
- General Accounting
 - Registers Firm's Patrimony Changes
 - Double Entry Method (an accounting entry is always set
 against another entry)

12

12

INFORMATION MANAGEMENT: ACCOUNTING

- The Firm's Balance Sheet



ASSETS = LIABILITIES + OWNERS' EQUITY (the fundamental identity of the Balance Sheet)

The Balance Sheet shows what the firm owns and how it is financed in a certain moment in time (as if it was a "snapshot" of the firm's situation in that moment).

13

13

THE BALANCE SHEET

- What we own: Assets

Items are ordered according to its degree of liquidity (ease of liquidation of each asset – or of conversion into cash)*

- Current Assets** – (Assets easily converted into Cash within one calendar year) Cash and Money Balances, Time Deposits, Debts Receivable, Stocks
- Non current Assets** – (Assets that remain in the firm for a period of time longer than one year)
 - Financial
 - Tangible
 - Intangible
- Adjustment Accounts**
- Prepayments and Deferred Income Accounts**

* This is a two-dimensional problem: how easy it is to convert an asset into cash without a significant loss in value. The fastest way to sell an asset (convert it into money) without having to give up a significant part of its value, the more liquid that asset is.

14

14

THE BALANCE SHEET

▪ **Main Assets Accounts – Non current Assets**

- **Financial Investments** – participations on other firm's capital, buildings or plots of land whose objective is to generate rents (non-related to the productive process).
- **Tangible Investments** – Buildings, productive and non-productive equipment, transportation equipment (tangible assets).
- **Intangible Investments**– patents, instalation expenses, R&D expenses (intangible assets).
- **Unfinished Investments** – Investment still not fit for use by the firm.

15

15

THE BALANCE SHEET

▪ **Main Assets Accounts – Current Assets**

- **Stocks**
- **Goods Purchased for Resale** – products purchased by the firm with the objective of being resold, with no transformation.
- **Finished Products** – Final product in productive firms, after the productive process is completed (final good if sold to a consumer, intermediate good if sold to another firm who will further transform it).
- **Unfinished Products** – products which are still in a given stage of the productive process but still aren't finished products.
- **Consumable Materials and Supplies** – products that are acquired to be used during the productive process (includes raw materials).

16

16

THE BALANCE SHEET

- **Main Assets Accounts – Current Assets**
 - **Notes Receivable**
- **Clients – notes receivable** – when the client's credit is in the form of a title or a note.
 - **Accounts Receivable**
- **Clients – current account** – clients' debts resulting from credit sales (includes transportation charges, interest, etc.).
- **Suppliers – current account** – account usually on the liabilities side, includes items such as the return of sales or payment advances on account of planned sales.
- **State and Other Public Entities** – Debts from the State or from other public entities to the firm (such as VAT to be recovered, corporate tax refunds...).
- **Partners / Stockholders** – firm loans to the partners, resulting from increases in the firms' capital.

17

17

THE BALANCE SHEET

- **Main Assets Accounts – Current Assets**
 - **Other Debts Receivable**
- **Other Debtors and Creditors** – includes all debts to the firm that don't "fit" in any of the other accounts (such as cash advances to personnel).

18

18

THE BALANCE SHEET

- **Main Assets Accounts – Current Assets**
 - **Marketable Securities**
- **Marketable Securities** – short-run applications that can be easily sold in the market (stock market, bank counter, etc.).
 - **Time Deposits**
- **Time Deposits** – bank deposits that have some sort of restriction to its immediate conversion into money (respecting the moment in which the conversion may take place or involving loss of interest).
 - **Cash and Money Balances**
- **Cash** – bills and coins in the firm's cashier.
- **Demand Deposits** – deposits with immediate liquidity.

19

19

THE BALANCE SHEET

- **Main Assets Accounts – Adjustment Accounts**
- **Provisions** – Values (estimated) which have as an objective to meet certain facts in an uncertain moment or to meet uncertain facts that affect the value of firm's assets:
 - **Marketable Securities**
 - **Doubtful credits**
 - **Stock Losses.**
- **Depreciation and Amortization of Non current Assets** – shows the loss over time of the value of Non current assets, with the objective of minorning the difference between the registered value of such assets and their actual market value.

20

20

THE BALANCE SHEET

■ **Main Assets Accounts – Prepayment and Deferred Income**

- **Prepayments and Deferred Income** – all costs and income respecting the current year that take place in a different calendar year, e.g. the following year – payments made this year which were due next year only, payments received this year respecting expenses of the following year, etc. At year's end there is a “right” over the following year: deferred cost or prepayment.

