

# A useful case study on decision making related to financing methods: learning about finance by study case

Voicu, Ionut Cristian; Voicu, Vasilica and Voicu, Andreea Raluca

June 2008

Online at http://mpra.ub.uni-muenchen.de/9168/ MPRA Paper No. 9168, posted 17. June 2008 / 10:22 Being a young graduated student I understood the importance of the access to information. And how could we become better, unless by studying already existing know-how?

I know that I am not the best English writer and speaker, but this book wants to be a pulse for you, the readers, to enhance what you know in the present time and in the near future. Ionut Cristian Voicu (BCR) Vasilica Voicu (Romanian American University)

**Ionut Cristian Voicu** 

# LEARNING ABOUT FINANCE BY A REAL-CASE STUDY - FINANCING METHODS -- BUDGETING, INCOME ACCOUNTS, AND BALANCE SHEET FORECASTING METHODS -

Added-Value: Financial indicators backed by "Circle - view" geometrical analysis

# **Masterpiece of finance**

"Value – the amount of issues giving the item's price; the money balance of object."

### Resume

The investment value is forecast as being the most probable and achievable value.

The goals of financial management and the preference relating the financing resources have fluctuated historically.

The forecast of performance has to be done step by step upon each element or group of elements.

The future marketing strategy is playing a major role in the sales forecast, while the historical costs are useful when computing the expenses forecast.

The finance, nothing else but the pure research finance, has studied and explained the process of valuation as a variable of work skills' interest. When being said "work skills", it means employees and employers, capital and rent, money and securities. The value of work production is the exchange price. This is nothing else but a weighing scale of needs and expectations. Each businessman has its own scale of importance coefficients for his/her wealth backed by expectations and economic synergy. As a result of such a *financial information-melting* process the economy has evolved to the actual stage of negotiation, disclosure, competition, needs' satisfaction, and supply vs. offer phenomena. It can with no doubt be said that the impulse of finance is the value of trade, motivation of fighting, the sense of life style. No one can says that he/she knows the secret of fortune, but there are people who dared to get involved into the exchange economy. Thus these operators are able to cover their increasing actual expenses, needs and expectations by the financing instruments (money, securities, gold, land, so on) previously inherited or acquired on

- money market,
- financial market,

or by

- mergers and take-over,
- selling and buying retail/wholesale.

The business partners often have different goals: the seller wants getting more money and the buyers – spending less. As a result the price of exchange action is considered as the correct or market value where demand met the offer in price and quantity. The question is: What

was their reference price? Well, the reference price was the computed result of an evaluation methodology more or less scientific, with more or less hypothesis and premises. The science of finance has been developing such evaluation methods raging from those based on cash-flow up to the patrimonial ones. There should be well understood that no sign of equality is between the market price and the computed value. The market price represents the point where offer meets demand in price and quantity, while the computed value is used as a probable price being the result of subjective hypothesis and accepted standards of measurement.

Despite the wide range of financial theories, it is important not to forget the common elements found among the value's definitions:

- the value is seen as the most probable price;
- a free market economy and mechanism are required;
- there are used many terms indicating the target value: market value, correct value, liquidity value, residual value, net value, investment value, book value, selling value, so on. No matter which terms of value are used, finally all are the result of financial analysis of financing resources.

# **Financing objectives and resources**

The science of finance is a continuous chain of events looking for different objectives. Depending on the chosen targets there are done various analysis and forecasts on micro- or macroeconomic levels.

Taking as reference point the dynamics of importance of management perception in area of activity objectives among a portfolio of a certain vector of East European stock-exchange listed companies, a dissertation study<sup>1</sup> on that (East European) country showed the following dynamics recorded during a 10-years period:



\*1 point- unimportant; 7 points – high important; time period – 10 years study

<sup>&</sup>lt;sup>1</sup> Andreea R. Voicu - Research study included in graduation dissertation, Academy of Economic Studies, Faculty of Finance Insurance Banks and Stock Exchange (Romania), 2005

- the orientation of management toward one or another objective is often more a psychological decision rather than an appraisal analysis. It is necessary a highly motivation self-feed-back control of the decision making process in order to have the best chance to fit the shareholders' expectation.

Taking in consideration the preferences toward different financing instruments, there are recorded the following evolutions for a 10-years period:



Figure no 2 – Financing instruments

it shows the effect of a down trend of interest rates on money market and the effect of increasing role of economic cycles. It's a momentum when the projects' financing resources are cheap money for borrower and expensive for the lender. The lower the interests rates, the narrower the spread between banks' active and passive interests rates, and the higher the pressure on financial markets for cutting expenses.

Related to the management resources' mix (choice), the financial analysts have to be ready to see the investment climate. In order to analyses such a phenomena, a close relationship has to be identify between short term and long term interests rates. There is a worldwide opinion about them: excessively correlated-in-terms high interest rates lead to no motivation for spending and investments, so the price of decreasing the inflation by such monetary policy is a downtrend in GDP together with all its unwanted effects, while the lower interest rates lead to a good investment climate being under the threat of inflation and to a possible low capitalization of banks. But the appraisal of macroeconomics policies and inflation periods is not the plot of this book. Thus, all what it can be done is to motivate you to acquire macroeconomics knowledge by reading additional professional books. So you will be able to use and interpret, adopt and implement investment decisions under minimized risks. Corporations/companies usually have much more financing needs during and immediately after the economic booms, but their lowest money needs come after the recessions have reached the bottom momentum:



Figure no 3 – Investment money demand

The financing decisions are always under the pressure of a mix of factories (consisting in business risk, interest risk, market risk, etc.), backed by several vulnerabilities (political and economic weakness, foreign trade dependency, capital flows, regional instability, and so on).

# Important recommendations of forecasting methodology

- The step-by-step appraisal of forecast means improvement of existing links between independent variables with the dependent ones.
- The process of data collection and interpretation generates a lot of residual influences (i.e. influences from the human expectations upon the working capital structure, profitability, average periods, sales and revenue, costs and trends). Thus the analysis and methodology have to consider as being useful to adopting a pessimistic variant doubled by an optimistic one as action of response to the subjective chosen hypothesis. But if there is no time for such laborious work, the analysts could adopt just one medium optimistic analyses (if there is a boom period), or medium pessimistic one (if there is a recession).
- The forecast period has to be fit according to the each company goals: payables, receivables, working capital, assets buy/sale, dividend payments, so on. All these aspects require continuous

correlations on the labor policy, investment trends, production equipment regeneration, loans and repayments, maturity, acquisitions, and expenses vs. revenue.

- The main elements of the capital are considered to be the equity, legal reserves, retained profits, long term financing loans.

# Sales forecast

Such effort comes firstly with a marketing plan about economic potential, market share, suppliers and distribution channels, market dispersion, etc. There are issued hypothesis/ premises upon the offer and supply, potential and perspectives, subsides and facilities, financial products' history. The actual researches in these areas are trying to explain the phenomenon by financial and quantitative methods, and by mathematics links. There are widely used mobile averages, auto reversibility. white noise concepts, lags. differences. correlation degree, so on. The forecasting base is represented by the amount of sales being the reference point of the other dependent variables: salaries, raw material, operating costs, inventory, receivables, administration level, cash and current loans, financial/non financial long terms loans.

# **Expenses forecast**

The analysis cares the structure of expenses being items which values could increase/decrease at a higher rate (i.e. -/+ 5%) than the sales value rate. Several linear econometric models of first degree are likely to look as the followings:

Item value(y) = A \* Sales(x),

Item value(y)=A \* Sales(x) + Constant

all coefficients are computed on a financial base, usually being used the 1000 monetary units revenue's proportion related to the chosen premises and strategic goals, macroeconomics practice, competition, so on.

By its specific characteristics the financial forecast uses budgeting as an action way for fulfilling the objectives, and the finality depends on the realistic analysis process. There is usually issued an investment schedule, a production plan, a feed - back process on performance variance, in order to minimize the effects of unexpected events. Budgets should not be too much detailed, in fact they only represent overall actions for increasing the shareholders' wealth. Otherwise the management adaptability to market needs is diminished. About the working hypothesis their utility consists in the subjective evolutions on the company and economy trends as a result of previously taken decisions of management with direct effect on forecasting behavior. One important example is given by externalities – these are external effects not due to the added value but to the favorable conjuncture in resources allocation. Such positive or negative effects could be often generated. Thus a necessary condition is to balance the expectation with the possibility of production and solving financial crises.

Depending on the degree of representative level, the following methods are used by the analysts :

- probability methods known changing variables, known happening probability, expected variance;
- uncertainty methods unknown changing variables, unknown variance;
- certainty methods known changing variables, known variance and evolution.

#### Notes

Evaluation methods Exchange price Financing instruments Financing needs Financing objectives Forecast methodology Goals Investment climate Resources Sales forecast Expenses forecast Value definition

# Statistics and geometrical design as tools of the risk and performance analysis

### Resume

Quantitative statistics models come to reveal the risk measure. Time interval analysis should cover at least 2-3 years of continuous activity.

The limitation of chosen financial indicators comes from the data disclosure availability and working principles.

The objective is a lower risk of adopting a wrong financing strategy. The financial indicators should be enhanced by a circle view graphic for a better fitting of conclusions and observations. That methodology supposes an allocation of one graphic axe to each chosen indicator.

The overall performance is represented by the geometrical surface resulting from the correlations and juncture of activity variables.

The financial economy's environment has as result a <u>strong</u> association of money market variables. This point of view has its arguments arising especially from the effects of investment climate and lending behavior. By the new modern analysis techniques, the participants (borrowers and lenders) are involved in the process both as the financial analysts and also as the analyzed subjects/objects. All these arguments gathering into a great competition will have the solution for achieving a higher performance among the contractual parts.

According to the spirit of mathematics existing among all researchers, each financial analyst (senior or junior experience) must be able to apply quantitative statistics developed by the software companies so having the capacity of description the economic links among chosen variables. The linear or nonlinear models born by such studies will finally mean more than just the objectives, they will come to reveal the economy and to describe the risk measures.

# **Round-view financial analysis**

My professional experience acquired on the banking area as financial analyst of the performances of branch management and lending negotiations has been sustaining the opinion related to the necessity of modeling the performance's financial indicators of each borrower/client by connecting to their historic variance. Thus the idea intended to be promoted is to unite / join several financial indicators inside one chart (called round-view or circle-view chart) and to offer an additional analysis in time and space. It implies the use of working principles and procedures, establishment of objectives – all these coming to be an image of each individual experience and expectations.



# Modeling the series of financial indicators

Figure no 4 –Shapes of performance graphics

# **Working principles**

The applied methodology is set on a research done upon a database of reported indicators of Stock Exchange Listed Companies (having market value due to the listing acceptance's procedures), and which is related to the individual financial performances of chosen company.

The working principles can be noticed as it follows:

- **A.** Performance's interpretation is improved by a graphical representation, without any relation to any standard indicator other than the database of finance-statistics investigation.
- **B.** The analysis requires representative aspects consist of: net profit and a continuous activity for at least 2-3 years, information transparency, professional management and accountability competence, market capitalization, acceptable liquidity, and low activity volatility.