Examples:

- Interest received in February respecting to the period October;
- Rent of the Month of January paid in December.

21

21

THE BALANCE SHEET

■ How are assets Financed?: Liabilities

These include all Debts and Liabilities owed to outside creditors. Items are ordered according to the duration of the time period between the moment in which a liability is assumed and the moment in which its payment is due

- **Long run Liabilities** – payment is due over one year out from the date in which the liability originated (ex. Bank loans)
- **Short run Liabilities** – to be paid within a period of time of less than one year (ex. suppliers)
- **Adjustment Accounts**
- **Accrued Payroll and Withholdings**

22

22

THE BALANCE SHEET

- **Main Liabilities Accounts**
 - **Long Term Liabilities**
 - **Loans** – Bank and other loans.
 - **Short Term Liabilities**
 - **Notes Payable**
 - **Suppliers – notes payable** – when the debt to suppliers is titularized with a note. dívidas a pagar pela empresa pela compra de mercadorias ou matérias primas a crédito. Podem estar titularizadas com letra.
 - **Accounts Payable**
 - **Clients current account** – usually on the assets side, cases of advance payments by clients or returned sales are registered on the liabilities side..
 - **Suppliers current account** – credit granted by suppliers
 - **Other Liabilities**
 - **State and other public entities** – debts relative to the payment of fees and taxes (retained income taxes on workers' pay, social security payments due, VAT dur...).
 - **Owners** – loans granted by owners – profits not yet distributed.

23

23

THE BALANCE SHEET

- **Other Liabilities (continued)**
- **Other Debts and Credits** – other liabilities that do not “fit” in any of the above categories (ex: suppliers of Non current assets)
- **Accrued payroll and withholding** – liabilities corresponding to one year but that will only be paid the following year; values receivable this year that will only be received next year
- Ex:
 - Vacation subsidy (13th monthly salary) which workers have the right to receive, if only paid next year, part may be corresponding to this year – accrued payroll
 - Rent received in December but relative to next January – withheld income.
- **Provisions for risks and other** – values that the firm may have to pay and that are of an uncertain amount (ex: law suit against the firm still taking place).

24

24

THE BALANCE SHEET

- **How are assets Financed?: Owners's / Shareholders' Equity (or Net Worth)**
 - **Social Capital**
capital put in by the owners
 - **Reserves**
reflects the increase in value of assets due to inflation or other market factors (ex: buildings, plots of land)
 - **Retained Earnings**
earnings from previous years that were retained in the firm (i.e. not distributed to partners)
 - **Current Net Earnings**
Current year's earnings at the Balance Sheet Date

25

25

THE INCOME STATEMENT

- **Also commonly called "the profits and losses statement"**
 - This account records all revenues and all expenses for the business during any one period of time (such as a month, a quarter or a year).
 - It is used to determine the origin of profit, locate items causing unexpected expenditures, track increases in product costs or returns or even to determine the corporate income tax liability of the firm.

26

26

THE INCOME STATEMENT

- **Firms Profits**
can be broken down into
 - Operational Profits: Operational Income – Operational Costs.
 - Financial Profits: Financial Income – Financial Costs
 - Current Profits: The sum of both above
 - Extraordinary Profits: Extraordinary Income – Extraordinary Costs
 - Profits before taxes: The sum of the two immediately above
 - Corporate Income Tax (deducted) (only if profits before taxes >0)
 - Net Current Earnings: Difference between the two above

27

27

LEVERAGE

- **Leverage** – Multiplier Effect that Borrowed Capital has in the profitability of Owner's Equity

- Du Pont's Formula : $\frac{NE}{\#E} = \frac{NE}{A} \cdot \frac{A}{\#E}$

NE – Net Earnings

OE – Owner's Equity

A – Net Assets

assumption:

(Earnings before taxes + financial costs)/A antes de imposto
+ encargos financeiros)/A > cost of borrowed capital

28

28

THE INCOME STATEMENT

- The Income Statement (or profit and loss statement)

Revenues	Costs and Losses
Sales of Goods	CMVMC (Cost of Merchandise Sold and Consumed Materials)
Sales of Services	FSE (External Supplies and Services)
Work done for the firm	Personnel Interest Paid
Interest Received	Depreciation
Subsidies	Provisions
Extraordinary Revenues	Taxes
	Extraordinary Costs
	Net Earnings

NET EARNINGS = REVENUES – COSTS AND LOSSES

The Income Statement shows how Net Earnings resulted throughout a certain period of time (p. ex. one year)

29

THE INCOME STATEMENT

- Main Cost Items
- **Cost of Goods Sold and Materials Consumed (CMVMC)** – purchase cost of goods or raw materials (according to the type of business).
- **External Supplies and Services (FSE)** – Utilities (water, telephone, electricity), office materials (pens, paper...), fuel, rents, insurances, subcontracting (if part of the productive process was subcontracted to another firm).
- **Taxes** – value of taxes due.
- **Personnel** – salaries and wages, prizes, overtime, social security and other labour related costs, worker insurance, social costs (daycare, cafeteria, sports center costs...).

30

THE INCOME STATEMENT

- **Main Cost Items**
- **Depreciation** – The value of the depreciation of Non current capital during the time period considered.
- **Provisions** – funds set aside to face for uncertain events or certain events of uncertain dimension.
- **Financial Costs and Losses** – Costs with interest related to loans taken out by the firm, discounts given to customers.
- **Extraordinary Costs and Losses** – Uncollectable Debts, losses in sales of Non current assets, fines, etc.

31

31

THE INCOME STATEMENT

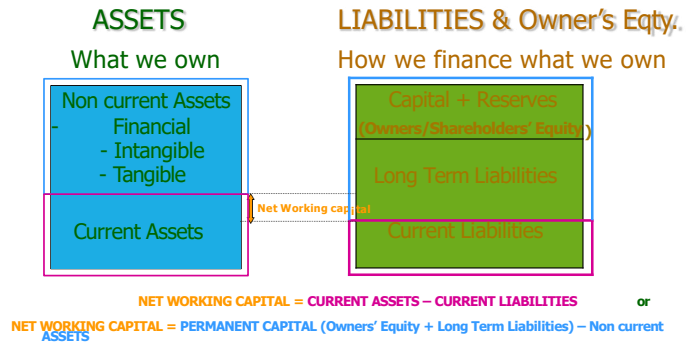
- **Main Revenue Accounts**
- **Sales of goods** – value of sales for industrial or commercial firms.
- **Sales of services** – value of sales for service providers.
- **Work done for the firm** – ex: maintenance of a building carried out by the firm's personnel, vehicle repair in own garage...
- **Subsidies** – subsidies received from Public Entities.
- **Financial Earnings (interest received)** – interest received from financial applications or loans granted by the firm; cash discounts obtained from suppliers.
- **Extraordinary Revenues** – Capital Gains from Non current Assets' sale, Recovery of credits previously given as uncollectable, etc.

32

32

FINANCIAL ANALYSIS

■ Calculating Net Working Capital



INFORMATION MANAGEMENT: ACCOUNTING

■ Main Accounting Documents

- The Balance Sheet – Shows what the firm owns and what the firm owes.
- The Income Statement – Shows Net Earnings.

INFORMATION MANAGEMENT: ACCOUNTING

■ Internal Accounting

■ Some Cost Definitions

- Fixed Costs – those that are independent on the activity level (ex. Rent)
- Variable Costs – those that vary with the activity level (ex. Electricity)
- Unit Cost – cost per unit produced (total cost/nbr units)
- Average Cost – cost per unit produced (total cost/nbr units)
- Marginal Cost – cost of the last unit produced (or, how much does cost increase if we produce one additional unit – cost on the “margin”, i.e., for a marginal increase.

35

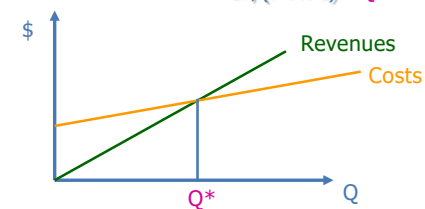
35

INFORMATION MANAGEMENT: ACCOUNTING

■ Internal Accounting

- Break-even point (i.e., point where profit is zero)

$$CF/(P-AVC) = Q^*$$



$$\begin{aligned} \text{Profits} &= \text{Total Revenues} - \text{Total Costs} \\ &= P Q - FC - VC \\ &= P Q - FC - (AVC Q) \end{aligned}$$

(note: AVC: Average Variable Cost)

36

36

FINANCIAL ANALYSIS: RATIOS

■ Financial Ratios

What are they for? What do they measure?

- The Analysis of Financial Ratios allows us to obtain several conclusions on the efficiency of the firm's financial management.
- Financial Ratios are indicators of the financial performance of a firm.