**C.** The limitation of chosen financial indicators comes only from the availability of data disclosure, being obtained the following proposed default matrix that can be increased or decreased in axes number:

X1 - Gross Profit / Asset

- X2 Liabilities / Net worth
- X3 Sales / Assets
- X4 EBIT / Interests
- X5 Self Financing / Liabilities
- X6 Average Payment Period
- X7 Quick ratio
- X8 Current ratio
- X9 Net Profit / Net wealth
- X10 Gross Profit / Sales
- X11 Net worth /Assets
- there can be more or less than eleven independent variables according to each user's needs and data availability.
- **D.** The model has the goal to verify the cases when the maximization of covered surface is obtained.
- **E.** The analysis requires an allocation of one graphic axe to each chosen indicator, and line connection of indicators' computed values for each financing method and yearly financial exercise.
- **F.** The methodology has applicability upon the different sizes of companies (small, medium, or consolidated balances). The importance is that their assets and liabilities dimensions, property form, and Stock Exchange listing acceptance of the studied subjects do not matter (the applicability is ranging from small companies to the big ones).

# Objectives

The main objectives of such application are:

- 1. Obtaining of a *dual* methodology for a "high velocity" visual diagnostic test of borrowed customers;
- 2. Analysis under conditions of real time changes for liquidity, solvability, profitability, gearing, and so on;
- 3. Disclosure of weakness and strengthen of the financing plans. There is a high opportunity to focus exactly on the required aspects;
- 4. A lower number of wrong financing decisions;
- 5. The cutting down of time cost (if necessary);

6. New and useful database for all involved analysts.

# Working procedures

The brief description of procedures will touch the following aspects:

- a. The geometrical picture will assign one axe to each statistical analyzed variable in order to disclosure the company's performances;
- b. The representation of computed values for the chosen variables;
- c. The establishment of activity risk in terms of minimum surface accepted;
- d. The joined-axes representation in order to watch for the interested goals of financial analysis (maximization of surface means better operational performance);
- e. The choice of a time interval;
- f. The correlation analysis between financial indicators and the financing methods according to the "round view" interpretation.

A previously described analysis done by "circle view" procedural methods, would show the following operational advantages:

- Improve of decision making;
- Simplifying and easiness of data interpretation;
- Disclosure of borrowers' weak-strong points;
- Reliable comparative process using accepted indicators;
- Dynamic approach of individual financial performance;
- Comparable indicators having different unit scale;
- A higher certitude of financial analysis.

#### Notes

Econometric model Market variable Objectives Operational advantages Performances Procedures Risk measure Round-view chart Significance coefficient Stock Exchange regulations Variables Working principles

# **Case study**

# Resume

The external macroeconomic variables like investment climate and inflation have a high influence on management strategies. The overall activity analysis implies a disclosure of shareholders history, employment policy, building infrastructure ecology, domestic and foreign market competitions, performance of the last two years activity, investment strategies, cash flow influences, expenses and revenue forecast. Each financing method has its own influences on the balance sheet and profitability accounts. *The working principles and hypothesis are not altered by the financing* decisions. The analysis should cover a historic period of at least 2 years, and a forecasting period of 4 to 5 years seen as a minimum pay-back time interval of investment. The circle view analysis is used to justify and enhance financing decisions.

# **Pointing the truth**

Like any other decisions making area, financial decision is nothing else but a choice between many possible actions. In the contemporary world, all good decisions are subjects of the following analytic process:

#### a. Defining the objectives

-the making decision persons should know that the direction of their action has a final purpose. Thus, in the case of an unknown desired destination, the managers have no possibility for choosing the right action way. Among them, the most important objective often chosen is the maximization of shareholders wealth.

#### **b.** Financing cost

-it is nothing else but a step-by-step cost of opportunity related to the acceptance of an action way and the rejection of all the others ones. Thus we must underline at least theoretically those characteristics that are linked to different action ways for obtaining resources and financing investments. Being necessary for both the financing decision and resources use, this objective requires a reliable analysis of the past results and future ones. Under these circumstances the human error in the data process is unavoidable, and the importance of a competitive managerial team comes as a necessity. Financial policy should be the result of a decisional analysis between effect vs. effort, necessity vs. available assets. So, the present part of the book will come with a study done upon several possible financing resources, together with their characteristics and implications.

Irrespective of the company's option of financing method of its activity, the management has to be aware that a great influence comes from the global investment behavior. Another influence is the inflation - almost as important as the first one, because it can make an orientation of investor toward other financial or money instruments. Usually the investors use more than one money resource, so it is important for them to know what is the weighted average cost of capital:

# WACC= $\Sigma C_i * p_i$

- where  $p_i$  is the participation percent for each resource, and  $C_i$  is the cost measure of that resource.

Previously identified elements (subjects) have to be well understood and represent an important chapter of the investment risk analysis. The analysts' team has to carry out programs and tasks built for longer and longer periods of time. The perspective of economic problems can be identified at both the microeconomics levels coming from the velocity of structural changes, and macroeconomics levels.

# A. ACTIVITY ANALYSIS OF ARCCRA S.A. COMPANY (at least 2-3 years period)<sup>2</sup>

#### 1. Overall information, short-time history

**Description:** XYZABC SA is a public trade company, registered at the Chamber (Office) of Trade under number (!?!)..... located in (!?!)..... street .....phone-fax (!?!).....

Issued shares being worth M\_U 66,545,250 thousand (*the chosen measure unit is M\_U as the intention was to increase the difficulty degree due to the* necessity of forward exchange rate analysis), divided into a number of 2,661,850 shares with a nominal (face) value of M\_U 25,000. The company has the fiscal address in the region of (!?!) ....., account number (!?!)...., the regular client business bank is XXXE-Commercial Bank.

<sup>&</sup>lt;sup>2</sup> The essential elements were highlighted

T-1-1- - - 1 (M II d)

1

Its main **activity objectives** according to the statute is the production and trade for the alcoholic and non-alcoholic drinks, dregs, transportation of goods, import-export activity and other different services.

There are about 1,629 employees, structured as following:

- executive management te	am 3
- execution workers	180

- high skill workers	1,446
----------------------	-------

The company was established in 1881 by (!?!)...... In 1909 it became a closed company and in 1948 there was a **take-over** by (!?!)...... Its name has been changed in ISIS ARCCRA". In 1971 it **merged** with (!?!)....., again changing its name to the present one.

The **main financial data disclosure for the last** 3 years of activity:

		Table not (	M_O inousana)
Specificity	2003	2004	2005
Revenue	8,272,840	20,220,706	39,508,217
Expenses	7,865,814	19,583,370	39,036,712
EBT	407,026	567,207	514,480
Borrowings	1,660,550	2,801,466	10,139,996
Dividends	89,606	124,846	9,035
Long term assets	10,438,217	10,505,057	68,724,879
Depreciation	596,620	1,011,492	952,869

### 2. Employees approach

The legal labor contracts for 2005 are negotiated between the company management and the two **existing syndicates** (**!?!**):

- ARCCRA Syndicate

- ARCCRA' ISDW (Independent Syndicate of Workers )

The individual labour contracts are establishing (!?!).....limits on the wages and bonus depending on the efficiency, experience and high skilled work. The obligations toward community budget have been delayed due to the lack of money flow in the banking account at the maturity of the last year exercise, and that incident has generated legal penalties (!?!)....of M\_U 260,528 thousand in 2005.

The executive **management** is structured into:

- o President
- Economic manager
- Trade and technical manager.

### **3.**Pollution and environment

ARCCRA S.A. has been equipped with a modern biomechanical **nonpolluting plant** with a capacity of 171 litters/sec since 1987. The **Law of Waters** no. (!?!) ... and the law no..... have been a constant concern of the management, in order to obtain a higher protection against **pollution factors** (!?!)..... Thus, the technological products are used to obtain animal food, huge quantities of Plastic-Fluoride...., or even raw for thermo- or electric power stations.

The company possesses all necessary **legal approvals** (!?!) ..... for his plants from the environment authorities.

#### 4. Infrastructure

following

The legal documents indicate an operational land surface as

ionowing.	
- total surface(st)	95,235 sqm
- building surface(sc)	33,640 sqm
- road surface(str)	44,504 sqm
- network surface(sr)	6,461 sqm
- free surface(si)	10,630 sqm
- build unfolded surface (sd)	52,800 sqm

The quantity index , the percent of using land is: POT=(sc+str+sr)/st = 88,84 %The quality index, the coefficient of unfold land is: CUT=(sd+str+sr)/sr = 1.09

#### 5. The marketing of products

The analysis of present stage of world economy leads (!?!) ..... at the conclusion that the countries/country have/has gone through an economic recession/ boom (?!). The beginning of the economic boom premises for them is set to have happened in ...... The world market of alcoholic drinks is a (?!) monopoly/non monopoly-**type market** of global acting companies like:

			Та	ble no 2
Company	Country(!?!)	Sales(!?!)	Profitability(!?!)	Employee
				S
A(!?!)	G Br	11,000	11.0	138,000
B( <b>!</b> ? <b>!</b> )	G Br	5,000	16.0	85,000
C(!?!)	G Br	3,700	11.0	35,000
D(!?!)	G Br	2,300	12.7	62,008
E( <b>!?!</b> )	N et	2,500	9.0	29,000

F(!?!)	G Br	2,900	32.0	19,000
G(!?!)	F ra	2,400	29.0	14,000
H(!?!)	D en	1,100	9.0	12,008
I(!?!)	G Br	1,100	20.0	30,000

The company's **value of exports** (!?!) ...has been around USD 3,200,800, obtaining an average price of 1.61 \$/litter, below the average price of the other producers and at the limit of manufacturing costs in 2005. The **export percentage** in the overall production was about 8%. For avoiding any export losses due to forecasted incoming high costs, our firm has to change its actual plants(!?!) .... with others more efficient.

The **domestic market** has a shares' coverage (!?!) .... coming from six important companies including our company.

#### 6. Economic and financial results for 2005 and 2006(four months)

- Analysis of balance sheet.
- Analysis of profit and loss account

#### Pointing the financial information

The methodology is based on the correlation existing between the **assets**, **liabilities** and **shareholders wealth**. For the first four months of 2005, there has been an increase in the receivable with bad effects upon the company's independence, because the investment program is more dependent on the new **financing resources**. A higher attention is imposed to the **juridical department** for retrieving this elements. A good **sign** comes from a low **rate of leverage**, which means a possible future increase in debts. *There has to be noticed a production program that is set for meeting new market requirements*. The value of overall revenue in 2005 is M\_U 39,508,217 thousand (of which the operating sales are about M\_U 38,520,479 thousand).

Structure for company's balance sheet is presented in the next graphic:



Figure no 5 – Term structure of assets



Figure no 6 – Structure of resources

The company's potential **capacity of production** has not been fully used due to a **conjunctural** decrease in the sales that has determined both lower profit and lower revenue.

About the **expenses** (it can be noticed) they are at a level of  $M_U 988$  for every  $M_U 1000$  revenue, leading to a small profit. In 2006 for the first four months, the company recorded  $M_U 1,314,053$  thousand loses but there is forecasted a profit by the end of the year. Considering a number of 1,629 employees for 2005, there results a **labour productivity** of  $M_U 24,253$  thousand per worker, and for the present year it climbs at  $M_U 29,667$  thousand per worker (almost 20% higher).

# Analyzing financial indicators

Using the indicators obtained by the conversion of data in the balance sheet for 2005 and 2006, it can be seen a little **increase in the assets** value from  $M_U$  80,371,054 thousand to  $M_U$  80,525,181 thousand.

The proportion of long term assets into total assets has been facing with a decrease from 85.51% to 85.17%, which in absolute value represents M\_U 142,748 thousand. About the current assets, they have known an increase from 14.49% to 14.83% in 2006, which was M\_U 11,943,050 thousand (including consolidated accounts). But there is still maintained a **warning signal** related to the company's **capacity of adapting** to the possible market changes. It is recommended under these conditions a higher level for the raw materials and their use. Besides, the inventories have a proportion in the current assets of 53.66% in 2005 and 53.99% in 2006, while receivable arrives at 26.53%, respectively 23.42%.

**Cash** of M\_U 721,294 thousand (6.79% of current assets in 2005) is set at a lower limit in present, M\_U 470,583 thousand (3.94%). This number has to be compared to an optimum of 30% and increased as a condition for a better economic activity. But the statement shows a retraction in the cash flow through the banking system, so it is necessary an **increased number of cash contracts** and a rejection of **lending policy** toward its customers.

Regarding to the required funds for investments, the financing by **internal capital** has been reduced to 85.23% (in 2006) as compared to 87.25% (in 2005). The percent of borrowed money in the overall resources arrives at 14.77% from 12.75% in 2005 (funds due to be paid in a period more than one year 2.95%) having a good structure.

The difference between long term resources and fixed assets has a downtrend from M\_U 7,195,870 thousand to M\_U 5,485,408 thousand, being the result either of the continuous reduce of "permanent" funds or the increased fixed assets. The ratio of the previous value divided by the current assets has been lowered for the 2006's first term at 45.93% from 61.8%. The number of participation for this value to the revenue has recorded an uptrend from 5.5 (times) to 8.65 (times) in 2006.

**Net working capital** (using the formula: inventory + receivable - current liabilities), has been reduced with almost  $M_U$  1,459,751 thousand. The effect is a lower cash flow at the first disposal (demand). Thus the company is borrowing on short term the notes of  $M_U$  2,857,774 thousand in 2006.



Figure no 7 – Histogram of indicators

The **current assets' financing has been done by** its own funds in a proportion of 32.4% in 2005 and 20.27% for present year. Consequently, there is an increase in the external resources from 38.2% up to 54.0%.

The following part is going to cover the appraisal of liquidity indicators as a measure of company's ability for repayment of its current debts. **The current ratio** indicates a little difficulty in paying its debts. **The quick assets** ratio of the company for this period is consider unsatisfactory and there is a business risk (0.5 in 2005 and 0.37 in 2006). The presence of fixed assets in the total assets value has a constant level of 0.85 for both 2005 and 30 April 2006.

It can be pointed a reducing percent of the company capacity of **coverage** for resources by own capital at almost 85.23. That means the company has a low ratio of obligation and a high possibility of financial autonomy. There seems no problem for meeting its long term obligation as it is shown by the overall ratio of debts.

A satisfactory **level of debts** (for this industry type of activity) is when their dimensions do not exceed the entire shareholders

wealth. The ratio of debt to total own equity shows the reliable behaviour of management policy by the levels recorded at 0.14 in 2005 and 0.16 in next year, being inside the optimum interval.

The analysis is to continue with the **profitability ratio**. The first four months period of 2006 records a loss of  $M_U$  1,314,053 thousand, but the firm performance has to be related to the profit of the last year (because actual financial exercise has not been finished), having the followings:

- net profit margin computed as ratio between net profit and total revenue is 0.61%;
- return on equity calculated as report of net profit vs. net worth is 0.34%;
- the economic profitability obtained by dividing the global earnings by long term resources is 0.71%;
- earnings per equity is 0.36%;
- gross profit margin is 1.3%.

The fixed assets **turnover** calculated as ratio of annual sales divided by net fixed assets has a value of 0.69 in 2006 and 0.57 in 2005. Under the hypothesis of maintaining the employees number and a time-period's extrapolation of statement data up to December 31-th 2006, there can be deduced a higher productivity per employee due to a bonus rewarding policy.

The **participation** (**rotation**) **rate** (degrees of use) for balance sheet components is improved and the premises are:

- 1. the total assets turnover jumps from 0.49 to 0.59 in 2006;
- 2. the current assets turnover swings from 3.39 to 3.97;
- 3. an increase in the period of average inventory with 1 day;
- 4. the total shareholders' wealth turnover has increased up to 0.69 from 0.56 in 2005.



Figure no 8 – Turnover indicators

The previous ratios have disclosed a low profit's management policy that is an adaptation to the overall economic climate pressure. In 2005 year, there was recorded an operating profit of  $M_U 1,756,010$  thousand (operating revenue - operating expenses) backed by a financial loss of  $M_U 988,253$  thousand (financial revenue - financial expenses) and an exceptional loss of  $M_U 296,252$  thousand (non regular revenue – non regular expenses, e.g. law penalties, commercial penalties). It was preferred such a subjective structure of profit and loss account in order to pinpoint the influences of those elements being other than regular revenue and expenses. If you want, you could compute the statement according to your own standards in order to bring it at a standard structure.

# **B. FINANCIAL AND STRATEGIC PLANNING** (at least 2-3 years period)<sup>3</sup>

# The company's strategy

In order to maintain the actual production capacity, the management has been analyzing several investment financial plans for the last years. So, this approach is to deal with analysis of opportunity of the manufacturing works' replacements in several production departments.

The CEO board under the request's influence of production and marketing advisers has decided the acquisition of two **modern plants**. The step-by-step opportunity cost analysis among the different plant manufacturers' offers has generated a winner - K&HMas of G(xxxx), being the most suitable on both technical and economical features and criteria, and an agreement/buying contract has been signed. There is expected **to request an investment** of about FRG 14,606,811 (FRG = Foreign Monetary Units), being an equivalent of M\_U 6,865.00 million at an exchange rate of M U/ FRG 470.

For financing this investment, a choice has to be done on a **mixture of possible resources**.

Before any further actions, it is ought to perform a **forecasting analysis** upon the company's future financial performances. It usually starts with those **revenue and expenses not influenced** by the chosen methods of financing the accrued payments:

<sup>&</sup>lt;sup>3</sup> The essential elements were highlighted

				Table	no 3 (M_U	J million)
Name	2006	2007	2008	2009	2010	2011
Production sales <sup>4</sup>	66,933.40	70,449.90	74,163.00	78,266.10	82,165.50	86,615.50
Goods sales	43.50	97.00	194.00	388.00	776.00	1,542.00
Total sales	66,976.90	70,546.90	74,357.00	78,654.10	82,941.50	88,157.50
Stocks' cash dividend	283.00	283.00	283.00	283.00	283.00	283.00
Adjusted financial revenue	1,252.50	1,319.20	1,390.50	1,470.80	1,551.00	1,648.50
Total financial revenue	1,535.50	1,602.20	1,673.50	1,753.80	1,834.00	1,931.50
Other operating revenue	0.00	0.00	0.00	0.00	0.00	0.00
Overall revenue	68,512.40	72,149.10	76,030.50	80,407.90	84,775.00	90,089.00

# Not Influenced Revenue Forecast

It is worth to point out that the *production sales*' forecast is considered the result of an **increased production capacity** and not as an inflationary jump of prices. In 2005, the company has not obtained any goods **sales revenue**, but since 2006 this activity has brought receipts being worth at least M\_U 43,527 thousand, the management intending to develop and multiply its value twice on each following year. About the participation income (*cash dividends*), the company has been holding a **shares portfolio** of equivalent M\_U 500 million par value at several banks that makes an yearly inflow of almost M\_U 283 million. Also, it received favorable **revenues of exchange rates** (M\_U 654.77 million) **and interests** (M\_U 24.6 million) in 2005, being considered to get a future fixed amount of 1.87% of net sales (as doing now).

The **forecasted operating revenue** is characterized by:

- The capital swing is in constant prices;
- The **increasing productions** compared to the one on 2005 year are to be the result of higher number of products **offered** and **sold** to the customers.
- It is estimated a higher quantity of goods trade

<sup>&</sup>lt;sup>4</sup> Production sales are computed/estimated in the Annexes





# Not Influenced Expenses Forecast

This procedure is set on the base principle according to which the investment does not produce any important changes in the structure of expenses because:

- it generates the replacement of the old production plants
- the marginal productivity and quality are going to be noticed in the supplemental operating income.

It is recommended to be used the **forecasting method of the expenses for each M\_U one thousand (1000) operating revenue**. The expenses are divided in two categories: fixed and variable. Variable expenses are those being direct influenced by the sales amount according to an index, while the fixed expenses are in opposition with the variable ones on the index terms.

The **working hypothesis** based on market information: the expenses are going to **increase** after 2006 by an index equal to 0.95 of the sales growth:

			13	able no 4
Specification	2005	Expenses at	Fixed	Variable
	M_U mill.	M_U 1000	expenses	expenses
		income	-	
Cost of raw materials	9,682.40	251.40	0.00	251.40
Cost of needed	3,048.30	79.10	39.60	39.50
materials				
Energy and water	2,168.30	56.30	8.30	48.00
Other cost of materials	2,659.50	69.00	69.00	0.00
Total raw materials	17,588.50	455.80	116.90	338.90
Services	1,139.00	29.60	29.60	0.00
Fiscal taxes	12,620.60	327.60	0.00	327.60
Employee wages	3,405.20	88.40	35.40	53.00
Ancillary social costs	1,085.20	28.20	11.20	17.00
Total employees	4,490.40	116.60	46.60	70.00
outlays				
Other operating	0.30	0.00	0.00	0.00
amounts				

**m** 11

Depreciation	952.90	24.80	24.80	0.00
Total operating outlay	36,761.70	954.40	217.90	736.50



The proportion of these outlay in the overall amount for 2005 is:

Figure no 10 – Expenses structure

The **depreciation** is valued separately being the result of accountant method and fixed assets evolution. The amount of depreciation in 2005 was  $M_U$  952.9 million maintaining the same value for the present year - 2006, and starting with 2007 it is expected to grow with a supplementary amount of  $M_U$  569.81 million due to:

- Investment= FRG 14,606,811 \* M\_U/FRG 470 = 6,865.20 (M\_U million)

- Duration of use (tool life) = 12 (years)

- Depreciation percent = 8.3%

- Annual depreciation = 6,865.20mil \* 8.3% = 569.81 (M\_U million)

 resulting a future annual total depreciation expense of M\_U 569.81+952.9 (= 1,522.71) million. The forecast computed evolution for the operating outlay is going to be:

Name	2006	2007	2008	2009	2010
Goods expenses	33.00	73.70	147.40	294.90	589.80
Raw materials	16,794.10	17,668.30	18,551.80	19,516.50	20,433.80
Needed materials	2,650.60	2,650.60	2,650.60	2,650.60	2,650.60
	2,643.90	2,776.00	2,914.90	3,066.40	3,374.30
Energy and water	▶ <u>555.50</u>	<u>555.50</u>	<u>555.55</u>	555.50	<u>555.50</u>
	3,212.80	▶3,373.40	3,542.10	3,726.30	4,100.40
Other claims	4,618.40	4,618.40	4,618.40	4,618.40	4,618.40
Total raw					
materials	30,508.30	31,642.20	32,833.40	34,133.70	35,733.00
Services	1,981.20	1,981.20	1,981.20	1,981.20	1,981.20
Taxes and fiscal	21,927.40	23,023.70	24,174.90	25,432.00	26,627.40
obligation					
Employees	2,369.40	2,369.40	2,369.40	2,369.40	2,368.40
expenses	3,547.50	3,724.90	3,911.10	4,114.50	4,307.60
Social protection	749.70	749.70	749.70	749.70	<u>749.70</u>
expenses	1,137.80	1,194.70	1,254.40	1,319.70	1,381.20
Total employees					
outlay	7,804.40	8,038.70	8,284.60	8,553.30	8,806.90
Depreciation	952.90	1,522.71	1,522.71	1,522.71	1,522.71
Total operating					
expenses	63,174.20	66,208.51	68,796.81	71,622.91	74,671.21
Fixe	d cost				

 Table no 5 ( M U Million )

Variable cost

Using previous table, compared to 2005 year, it can be said that the forecast outlay for each  $M_U$  1000 of revenue is lower with 5.4% than a regular one and there is no other possibility of reduction because the main proportion is held by the variable claims that has a low probability of going down.