37

37

FINANCIAL ANALYSIS: RATIOS

■ Financial Ratios – Main Types

- **Liquidity Ratios** – measure the ability to face short term debts with short term assets, or the liquidity balance of the firm;
- **Leverage Ratios** – measure the relative weight of Liabilities and degree of indebtedness of the firm;
- **Activity Ratios** – measure the average length of receivables, the average length of short term liabilities, the average time stocks are kept in the firm, etc. allowing us to assess the performance of management of current assets
- **Profitability Ratios** – measure performance – to be compared with the financing costs (including that of owner's equity)
- **Market Strength Ratios** – measure market valuation (versus accounting records)

38

38

FINANCIAL ANALYSIS: RATIOS

Liquidity Ratios

$$(1) \text{ Current Ratio} = \frac{\text{Current assets}}{\text{Current liabilities (or short-term liabilities)}}$$

Purpose: Measures a firm's ability to pay its current liabilities from its current assets.

$$(2) \text{ Quick Ratio} = \frac{\text{Quick assets (Current Assets-Stocks)}}{\text{Current liabilities (or short-term liabilities)}}$$

Purpose: Measures a firm's ability to pay its current liabilities without relying on the sale of its inventory.

$$(3) \text{ Immediate Liquidity Ratio} = \frac{\text{Cash and Deposits}}{\text{Current liabilities}}$$

Purpose: Measures a firm's ability to pay its current liabilities without relying on the sale of its inventory or on accounts receivable

39

39

FINANCIAL ANALYSIS: RATIOS

Leverage Ratios

$$(1) \text{ Debt to Equity Ratio} = \frac{\text{Borrowed Capital (Total Liabilities)}}{\text{Owners' Equity}}$$

Purpose: Measures a firm's financial leverage.

$$(2) \text{ Long Term Endebtness} = \frac{\text{Long Term Liabilities}}{\text{Total Capital (Total Liabilities + Owners' Equity)}}$$

Purpose: Measures a firm's degree of capital endebtness .

$$(3) \text{ Times Interest Earned Ratio} = \frac{\text{EBIT (Earnings before depreciation, interest and taxes)}}{\text{Interest Paid}}$$

Purpose: Indicates the number of times that a firm's interest expense is covered by earnings.

$$(3) \text{ Non current Asset Coverage Ratio} = \frac{\text{Permanent Capital}}{\text{Non current Assets}}$$

Purpose: Indicates the proportion of Non current assets covered by permanent capital.

40

40

FINANCIAL ANALYSIS: RATIOS

Activity Ratios

$$(1) \text{ Receivables Turnover Ratio} = \frac{\text{Credit Sales}}{\text{Average Accounts Receivable}}$$

Purpose: Indicates the number of times that a firm collects its accounts receivable each year.

$$(2) \text{ Age of Receivables} = \frac{365}{\text{Receivables Turnover Ratio}}$$

Purpose: Indicates the length of time normally required to collect a receivable resulting from a credit sale.

$$(3) \text{ Suppliers Turnover Ratio} = \frac{\text{Purchases}}{\text{Average Accounts Payable}}$$

Purpose: Indicates the number of times that a firm pays its accounts payable each year.

$$(4) \text{ Age of Payables} = \frac{365}{\text{Payables Turnover Ratio}}$$

Purpose: Indicates the length of time normally elapsed before paying a credit purchase.

$$(5) \text{ Inventory Turnover Ratio} = \frac{\text{CMVMC (cost of goods sold)}}{\text{Average Value of Inventories}}$$

Purpose: Indicates the number of times that a firm replaces its stocks each year.

$$(6) \text{ Age of Stocks} = \frac{365}{\text{Inventories Turnover Ratio}}$$

Purpose: Indicates the average length of time inventories remain (or are kept) in the firm.

41



FINANCIAL ANALYSIS: RATIOS

Profitability Ratios

$$(1) \text{ Profit Margin Percentage} = \frac{\text{Net Earnings}}{\text{Sales}}$$

Purpose: Indicates the percentage of each sales dollar that contributes to net income.

$$(2) \text{ Return on Assets} = \frac{\text{Net Earnings}}{\text{Total Assets}}$$

Purpose: Measures the rate of return a firm realizes on its investment in assets.

$$(3) \text{ Return on Equity} = \frac{\text{Net Earnings}}{\text{Owners' Equity}}$$

Purpose: Measures the rate of return a firm realizes on its owners' equity.