The following paragraphs are dealing with the followings:

- the raw material supplying system requires borrowings (from suppliers or banks);
- the interest paid in 2005 was M\_U 50.6 (= M\_U 1,952,528 / M\_U 38,520,479) for every M\_U 1000 operating income;
- in 2005 the loans offered to its customers had a period of repayment of 14.7 days and the liquidity was M\_U 721,300 million;
- the current loan interests are going to be no more than M\_U 18.9 for every M\_U (1000) one thousand.

Related to the previous analysis which has treated the financial situation of the chosen company, it worth to get a focus upon the appropriate behavior into a choosing process for financing resources on long terms:

- 1. BORROWING MONEY FROM BANKS
- 2. BONDS ISSUE
- 3. NEW SHARES / RIGHTS ISSUE
- 4. LEASING CONTRACTS
- 5. RETAINED PROFIT AND DEPRECIATION

<u>The calculus for each financial strategy has to be linked</u> to the investment requirement coming from the replacement of old production line with a new plant having a value of FRG 14,606,811.

# **BORROWING MONEY FROM BANK AND SUPPLIER**

The following analyzed elements are acting upon the company (the **present economic performance**):

- 1. A downtrend on financing by its internal resources;
- **2.** An increasing proportion of external capital resources participation;
- **3.** A downtrend in the assets coverage by the difference between long term resources minus fixed assets;
- **4.** An increased participation for all assets and resources to operating results;
- 5. A reducing net working assets;

+ all the other conclusions coming from the previous chapter analysis on the company management.

**As a first step**: the opportunity of obtaining the necessary funds by borrowing, is analyzed under the additional working aspects:

- The Supplier (of new equipment) requires **advance payments** of overall FRG 1,995,897 – task being fulfilled by a TXXXXX's Bank credit.

-The **interest** rate of that credit is 17% per year (it has been chosen such a high level in order to cover a situation with high country risk and to look for the effect of interest rate upon the investor decision);

- The time period till the repayment **maturity** is 12 months. - The rest of the amount up to FRG 12,610,914 is financed by a supplier **loan having** the features:

- Time of **maturity** of 5 years;

- Nine (9) accepted **repayment rates**, under the conditions:

- one rate at 12 months starting with the beginning of due date;

- the last 8 rates is paid back in 6 settlements;

- Yearly interest rate is 12%/year.

Under those conditions, the investment financing and the repayments of debt are to become:

#### a) **Banking credit**

2006: repayment = FRG 1,995,897 interest (17%) = FRG 339,302

#### b) Supplier credit

- beginning year of supply – 2006

- first rate in 2007 = 126,10,914 / 9 = FRG 1,401,213

- the due difference = 12,610,914 1,401,213 = FRG11,209,701
  - in 6 transactions of = 11,209,701 / 6 = FRG 1,868,283.50

The yearly **levels of returned money** amount are to be: - in 2007 year = FRG 1,401,213

- for the next four years, the annual rates are = FRG 2,802,425

#### Yearly due interests are to be:

-year 2007	12,610,914 * 12%=	FRG 1,513,310
-year 2008	11,209,701 * 12%=	FRG 1,345,164
-year 2009	8,407,276 * 12% =	FRG 1,000,873
-year 2010	5,604,851 * 12% =	FRG 672,582
-year 2011	2,802,426 * 12% =	FRG 336,291

The credit guarantee (or management) **commissions/fees** naid to the bank are equal to an yearly 2 p.p. level :

paid to the balls are equa	a to all yearly 2 p.p. level .	
-year 2007	12,610,914 * 2%=	FRG 252,218
-year 2008	11,209,701 * 2%=	FRG 224,194
-year 2009	8,407,276 * 2% =	FRG 168,145
-year 2010	5,604,851 * 2% =	FRG 112,097
-year 2011	2,802,426 * 2% =	FRG 56,048

Using the previous computed results, it should be seen the following repayments or out-flows:

					Tabl	e no 6
Name	<b>2006</b> FRG	<b>2007</b> FRG	<b>2008</b> FRG	<b>2009</b> FRG	<b>2010</b> FRG	<b>2011</b> FRG
Bank credit	2,003,897	-	-	-	-	-
Interest due 1	339,302	-	-	-	-	-
Supplier credit	-	1,401,213	2,802,425	2,802,425	2,802,425	2,802,425
Interest due 2	-	1,513,310	1,345,164	1,000,873	672,582	336,291
Commission	-	252,218	224,194	168,145	112,097	56,048
Total flow	2,335,199	3,166,741	4,372,783	3,971,443	3,587,104	3,194,765

It should be noticed that the previous data are built on 2006's information. Conversing the amount denominated in FRG into equivalent  $M_U$  at an exchange rate of  $M_U$  / FRG 470 will results in:

			Т	able no 7	/ ( <u>M_</u> U r	nillion )
Year	2006	2007	2008	2009	2010	2011
Interest on bank loan	159.40	-	-	-	-	-
Interest on supplier	-	711.20	632.20	470.40	3161	158.0
loan						
Commissions or fees	-	118.50	105.30	79.00	52.6	26.3
Interest on short term	1,004.70	1,058.20	1,115.40	1,179.80	1,244.1	1,322.3
loans (current credits)						
Total financial	1,164.10	1,888.00	1,853.00	1,729.20	1,612.8	1,506.6
expenses						

Because a large proportion of 2005's interests expenses come from **bank loans**, having a value of  $M_U$  1,223,264 thousand, there results a current loans expenses of  $M_U$  18.9 for each  $M_U$  1,000 operating income and an estimation of **interests' outlay on current credits** of  $M_U$  15 for each  $M_U$  1,000 revenue (estimation being used in previous table).

An important tool in the analysis and investigation process is the company's **forecast expenses** and **income budget -** detailed as following:

# Income and expenses budget

				Table	e no 8 ( <i>M</i> _	$_U Mullon)$
	2006	2007	2008	2009	2010	2011
Total income, of that:	68,512.4	72,149.1	76,030.9	80,407.9	84,407.9	90,089.0
Operating revenue	66,976.9	70,546.9	74,357.0	78,654.1	82,941.5	88,157.5
Financial receipts	1,535.5	1,602.2	1,673.5	1,753.8	1,834.0	1,931.5

 Table no 8 (M U Million)

Total	64,338,3	68,096,5	70,649,6	73,352,1	76,284.0	79,052.0
expenditure,						
of which:						
Operating	63,174.2	66,208.5	68,796.8	71,622.9	74,671.2	77,545.4
expenses						,
a)Raw materials	30,508.3	31,642.2	32,833.4	34,133.7	35,733.0	36,775.1
b)Employees	7,804.4	8,038.7	8,284.6	8,553.3	8,806.9	9,098.9
c)Depreciation	<mark>952.9</mark>	1,522.7	1,522.7	1,522.7	1,522.7	1,522.7
Financial outlays	1,164.1	1,888.0	1,853.0	1,729.2	1,612.8	1,506.6
Gross operating						
profit	4,174.1	4,052.6	5,381.3	7,055.8	8,123.9	11,037.0

assuming a legal reserve percent of 5% and a fiscal charge percent of 30% (higher than a regular current fiscal charge for the country having that M\_U currency), the followings data are going to be obtained ( - all these values are chosen according to the necessity of checking/hedge an adverse fiscal policy in order to cover any unwanted exposures):

	2006	2007	2008	2009	2010	2011
Legal reserve	208,7	202,6	269,1	352,8	406,2	551,9
Corporate tax	1,189.6	1,155.0	1,533.7	2,010.9	2,315.3	3,145.5
Net income after						
taxes	2,775.8	2,695.0	3,578.6	4,692.1	5,402.4	7,339.6
Net cash benefit	<b>3,728.7</b>	<mark>4,217.7</mark>	<mark>5,101.3</mark>	<mark>6,214.8</mark>	6,925.1	<mark>8,862.3</mark>
Cash-flow from	4,892.8	<mark>6,105.7</mark>	<mark>6,954.3</mark>	7,944.0	<mark>8,537.9</mark>	10,368.9
operating activities						

 Table no 9 (M\_U Million)

Based upon the last notices, it can be observed an increasingly positive value for the cash-flow.

The analysis is going to continue with a forecast for balance sheet and its elements:

#### Current assets

Characterized by:

• The participation of *inventory* 

**2005** 36,238,664 / 6,249,368 = 5.78

**2004** 19,914,374 / 2,901,467 = 6.86

The tendency is downward. The forecast is using an assumption of stop-low level for 2006, followed by an yearly growth with 0.5 rotations for the next four years. This assumption is necessary for our process. All used data about 2005 year are recorded into the attached annexes.

• *Receivable* (including all regularized accounts)

**2005** 36,238,664 / 4,675,513 = 7.75

**2004** 19,914,374 / 1,757,396 = 11.3

The main influence is coming from the regularized accounts because the credit rotation is 16.3 times. There is considered that

an increasing ratio with one rotation per annum for the next four years is reliable.

• Cash account

The proportion of cash into current assets was:

**2005** 6.1%

**2004** 3.2%

The ratio has followed an uptrend, although its level is still unsatisfactory because otherwise it requires a percent of 30%. It is consider that 10% can be achieved and sufficient for a normal activity. The structure for the future current assets based on previous conclusions, is set in the next table:

Ĩ				Table n	<b>10</b> ( <i>M_U</i>	Million)
	2006	2007	2008	2009	2010	2011
Sales	66,976.90	70,546.90	74,357.00	78,654.10	82,941.50	88,157.50
Inventory	<u>6.38</u>	<u>6.88</u>	<u>7.38</u>	<u>7.88</u>	<u>7.88</u>	<u>7.88</u>
	10,497.90	10,253.90	10,075.50	9,981.50	10,525.60	11,187.50
Receivable	<u>7.75</u>	<u>8.75</u>	<u>9.75</u>	10.75	<u>10.75</u>	<u>10.75</u>
	8,642.20	8,062.50	7,626.40	7,316.60	7,795.30	8,200.70
Cash	1,914	2,747.5	3,540.3	4,324.5	5,496.3	6,785.9
Current	21,054.10	21,063.90	21,242.20	21,622.60	23,817.40	26,174.10
assets						

#### **Obligations**

About their elements there should be observed the next features:

• Suppliers and creditors

*2005* 36,238,664 / 2,059,978 = 17.6

*2004* 19,914,374 /1,751,890 = 11.3

As it can be noticed, the rotation ratio is growing. Thus, the average length of credit is of 20 days. For an efficient use of financial resources it is necessary a reduced ratio and supposed an analysis starting at a normal ratio and finishing at a ratio equal to that of 2005.