42



FINANCIAL ANALYSIS: RATIOS

Market Strenght Ratios

$$(1) \text{ PER (Price-Earnings Ratio)} = \frac{\text{Current Market Price of Current Stock}}{\text{Earnings per share (for the most recent 12 months)}}$$

Purpose: Indicates the amount investors are willing to pay for each \$1 of a firm's earnings.

$$(2) \text{ Market Price to Book Value Ratio} = \frac{\text{Current Market Price of Current Stock}}{\text{Book Value per share}}$$

Purpose: Indicates the amount investors are willing to pay for each \$1 of a firm's net assets.

43

43

FINANCIAL ANALYSIS: HOW TO PERFORM ONE?

- Balance Sheet Analysis – what to notice:
 - **Structure**, i.e., relative wheigh of accounts (attention to some accounts in particular such as Provisions for doubtfull credits, Inventories of Finished Products...)
 - **Net Working Capital**
 FC = Current Assets – Current Liabilities (or Short Term Liabilities)
 (or = Permanent Capital (i.e., Equity + Long Term Liabilities) – Net Non current Assets);
 - Relate to information from **Financial Ratios** – Liquidity, Activity and Leverage Ratios.

44

44

FINANCIAL ANALYSIS: HOW TO PERFORM ONE?

■ Balance Sheet Analysis

- Activity Cycle = (accounts) Clients + Inventories + Suppliers
- Activity Cycle = Age of Inventories of raw materials + Duration of the production cycle + Age of Final Product Inventories + Rotation on collectibles

45

45

FINANCIAL ANALYSIS: HOW TO PERFORM ONE?

■ Income Statement Analysis

- **Structure**, i.e., relative weight of accounts (ex. FSE, Personnel, Services...).
- **Earnings**: Operational Earnings, Financial Earnings, Current Earnings, Extraordinary Earnings, Earnings before Taxes, Net Earnings.
- **Gross Activity Margin** = Sales + Variation of production (i.e., Work done for the firm +/- changes in inventories and work in progress) – Purchases of Raw Materials +/- Variation of inventories of raw materials.

46

46

FINANCIAL ANALYSIS: HOW TO PERFORM ONE?

■ Income Statement Analysis

- $\text{Gross Added Value} = \text{Gross Activity Margin} - \text{Subcontracts} - \text{FSE} - \text{Indirect Taxes}$

(Note that the variation rate of Value Added can be compared to that of the sector and to that of the economy, i.e., GNP)

- $\text{Cash-flows} = \text{Gross Added Value} - \text{Personnel} - \text{Taxes (on profits)} - \text{Financial Costs}$
- $\text{Net Earnings} = \text{Cash-flow} - \text{Depreciation} - \text{Provisions}$



47

FINANCIAL ANALYSIS: HOW TO PERFORM ONE?

■ Ratios

Important to compare with average of the activity sector, or with the best/larger firm

(ex. if a small or medium firm see IAPMEI Excellence criteria for small and medium firms (<http://www.iapmei.pt/iapmei-art-03.php?id=969>), if Construction see IMOPPI (http://www.imoppi.pt/stable/merc_const/portaria9942004.html) and Central Banks Balance Sheet Central (<http://www.bportugal.pt>), the latter useful for all sectors of activity; if firm has shares sold in the market, see Stock Market (http://pt.portaldebolsa.com/pt/index_entry.asp) e CMVM (<http://web3.cmvm.pt/sdi2004/emitentes/>))

- **Service Sector – Most relevant accounts differ substantially from industrial firms, ex. Services, FSE, Personnel**



48

FINANCIAL ANALYSIS: HOW TO PERFORM ONE?

■ Some Notes

How to determine the value of Purchases? We know that at year's end what is in inventories must be equal to what we had at year's beginning plus what we purchased minus what was sold. Therefore: Final Inventories = Initial Inventories (see previous year's final inventories value) + Purchases – CMVMC. We can calculate Purchases since we know the values for all other items in this equality.

The notion of Cash Flow: It is the value of Net Earnings plus depreciation and provisions – because these two items do not represent entries or exits of cash, although they stand for a real cost – because these two values have been subtracted as cost to calculate net earnings, if we want to find the value of cash flows (net) we must add them back.

Gross Added Value: Income – Purchases – FSE + Variation in Production



49

AN EXERCISE FROM AN EXAM (LEVERAGE)

$$\frac{RL}{CP} \equiv \frac{RL}{A} \cdot \frac{A}{CP}$$

■ Exam Question:

Suppose that a firm consistently presents, throughout the last years, operational results of approximately 10% of its net assets. Currently, the firm has no debts and has zero financial earnings.