#### • Other debts

**2005** 36,238,664 / 2,390,397 = 15.1

*2004* 19,914,374 / 1,149,519 = 17.3

The rotation ratio is important but it is known that a normal ratio requires a level of almost 8, according to 45 days. Related to this criteria the analyst should establish a reduction of ratio, and the overall debts are:

				Table r	no 11 ( <i>M_U</i>	U Million)
	2006	2007	2008	2009	2010	2011
Suppliers	<u>8</u>	<u>10</u>	<u>12</u>	<u>14</u>	<u>16</u>	<u>17</u>
	8,372.10	7,054.70	6,196.40	5,618.10	5,183.80	5,185.70
Other debts	<u>12</u>	<u>12</u>	<u>13</u>	<u>14</u>	<u>14</u>	<u>15</u>
	5,581.40	5,878.90	5,719.80	5,618.10	5,924.40	5,877.20
Obligations	13,953.50	12,933.60	11,916.20	11,236.20	11,108.20	11,062.90

There appears an opportunity for a link between the total obligations and the current assets, followed by a forecast evolution of company's fixed plants.





				Table n	no 12 ( <i>M_U</i>	J Million)
	2006	2007	2008	2009	2010	2011
Fixed plants						
at residual						
value						
-existing at	65,556.10	64,603.20	69,945.69	69,174.78	68,990.17	68,921.06
year						
beginning						
-acquisitions	-	6,865.20	751.8*	1,338.1*	1,453.6*	1,506.5*
-sales	-	-	-	-	-	-
Fixed plants	65,556.10	71,468.40	70,697.49	70,512.88	70,443.77	70,427.56
at year end						
Amortization	952.90	1,522.71	1,522.71	1,522.71	1,522.71	1,522.71
Net fixed	6,4603.2	69,945.69	69,174.78	68,990.17	68,921.06	68,904.85
assets						
Possible new	6,865.20	-	-	-	-	-
tangible						
assets						
Participation	500.00	500.00	500.00	500.00	500.00	500.00
Total	71,968.40	70,445.69	69,674.78	69,490.17	69,421.06	69,404.85

\*The replacement investments should be equal to depreciation

As a result of previous calculus, it can be forecast the probable history of **Balance Sheet** in case of financing by loans (commercial and banking loans):

		•		Table n	<b>13</b> ( <i>M_U</i>	J Million)
	2006	2007	2008	2009	2010	2011
Fixed assets	71,968.40	70,445.69	69,674.78	69,490.17	69,421.06	69,404.85
Inventory	10,497.90	10,253.90	10,075.50	9,981.50	10,525.60	11,187.50
Receivable	8,642.20	8,062.50	7,626.40	7,316.60	7,795.30	8,200.70
Cash	1,914.00	2,747.50	3,540.30	4,324.50	5,496.30	6,785.90

Current	21,054.10	21,063.90	21,242.20	21,622.60	23,817.40	26,174.10
assets						
Total assets	93,022.50	91,509.59	90,916.98	91,112.77	93,238.46	95,578.95
Equity	66,546.30	66,546.30	66,546.30	66,546.30	66,546.30	66,546.30
Reserve	1,409.70	1,608.00	1,869.00	2,297.60	2,692.30	3,270.00
Other funds	2,193.70	3,612.30	3,611.70	5,514.60	9,293,00	13,401.10
Net worth	70,149.70	71,766.60	72,455.60	74,358.50	78,531.60	83,217.40
Medium	5,925.20	5,266.70	3,950.00	2,633.30	1,316.60	-
term						
liabilities						
Debts	13,953.50	12,933.60	11,916.20	11,236.20	11,108.20	11,062.90
Short term	2,994.10	1,542.69	2,595.18	2,884.77	2,282.06	1,298.65
liabilities						
Liabilities	22,872.81	19,742.99	18,461.38	16,754.27	14,706.86	12,361.55
total						
Net worth+	93,022.50	91,509.59	90,916.98	91,112.77	93,238.46	95,578.95
liabilities						
total						

# Main economic activity indicators

Using the previous data, it can be computed the influence upon the fundamental indicators as following:

	<ul> <li>Sales</li> </ul>						
Year	2005	2006	2007	2008	2009	2010	2011
Value							
(M_U	36,238.7	66,976.9	70,546.9	74,357.0	78,654.1	82,941.5	88,157.5
mill.)							

The favorable trend for sales, is based both on modernizing investment and diversification of company's activity.

**Current account** = Current assets / Current liabilities 2005 2006 2007 2008 2009 2010 2011 Year 1.46 1.53 1.78 1.13 1.24 1.46 2.12 Index The indicator presents the overall capacity of meeting short-term obligations using cash, receivable and inventory. The evolution has a positive effect upon the operating cash-flow.

**Quick ratio** = Current assets-inventory / Short term liabilities 2006 2007 2008 2009 Year 2005 2010 2011 0.62 0.52 0.75 0.77 0.82 0.99 1.21 Index Related to previous information, this indicator confirms

both the lack of default risk and the favorable trend obtained by a higher level than the critic one.



Figure no 12 – Quick vs. Current ratio

#### • **Gross return on net assets** = Gross Profit \*100 / Assets

Year	2005	2006	2007	2008	2009	2010	2011
Percent	0.59	4.49	4.43	5.92	7.74	8.71	11.55

It is obvious an approach of managerial team in generating profit by an increased participation of assets to product process. It is necessary a correlation with the other return ratio.

# • **Return on shareholders' equity** = Net Profit\*100 / Net Wealth

Year 2005 2006 2007 2008 2009 2010 2011 Percent 0.34 3.96 3.76 4.94 6.31 6.88 8.82 the efficiency of investment use for It resumes shareholders' equity. The uptrend tendency suggests a better guaranty for lender or investor.

• **Gross profit ratio** = Gross Profit \*100 / Sales

Year 2005 2006 2007 2008 2009 2010 2011 Percent 1.31 6.23 5.74 7.24 8.97 9.79 12.52 The better the return the more attractive the company. This reality is the result of a lower production cost per products and an active marketing policy, all these being the effect of innovation and new plant implementation.

• **Patrimonial solvability** = Net worth\*100 / Assets

Year 2005 2006 2007 2008 2009 2010 2011 Percent 87.2 75.4 78.4 79.7 81.6 84.2 87.1 It reflects the proportion of shareholders' equity into total assets, which means a better capacity of financial autonomy along these years.

**Gearing ratio** = Liabilities\*100 / Shareholders' equity Year 2005 2006 2007 2008 2009 2010 2011 22.5 18.7 14.9 Percent 14.6 32.6 27.5 25.5 The level of financial independence as previous ratio has shown, is going to reach a favorable trend with direct implications upon the company's behavior in borrowing. It is said that there is an active policy for financing by internal sources.

**Receivable collection period** = Trade receivable\*365 / Sales 2005 2006 2007 2008 2009 2010 Year 2011 42.9 37.4 33.9 33.9 Days 47.141.7 33.9 The credit policy toward its customers is going to know favorable tendency. In this way, the necessity of short term borrowed money is lower. It is the result of a more active juridical department.

• Credit repayment period = Accounts trade payable\*365 / Sales

2005 2006 2007 2008 2009 2010 Year 2011 98.8 124.6 100.6 90.51 77.7 64.7 Days 51.1 Although it reaches high values at the beginning, starting with 2008 it arrives at low levels. This movement does a good "impression" over the creditors' behavior.

• **Labor productivity** = Sales / Employees

Year	2005	2006	2007	2008	2009	2010	2011
Ratio	22.2	41.1	43.3	45.6	48.2	50.8	54.1
(mill. M_U)							

By this indicator it is measured the value of production per employed labor force. Thus, the results show an increased participation of workers that has come from investment process.

• Interest coverage ratio = EBIT / Interest									
Year	2005	2006	2007	2008	2009	2010	2011		
Indicator	1,2	4,4	3,0	3,8	4,9	5,8	8,0		

The usual value of this indicator is around 3. There is an uptrend due to a stronger competitive production on the market due to investments.

Using the previous ratio analysis, there are concluded the followings:

- 1. The company will be capable to meet its current liabilities both with and without use of inventory. The inventory-based ratios are into the acceptance borders.
- 2. Profitability ratio is still going to be below the optimal level for the economy, but compared to 2005 year, they have known a certain improvement.
- 3. Solvability is higher than the 30 per cent minimum accepted border, so there can be a great confidence of lenders and suppliers into this kind of managerial policy.
- 4. By using external funds, we are witness to the improvement of financial autonomy that has a better influence upon the return of shareholders' equity.
- 5. The income from interest and from favorable exchange rates is going to follow the trend of operating revenue.
- 6. Debtor collection period and creditor payment period are the same for all kind of investment financing and go toward the regular level. On medium term there cannot appear important changes into the relations with suppliers, customers and lenders.
- 7. The labor productivity is growing highly and stays at wanted levels in this appraisal.

# **BONDS ISSUES**

An alternative to the banking/supplier loan is the bond issue. Thus, the management will be independent against its bank, because of the trading activity's growth process. The project analyzing the opportunity cost for this type of financing, will use several information being computed in the previous paragraph:

- Accountancy analysis for year 2005 in previous "chapters";
- Forecast of income for 2006 till 2011 from last "chapter";
- Forecast of operating expenses;
- Disclosure of current assets and obligations due to suppliers from 2006 up to 2011;
- Statement of forecast fixed assets.

The economic analysis upon the company for year 2005, together with the investment revenue, have as effect/influence a ranking into a low risk level. Thus, there is going to be used a discount risk rate of 25 percent, and the result for issued interest rate is the formula:

# Rd = (1+Rp)(1+Rr)-1

where Rp means the Market Interest Rate for FRG deposits Rr means the FRG Discount Risk Rate

and being required an yield of 12% for FRG deposits (the higher expectation, the higher yield), there are obtained:

#### Rd = 14%

Now, there should be considered the assumptions that were used as the starting base for previous commercial loan analysis:

- a. decrease in the financing by internal funds;
- b. increase of gearing;
- c. a low net working capital;
- d. a low working capital covering for assets;
- e. an increased number of participation for assets;
- f. decrease in the difference between current assets and short term liabilities ;
- g. decrease in current assets covered by net worth.
  - So, the bond issue can be described:
- Issue value is equal to the face value of FRG 14,600,000 (the final value of FRG 14,606,811 was approximated in order to reduce the difficulty level of calculus);
- Coupon of 14%;
- Borrowing period is 6 years;
- Placement is done by a department of issuer;
- Interest rate is paid yearly;
- Redeem is going to be done at the end of the sixth year and to be paid by a single settlement;
- Insurance commission is 2% of the outstanding remained payment value, payable yearly.

All these elements should be considered as reliable according to the point of view of investors. The influences upon the writer are set into the maximum deviation channel for the results. According to this idea, there will follow the effects of borrowing over the financial expenses together with their implication about balance sheet statement and economic indexes.

Yearly outflows' situation comes to be:

### **Insurance commission**

# Table no 14 7 2008 2009 2010 2011

Year	2006	2007	2008	2009	2010	2011
Value FRG	292,000	292,000	292,000	292,000	292,000	292,000
Value M_U mill.	137.24	137.24	137.24	137.24	137.24	137.24

# **Repayment of loans**

#### Table no 15

Year	2006	2007	2008	2009	2010	2011
Value FRG	0	0	0	0	0	14,600,000
Value mill. M_U	0	0	0	0	0	6862.00

#### **Interest rates**

#### Table no 16

Year	2006	2007	2008	2009	2010	2011
Value FRG	2,044,000	2,044,000	2,044,000	2,044,000	2,044,000	2,044,000
Value mill.	960.68	960.68	960.68	960.68	960.68	960.68
M_U						

- using the same value for the short-term loans' interest rate, it can be obtained:

#### Table no 17

Year	2006	2007	2008	2009	2010	2011
Short-term	1,004.70	1,058.20	1,115.40	1,179.80	1,244.10	1,322.30
interest rate						
Total financial						
expenses	2,102.62	2,156.12	2,213.32	2,277.72	2,342.02	2,420.22

Based on the previous results, there is not hard to forecast the dynamic economic activity:

# Income and expenses budget

			Table no 18 (M_U Million)					
	2006	2007	2008	2009	2010	2011		
Total revenue,	68,512.4	72,149.1	76,030.9	80,407.9	84,407.9	90,089.0		
of which:								
Operating	66,976.9	70,546.9	74,357.0	78,654.1	82,941.5	88,157.5		
income								
Financial income	1,535.5	1,602.2	1,673.5	1,753.8	1,834.0	1,931.5		
Total expenses,	65,276.8	68,364.6	71,010.1	73,900.6	77,013.2	79,965.6		
of which:								
Operating						77,545.4		
outlays	63,174.2	66,208.5	68,796.8	71,622.9	74,671.2	,		
a)Raw materials	30,508.2	31,642.2	32,832.5	34,133.7	35,370.2	36,775.1		
b)Employees'	7,804.4	8,038.7	8,284.6	8,553.3	8,808.7	9,098.9		
wages								

c)Depreciation	<mark>952.9</mark>	1,522.7	1,522.7	1,522.7	1,522.7	1,522.7
Financial outlays	2,102.6	2,156.1	2,213.3	2,277.7	2,342.0	2,420.2
Gross operating	3,235.6	3,784.5	5,020.8	6,507.3	7,394.7	10,123.4
profit						

- taking a tax percent of 30 and a legal provision of 5, it is obtained a simplified model:

1	Table no 19 (M_U Million)							
	2006	2007	2008	2009	2010	2011		
Legal reserves	161.8	189.2	251.0	325.4	369.7	506.2		
Corporate tax	922.1	1,078.6	1,430.9	1,854.6	2,107.5	2,885.2		
Net income after								
taxes	2,151.7	2,516.7	3,338.8	4,327.4	4,917.5	6,732.1		
Net cash benefit	3,104.6	4,039.4	<mark>4,8</mark> 61.5	5,850.1	6,440.2	<mark>8,2</mark> 54.8		
Cash flow from								
operating activities	5,207.2	6,195.5	7,074.9	8,127.8	8,782.2	10,675.0		

In this case, the company is going to record profit levels at the end of the years and cash-flows of comparable sizes related to other financing sources. The following parts will use the last data about fixed assets, current assets, operating obligations, in order to set up the balance sheet and the linked indicators:

# **Balance** sheet

Table	no	20	(M)	U Million)	

	2006	2007	2008	2009	2010	2011		
Net fixed	71,968.40	70,445.69	69,674.78	69,490.17	69,421.06	69,404.85		
assets								
Inventory	10,497.90	10,253.90	10,075.50	9,981.50	10,525.60	11,187.50		
Receivable	8,642.20	8,062.50	7,626.40	7,316.60	7,795.30	8,200.70		
Cash	1,914.00	2,747.50	3,540.30	4,324.50	5,496.30	6,785.90		
Current	21,054.10	21,063.90	21,242.20	21,622.60	23,817.40	26,174.10		
assets								

	2006	2007	2008	2009	2010	2011
Total assets	93,022.50	91,509.59	90,916.98	91,112.77	93,238.46	95,578.95
Equity	66,546.30	66,546.30	66,546.30	66,546.30	66,546.30	66,546.30
Reserves	1,362.83	1,548.40	1,792.11	2,192.78	2,551.06	2,951.36
Other funds	2,193.70	2,612.30	2,611.70	3,514.60	5,293.00	10,401.10
Shareholders	70,102.83	61,707.00	70,950.11	72,253.68	74,390.36	79,898.76
wealth						
Bonds	6,862.00	6,862.00	6,862.00	6,862.00	6,862.00	0
Obligations	13,953.50	12,933.60	11,916.20	11,236.20	11,108.20	11,062.90
Short term	2,104.17	1,006.99	1,188.67	760.89	877.9	4,617.29
loan						
Liabilities	22,919.67	20,802.59	20,046.87	18,859.09	18,848.1	15,680.19
Passive- total	93,022.50	91,509.59	90,916.98	91,112.77	93,238.46	95,578.95

# Main economic activity indicators

• <b>Current account</b> = Current assets / Current liabilities										
Year	2005	2006	2007	2008	2009	2010	2011			
Indicator	1.13	1.31	1.51	1.62	1.80	1.99	1.67			
The moving steps of this ratio present a possible difficulty										
in the shor	t term loan	s' repay	ment, alth	ough the	overall si	tuation is	better.			
The evolution channel which the company has for its current account is										
ranking be	tween 1.13	and 1.9	8.							

**Quick ratio** = Current assets-inventory / Short term liabilities 2005 2006 2007 2009 Year 2008 2010 2011 0.52 0.97 Indicator 0.66 0.78 0.85 1.11 0.96 There is confirmed by direct link to the previous formula a favorable situation over 7 years interval and a low risk in covering its short term liabilities.

**Gross return on net assets** = Gross Profit \*100 / Assets • Year 2005 2006 2007 2008 2009 2010 2011 Percent 0.59 3.48 4.14 7.14 5.52 7.93 10.59 The low efficiency in using the assets is increasing being higher than the interest rates paid by the banks for foreign currency deposits. This has a direct implication upon the company's capacity of financing.

• **Return on shareholders' equity** = Net Profit\*100 / Net Worth

2005 2006 2009 Year 2007 2008 2010 2011 Percent 0.34 3.07 4.08 4.71 5.99 6.61 8.43 The use of net worth for obtaining the profit, is going to know an upward trend but with a marginal increase falling. It has a good impact over the possible lenders.

• **Gross profit ratio** = Profit brut\*100 / Sales

Year Percent	<b>2005</b> 1.31	<b>2006</b> 4.83	<b>2007</b> 5.36	<b>2008</b> 6.75	<b>2009</b> 8.27	<b>2010</b> 8.92	<b>2011</b> 11.48			
	Man	agement	policy	about the	commer	cial added	value			
knows an expansion as a result of investment and productivity process.										

• **Patrimonial solvability** = Net worth\*100 / Assets

	1		, as may	1,00,010	100/11		
Year	2005	2006	2007	2008	2009	2010	2011
Percent	87.2	75.4	67.4	78.0	79.3	79.8	83.6
	The	re is visi	ble a situ	ation of a	in increas	ed leverag	ge as a
result of	financing	method. I	t has acce	eptable lev	el.		

**Gearing ratio** = Liabilities\*100 / Shareholders' equity • 2011 2005 2006 2007 2008 2009 2010 Year Percent 14.6 32.7 33.7 28.3 26.125.3 19.6 The company still has a financial independence in relation to creditors' money, which means a high possibility of borrowing. 11 T 1 + 1 + 2 = 2 = 2 = 1. .1 р

	•	<b>Receivable collection period</b> = 1rade receivable*365 / Sales									
Year		2005	2006	2007	2008	2009	2010	2011			
Days		42.9	47.1	41.7	37.4	33.9	33.9	33.9			

The values of this indicator remain the same for all types of financing. The credit policy toward customers knows positive tendency and the need of new short term loans is reduced.

•	Credit	repayment	period	=	Accounts	trade	payable*365	/
	Sales							

Year	2005	2006	2007	2008	2009	2010	2011			
Days	98.8	124.9	107.6	98.0	87.5	82.9	64.9			
There can be observed a reduction of this ratio below 100										
days, ł	out it is hig	her than a	credit fir	nancing m	ethod. Th	ere exists	an active			

management.

• **Labor productivity** = Sales / Employees

	p									
Year	2005 2	2006	2007	2008	2009	2010	2011			
Mill. M_U	22.2	41.1	43.3	45.6	48.2	50.8	54.1			
This ratio knows no influences from the financing method,										
so it is	influenced	only t	by the	behavior	of emplo	oyees an	nd their			
motivatio	ns.									

٠	<b>Interest coverage ratio</b> = EBIT /	Interest
---	---	----------

				//			
Year	2005	2006	2007	2008	2009	2010	2011
Indicator	1.2	2.5	2.7	3.2	3.7	4.0	5.0
	Just l	ike the pi	revious in	dicators,	this one is	going to	stay at

levels that offer enough coverage and its boundaries are ranking into acceptable values. So, the conclusions are:

- 1. The firm will be capable to meet its current debts by both including inventory or excluding them. It appears as a low risk of repayment.
- 2. The return ratios are still below acceptance level but compared to year 2005, they are better.
- 3. Solvability is greater than 30 percent the border of the minimum level of leverage, which means creditworthiness.
- 4. By using borrowed funds, there is an improvement into the financial autonomy with direct implications upon the efficiency of shareholders' wealth.
- 5. The return from interest and favorable exchange rates will follow the evolution of operating income.
- 6. For medium term there do not appear any possible important changes in the relations with suppliers, customers and lenders. The period of debtor collection and creditor payment tend toward regularity.
- 7. The interest coverage ratio stands at normal standards.

# **NEW SHARES/ RIGHT ISSUES**

The third possible resource chosen to finance the investment is given by the right issues. This process has known an important development activity all over the world. So, the present working paper is going to cover the favorable and undesirable effects of this methods upon the company's activity. Following this thinking way, there have being remembered the assumptions staying at the basis of judgment and being obtained on the 2005's activity analysis: a reduction of net worth ratio in overall assets, a reduction of net working capital, a low level for coverage of assets by working capital, a high number of participations for short term resources, a constant evolution of labour productivity and others.

The next discussion will also touch the forecasts about sales, operating income and expenses, debts, receivable and suppliers. The issue of share can be characterized by:

- issue value is equal to par value of an overall sum of FRG 14,600,000 what is equivalent to M\_U 6,862 million;
- there are common shares, not preferred ones, offering no guaranty about the dividend payment;
- these securities generate patrimonial and non patrimonial rights;

• the shares can be changed for money in over-the-counter market.

- unlimited period of issuing;
- placement term is 2 months since the announcement has been done;

• the previous shareholders have a pre-emptive right of subscription;

- book value per share is M\_U 25,000, linked to a number of 274,480 shares;
- there is not issuing premium;
- placement is done by a special department of issuer for a reduction in costs.