If you know that it is possible for this firm to obtain a loan at a cost of 5% per year, calculate the impact on equity profitability resulting from taking out such loan in order to double firm's assets.

Assume that it is expected that operational results will continue to represent 10% of its net assets, even after this operation takes place.

Remember that net earnings is the sum of operational earnings, financial earnings and extraordinary earnings. A

Assume that extraordinary earnings are zero.

Answer: Return on Equity = 0.15



50

EXERCISE 1 - SOLUTION

Exercise 1

1. Constitution of a firm with a deposit of 40000 euros

Assets	Equity and Liabilities
Current Assets	Equity
<i>Cash and Money Balances</i> 40000	<i>Capital</i> 40000

2. Taking out a loan for a 5 year period in the amount of 60000 euros.

Assets	Equity and Liabilities
Current Assets	Liabilities
<i>Cash and Money Balances</i> 60000	Long Term Liabilities 60000

51

51

EXERCISE 1 - SOLUTION

3. Purchase of Computer equipment in the amount of 10000 euros, paid in cash.

Assets
Non current Assets
<i>Tangible Assets</i> 10000
Current Assets
<i>Cash and Money Balances</i> -10000

4. Purchase of goods in the value of 20000 euros, payable in 90 days.

Assets	Equity and Liabilities
Current Assets	Short Term Liabilities
<i>Inventories</i> 20000	<i>Suppliers c/a</i> 20000

52

52

EXERCISE 1 - SOLUTION

5. Sale of goods, 1/3 in cash and 2/3 to be paid in 30 days, in the value of 15000 euros. These goods had been purchased at a cost of 7500 euros.

Assets		Income Statement	
Current Assets		Costs and Losses	
<i>Inventories</i>	-7500	<i>CMVCM</i>	7500
<i>Clients c/a</i>	10000	Revenues	
<i>Cash and Money Balances</i>	5000	<i>Sales</i>	15000

6. Payment of salaries to workers: 3000 euros.

Assets		Income Statement	
Current Assets		Cost and Losses	
<i>Disponibilidades</i>	-3000	<i>Personnel</i>	3000

53

53

EXERCISE 1 - SOLUTION

7. Payment of several utility bills (electricity, water, telephone) : 1000 euros.

Assets		Income Statement	
Current AssetsActivo Circulante		Costs and Losses	
<i>Cash and Money Balances</i>	-1000	<i>FSE</i>	1000

8. Payment of interest: 6000 euros.

Assets		Income Statement	
Current Assets		Costs and Losses	
<i>Cash and Money Balances</i>	-6000	<i>Interest (st Financ.)</i>	6000

54

54

EXERCISE 1 - SOLUTION

9. Goods in stock destroyed by accident (not insured) : 500 euros.

Assets	Income Statement
Current Assets	Costs and Losses
<i>Inventories -500</i>	<i>Extraordinary losses 500</i>

10. Depreciation of computer equipment: 2500 euros.

Assets	Income Statement
Non current Assets	Costs and Losses
<i>Accumulated Depreciation 2500</i>	<i>Depreciation 2500</i>

(Note: Net Non current Assets = 10000-2500 =7500)



55

EXERCISE 1 - SOLUTION

Income Statement

Costs and Losses		Revenues	
CMVMC	7500	Sales	15000
FSE	1000		
Personnel	3000		
Depreciation	2500		
Financial Costs - interest	6000		
Extraordinary losses	500		
Net Earnings	-5500		
	15000		15000



56

EXERCISE 1 - SOLUTION

BALANCE SHEET

on xx/xx/2019

ASSETS	GA	DP	NA	EQUITY	
Fixed				Capital	<u>40 000</u>
Tangible Non current Assets..	<u>10 000</u>	<u>2 500</u>		Net Earnings of the year	- 5 500
<u>7 500</u>					<u>34 500</u>
	10 000	2 500	7 500	LIABILITIES	
Current				Long Term Loans.....	60 000
Inventories	12 000	-	12 000	Suppliers c/a	<u>20 000</u>
Receivables - (cp)					<u>80 000</u>
Clients c/a.....	10 000	-	10 000		
Cash and Deposits	<u>85 000</u>	-	<u>85 000</u>	Regularizatin acc.	-
	<u>107 000</u>	-	<u>107 000</u>	TOTAL EQUITY AND LIABILITIES	<u>114 500</u>
Regularization acc	-	-	-		
TOTAL ASSETS	117 000	2 500	114 500		

57