Because there is considered a non-settlement expenses optimal case (without settlement expenses), for the bonds issue, I shall directly study thoroughly the implication produced by this action upon the COMPANY. There is no influence over the financial expenses which will remain at low levels being given by short term loans' interests only.

	11100	nice with	enpense	5 onnge					
_		Table no 21 (M_U Million							
	2006	2007	2008	2009	2010	2011			
Overall income,	68,512.4	72,149.1	76,030.9	80,407.9	84,407.9	90,089.0			
of which:									
Operating	66,976.9	70,546.9	74,357.0	78,654.1	82,941.5	88,157.5			
revenue									
Financial	1,535.5	1,602.2	1,673.5	1,753.8	1,834.0	1,931.5			
revenue									
Overall expenses	64,178.9	67,266.7	69,912.2	72,802.7	75,915.3	78,867.7			
,									
of which:									
Operating						77,545.4			
outlays	63,174.2	66,208.5	68,796.8	71,622.9	74,671.2				
a)Raw materials	30,508.2	31,642.2	32,832.5	34,133.7	35,370.2	36,775.1			
b)Employees'	7,804.4	8,038.7	8,284.6	8,553.3	8,808.7	9,098.9			
wages									
c)Depreciation	<mark>952.9</mark>	1,522.7	1,522.7	1,522.7	1,522.7	1,522.7			
Financial outlays	1,004.7	1,058.2	1,115.4	1,179.8	1,244.1	1,322.3			
Gross operating	4,333.5	4,882.4	6,118.7	7,605.2	8,492.6	11,221.3			
profit									

Income and expenses budget Table no 21 (M 11 Millio

For a consideration a high taxes (non optimistic strategy) of 30% and a legal reserve of 5%, it is obtained:

						Million)
	2006	2007	2008	2009	2010	2011
Legal reserve	216.7	244.1	305.9	380.3	424.6	561.1
Corporate tax	1,235.0	1,391.5	1,743.8	2,167.5	2,420.4	3,198.1
Net income after						
taxes	2,881.8	3,246.8	<mark>4,068.9</mark>	5,057.5	5,647.6	7,462.2
Net cash benefit	3,834.7	4,769.5	<mark>5,591.6</mark>	6,580.2	7,170.3	<mark>8,984.9</mark>
Cash-flow from						
operating activities	4,839.4	5,827.7	6,707.0	7,760.0	8,414.4	10,307.2

 Table no 22 (M\_U Million)

By previous favorable obtained results, the company sends continuously funds toward reserves, and the partnership with the shareholders would be harmonious. Each financial analyst should use the already-disclosed data in order to define the forecast balance sheet and the most important economic and financial indicators:

				Table n	o 23 (M_U	Million)
	2006	2007	2008	2009	2010	2011
Fixed assets	71,968.40	70,445.69	69,674.78	69,490.17	69,421.06	69,404.85
Inventory	10,497.90	10,253.90	10,075.50	9,981.50	10,525.60	11,187.50
Receivable	8,642.20	8,062.50	7,626.40	7,316.60	7,795.30	8,200.70

# **Balance** sheet

Cash	1,914.00	2,747.50	3,540.30	4,324.50	5,496.30	6,785.90
Current	21,054.10	21,063.90	21,242.20	21,622.60	23,817.40	26,174.10
assets						
Total assets	93,022.50	91,509.59	90,916.98	91,112.77	93,238.46	95,578.95
Equity	73,408.30	73,408.30	73,408.30	73,408.30	73,408.30	73,408.30
Reserves	1,417.30	1,657.76	1,956.37	2,411.93	2,825.11	3,280.31
Other funds	2,193.70	2,612.30	2,611.70	3,514.60	5,293.00	7,401.10
Shareholders'	77,019.30	77,678.36	77,976.37	79,334.83	81,526.41	84,089.71
equity						
Obligations	13,953.50	12,933.60	11,916.20	11,236.20	11,108.20	11,062.90
Short term	2,049.70	897.64	1,024.41	541.74	603.85	426.34
loans						
Liabilities -	16,003.20	13,831.24	12,940.61	11,777.94	11,712.05	11,489.24
total						
Passive -	93,022.50	91,509.59	90,916.98	91,112.77	93,238.46	95,578.95
total						

# Main economic activity indicators

The overall situation as you can see, is acceptable related to the accountancy's point of view. The following presentation of the indicators is absolutely necessary:

•	Current	t account	= Current	t assets / C	Current lia	abilities	
Year	2005	2006	2007	2008	2009	2010	2011
Indicator	1.13	1.32	1.52	1.64	1.84	2.03	2.28
•	Quick r	atio = Cu	rrent asse	ts-invento	ory / Short	term liat	oilities
Year	2005	2006	2007	2008	2009	2010	2011
Index	0.52	0.66	0.78	0.86	0.99	1.13	1.30
•	Gross r	eturn on 1	net assets	= Gross	Profit *10	0 / Asset	s
Year	2005	2006	2007	2008	2009	2010	2011
Percent	0.59	4.66	5.34	6.73	8.35	9.11	11.74
•	Return	on shar	eholders'	equity	= Net P	Profit*100	) / Net
	Worth			1 0			
Year	2005	2006	2007	2008	2009	2010	2011
Percent	0.34	3.74	4.18	5.22	6.37	6.93	8.87
•	Gearing	g ratio = I	Liabilities	*100 / Sh	areholder	s' equity	
Year	2005	2006	2007	2008	2009	2010	2011
Percent	14.6	20.8	17.8	16.6	14.8	14.4	13.7
•	Credit	repaymei	nt period	= Accou	unts trade	payable	*365 /
	Sales						
Year	2005	2006	2007	2008	2009	2010	2011
Days	98.8	55.21	48.58	42.47	37.86	35.49	33.25
•	Interest	coverage	e <mark>ratio</mark> = H	EBIT / Int	erest		
Year	2005	2006	2007	2008	2009	2010	2011
Index	1.2	5.1	5.4	6.2	7.1	7.5	9.1
	The	ontira cor	nnany'a a	ctivity ir	case of	oquity fir	ancing

The entire company's activity, in case of equity financing, will know a positive evolution according to accountancy documents. These conclusion is backed by the forecast indicators as a low debtor repayment period, an increase in the liquidity and return ratio, a high financial autonomy toward the others creditors, and so on. Thus, by this technique, the firm has the possibility for a better covering of interests using its earning before taxes. We must to notice the trust and security for creditors that are impressed by the new and development policy of company's assets. Such analysis has to be linked to what we have observed at the previous financing methods that offer a more reduced risk of hostile take-over. Finally it is going to get compared all these results in order to define the optimum mix of financing. But there must not be forgotten that several indicators remain constant being independent of all methods: debtors collection period, return on sales, return on assets. The favorable evolution of a higher number of usages for promoting the sales by shareholders' equity and the increase of overall income have a strong influence over the results. Because of the investment process, there is a continuous reduction into the raw material cost of operating that has been forecast at a 5 percent. It cannot be stated a more optimistic figure because of economic environment. These are all under a political risk effect.

# LEASING CONTRACTS

The forth way of obtaining the financial funds is given by the lease. It is relatively new in that East European country, because the specialized domestic leasing activity has been started only since 1993, while there is still a lack of legislation in area of supervising the risk and cheating challenges. Thus, contracts for such highly value plants have a little possibility of being fulfilled.

At microeconomic level, over the company's activity the previous influences are maintained by the promotion of accountancy papers from the last chapters about revenue, operation expenses, obligations and many others that have independence from financing method. There must not be forgotten a reduction in financing by internal funds and working capital, a required higher proportion for liabilities, an increased participation of assets and others in the economic activity, and the standard rest of assumptions.

But, our situation is a little different, because of a non record of new plants in its balance sheet(lack of legislation), which has as effect a constant value for assets over next six years. The repayment is included into operating expenses, being deducted out of gross profit . Let us suppose the following parts of the contract:

- the insurance rate is 2% of the remaining value of purchase at the beginning of year, payable since 2006;
- yearly annuity is 15% of the plants' value, following that at the end of year 2011 the plant to be bought at a residual value equal to the difference between the face value less

the yearly 8.3 percent depreciation accumulated for all 6 years period (payable since 2006).

Based on these elements, there can be structured in the next

way:

- book value of plant = M\_U 6,865.2 million;
- yearly expenses = 15%;
- annuity = M\_U 1,029.78 million ;
- total other expenses =1,029.7+4,618.5 = M\_U 5,648.2 million.

=> and the insurance commission in M\_U million is:

- year 2006	6865.2*2% =	137.3
- year 2007	5835.4*2% =	116.7
- year 2008	4805.64*2% =	96.1
- year 2009	3775.86*2% =	75.5
- year 2010	2746.08*2% =	54.9
- year 2011	1716.30*2% =	34,3

Yearly depreciation of 8.3% and the final purchase option at the end of the period for a certain residual value, will mean a financial effort in 2011 of:

- accumulated depreciation = 6,865.3\*8.3%\*6= M\_U 3,418.9 million
- $\circ$  residual value for payment = M\_U 3,446.3 million

It is considered that this amount is obtained by retained accumulation of profit and of depreciation. The result is a structure of financial expenses as it is following: Table pa 24 (M, U, Million)

				I able no	$24 (M_U)$	Million)
Year	2006	2007	2008	2009	2010	2011
Commissions	137.3	116.7	96.1	75.5	54.9	34.3
Short term loans'	1,004.7	1,058.2	1,115.4	1,179.8	1,244.1	1,322.3
interest						
Total financial	1,142.0	1,174.9	1,211.5	1,255.3	1,299.0	1,356.6
expenses						

Now, I am going to use the expenses for the forecast short term loans, which can produce the income and expenses budget:

Income and expen	ises budget
------------------	-------------

		Table no 25 (M_U Million						
	2006	2007	2008	2009	2010	2011		
Total income,	68,512.4	72,149.1	76,030.9	80,407.9	84,407.9	90,089.0		
of which:								
Operating revenue	66,976.9	70,546.9	74,357.0	78,654.1	82,941.5	88,157.5		
Financing revenue	1,535.5	1,602.2	1,673.5	1,753.8	1,834.0	1,931.5		
Total expenses,	65,345.9	67,843.3	70,468.2	73,338.1	76,430.1	81,479.4		
of which:								
Operating outlays	64,203.9	66,668.4	69,256.7	72,082.8	75,131.1	80,122.8		
a)Raw materials	31,538.0	32,671.9	33,863.1	35,163.4	36,762.7	36,775.1		

b)Employees' wages	7,804.4	8,038.7	8,284.6	8,553.3	8,808.7	9,098.9
c)Depreciation	952.9	952.9	952.9	952.9	952.9	952.9
Financial outlays	1,142.0	1,174.9	1,211.5	1,255.3	1,299.0	1,356.6
Gross operating						
profit	3.166.5	4.305.8	5.562.7	7.069.8	7.977.8	8.609.6

The calculus for a 30 percents tax and a legal reserve of 5 percents will lead to:

r			,	<b>Fable no</b>	<b>26</b> ( <i>M</i> _ <i>U</i>	Million)
	2006	2007	2008	2009	2010	2011
Legal reserve	158.32	215.29	278.13	353.49	398.89	430.48
Corporate tax	902.45	1,227.15	1,585.37	2,014.89	2,273.67	2,453.74
Net income after						
taxes	2,105.72	2,863.36	3,699.20	4,701.42	5,305.24	5,725.38
Net cash benefit	3,058.62	3,816.26	4,652.10	5,654.32	6,258.14	5,725.38
Cash-flow from	4,200.62	4,991.16	5,863.60	6,909.62	7,557.14	7,081.98
operating activities						

The managerial team is expecting to end in profit all financial years and the financial administration cash flow knows positive values properly to the economic environment and comparable with other financing sources. I have to mention the lease has the effect of no recording into accountancy papers, and of increasing expenses. In order to define the analysis I have supposed that fixed assets is going to remain at levels according to the next algorithm:

### FIXED ASSETS

				Table no	• <b>27</b> ( <i>M</i> _ <i>U</i>	Million)
	2006	2007	2008	2009	2010	2011
Fixed assets at residual value						
-at the beginning of the year	65,556.1	64,603.2	64,517.9	64,816.8	65,202.0	65,702.7
-inflows	-	867.6*	751.8*	1,338.1	1,453.6	4,016.2
-outflows	-	-	-	-	-	-
-at the end of the year	65,556.1	65,470.8	65,769.7	66,154.9	66,655.6	69,718.9
Depreciation	952.9	952.9	952.9	952.9	952.9	952.9
Net fixed assets	64,603.2	64,517.9	64,816.8	65,202.0	65,702.7	68,766.0
Securities	500.0	500.0	500.0	500.0	500.0	500.0
Total	65,103.2	65,017.9	65,316.8	65,702.0	66,202.7	69,266.0

*\*the investment should be at least equal to depreciation* 

The next steps of my analysis for "ARCCRA SA Company" are set on the previous computed data, resulting the balance sheet:

# **Balance** sheet

				Table n	o 28 (M_U	Million)
	2006	2007	2008	2009	2010	2011
Net fixed assets	65,103.2	65,017.9	65,316.8	65,702.0	66,202.7	69,266.0
Inventory	10,497.9	10,253.9	10,075.5	9,981.5	10,525.6	11,187.5

Receivable	8,642.2	8,062.5	7,626.4	7,316.6	7,795.3	8,200.7
Cash	1,914.0	2,747.5	3,540.3	4,324.5	5,496.3	6,785.9
Current assets	21,054.1	21,063.9	21,242.2	21,622.6	23,817.4	26,174.1
Total assets	86,157.3	86,081.8	86,559	87,324.6	90,020.1	95,440.1
Share capital	66,546.3	66,546.3	66,546.3	66,546.3	66,546.3	66,546.3
Reserves	1,417.7	1,628.3	1,898.0	2,325.7	2,712.1	2,940.7
Other funds	2,193.7	3,612.3	3,611.7	5,514.6	8,293.0	12,401.1
Net worth	70,157.7	71,786.9	72,056.0	74,386.6	77,551.4	81,888.1
Obligation	13,953.5	12,933.6	11,916.2	11,236.2	11,108.2	11,062.9
Short term loans	2,046.1	1,361.3	2,586.8	1,701.8	1,360.5	2,489.1
Liabilities	15,999.6	14,294.9	14,503.0	12,938.0	12,468.7	13,552.0
Passive - total	86,157.3	86,081.8	86,559.0	87,324.6	90,020.1	95,440.1

# Main economic activity indicators

Previous data will be used for argumentation of indicators and for the related conclusions:

• <b>Current account</b> = Current assets / Current liabilities										
Year	2005	2006	2007	2008	2009	2010	2011			
Indicator	1.13	1.32	1.47	1.46	1.67	1.91	1.93			
	It is	defined	as measu	are for	the comp	any capa	acity of			
responding	g to requi	ires of s	short term	loans'	repaymen	nt by sel	ling its			
current ass effects abo	sets. The out future.	evolutior	n is set or	n a favor	able trend	l with op	otimistic			

**Quick ratio** = Current assets-Inventory / Short term liabilities 2006 Year 2005 2007 2008 2009 2010 2011 Indicator 0.52 0.66 0.76 0.77 0.90 1.07 1.11 Computed on the base given by the previous one, it looks for the responding capacity to the market creditors repayment requirements, but it excludes the inventory considered less liquid than the other current assets. The evolution is considered to be good.

• **Gross return on net assets** = Gross Profit \*100 / Assets

Year 2005 2006 2007 2008 2009 2010 2011 0.59 5.00 6.43 8.10 Percent 3.68 8.86 9.02 The performance dimension being recorded is going to set up a compared rank with the other companies from the same activity area, so we can say without no doubt that the economic performances go up.

• **Return on shareholders' equity** = Net Profit\*100 / Net Worth

Year	2005	2006	2007	2008	2009	2010	2011				
Percent	0.34	3.00	3.99	5.13	6.32	6.84	6.99				
The probable evolution that can be noticed although it goes											
on an up	on an uptrend, send the falling about a high volatility of ratio.										

	• Gearing	<b>Gearing ratio</b> = Liabilities*100 / Shareholders' equity										
Year	2005	2006	2007	2008	2009	2010	2011					
Percent	14.6	22.8	19.9	20.1	17.4	16.1	16.5					
	The	possibility	y to n	neet its lia	abilities	by shareh	nolders'					
equity	equity follows a Gaussian curve. It can be increased up to 30 percent											
accordi	ng to severa	l professio	nal inde	ependent st	udies.							

•	• Credit repayment period = Accounts trade payables *365 /										
	Sales										
Year	2005	2006	2007	2008	2009	2010	2011				
Days	98.8	87.2	73.9	71.1	60.0	54.8	56.1				
•	• Interest coverage ratio = EBIT / Interest										
Year	2005	2006	2007	2008	2009	2010	2011				
Indicator	1.2	3.	6 4.5	5.	4 6.	.4 6.8	7.0				
	Both	h the i	investment	and f	inancial	resources	enjoy a				
reducing	for repay	ment pe	riods, the te	endency	being th	e same for	all other				

methods. Actually, there is a better coverage of financial expenses as a

result of legal non-records. The conclusions from this algorithm enjoy an adjusted base by the compilation of balance sheet's and indicators' data. There can be said that our situation provides an acceptable future possibility of gearing, a better payback period and the same receivable. It is recommended to follow the way of increasing productivity per employee and per unit of fixed assets. Also, there must not be forgotten an upward move for a better behavior between all workers and management, for an offensive marketing and for cutting costs policy. In case of delay for required investment, it is expected to appear a drop in sales which will have the effect of very high level of expenses in the future. New generations of management team would be compelled to "purchase" back all these lost customers with the risk of default.

Finally, I have to mention that this financing method has no influence upon the structure of leverage, but a different situation appears for interest coverage ratio thanks to a low recapitalization cost. Thus the leasing is a possible helpful instrument against all undesirable situation, although a lack of legislation made it non-properly for that East European economy.

# FINANCING BY INTERNAL SOURCES (retained profit and depreciation)

In the situation when the undesirable economic conditions defined by high recapitalization costs, have imposed a 90 percent probability of unable capacity for external financing, it is necessary a forecast of internal resources for investment process (retained profit and depreciation). Thus, there exists an effect of the same previous assumptions about:

- Operating and financial revenue;
- Operating debts and obligations;
- Current and fixed assets;
- Share capital, reserves and receivable.

An important factor is the historical influences upon the company's activity:

- 1. Reducing in financing by equity;
- 2. A higher ratio of leverage;
- 3. A low working capital;
- 4. A continuous down trend in covering assets by working capital;
- 5. A higher number of participation for assets' elements;
- 6. A lower covering of current assets by net worth.

All these conclusions of previous analysis, will be the starting point for the present possible financing method. **Fixed Assets** can be briefly described as follows:

				Table n	10 <b>29</b> ( <i>M_U</i>	J Million)
	2006	2007	2008	2009	2010	2011
Fixed assets at the end of years	65,556.10	71,468.40	70,697.49	70,512.88	70,443.77	70,427.56
Depreciation	952.90	1,522.71	1,522.71	1,522.71	1,522.71	1,522.71
Net fixed assets	64,603.20	69,945.69	69,174.78	68,990.17	68,921.06	68,904.85

The arguments in favor of this method are:

- a. a low creditors influence which means low financial expenses;
- b. the analysis for the profit/loss account about real position on market;
- c. fiscal facilities by government participation to interest payments.

All these factors imply the following algorithm:

1. Computing a structure of financial expenses given by the short term loans' interest repayments.

			Table no 30 (M_U Million)					
Year	2006	2007	2008	2009	2010	2011		
Short term loans'	1,004.7	1,058.2	1,115.4	1,179.8	1,244.1	1,322.3		
interests								
Total financial	1,004.7	1,195.5	1,232.1	1,275.9	1,319.6	1,377.2		
expenses								

- 2. Supposing no exceptional outlays;
- 3. Table of *Income and expenses budget* reflects the following results:

					<u>`</u>	· · · · · ·
	2006	2007	2008	2009	2010	2011
Total income,	68,512.4	72,149.1	76,030.9	80,407.9	84,407.9	90,089.0
of which:						
Operating revenue	66,976.9	70,546.9	74,357.0	78,654.1	82,941.5	88,157.5
Financial receipts	1,535.5	1,602.2	1,673.5	1,753.8	1,834.0	1,931.5
Total expenses,						
of which:	64,178.9	67,404.0	70,028.9	72,898.8	75,990.8	81,039.9
Operating outlays	63,174.2	66,208.5	68,796.8	71,622.9	74,671.2	79,662.7
a)Raw materials	30,508.2	31,642.2	32,832.5	34,133.7	35,370.2	36,775.1
b)Employees' wages	7,804.4	8,038.7	8,284.6	8,553.3	8,808.7	9,098.9
c)Depreciation	<mark>952.9</mark>	1,522.7	1,522.7	1,522.7	1,522.7	1,522.7
Financial outlays	1,004.7	1,195.5	1,232.1	1,275.9	1,319.6	1,377.2
Gross operating						
profit	4,333.5	4,745.1	6,002.0	7,509.1	8,417.1	9,049.1

**Tabel no 31** (*M U Million*)

- and if I consider a percent for legal reserve of 5 and for taxes of 30, it is going to be obtained:

			Tabel no 32 (M_U Million)							
	2006	2007	2008	2009	2010	2011				
Legal reserves	216.7	237.3	300.1	375.5	420.9	452.5				
Corporate tax	1,235.0	1,352.4	1,710.6	2,140.1	2,398.9	2,579.0				

	2006	2007	2008	2009	2010	2011
Net income after taxes	2,881.8	3,155.5	3,991.3	4,993.5	5,597.4	6,017.7
Net cash benefit	<mark>3,834.7</mark>	4,678.2	<mark>5,514.0</mark>	<mark>6,516.2</mark>	7,120.1	7,540.4
Cash-flow from						
operating activities	4,839.4	5,873.7	6,746.1	7,792.1	8,439.7	<mark>8,917.6</mark>

4. the investment in modern fixed assets is about M\_U 6,865.2 million.

If I compare the necessity with the possibility of self-financing it can be noticed an unfavorable position of more than  $M_U$  3030.5 million, which means that the use of this single method has no "basement". The conclusion is that management should use a mix between the present resource and the other possible financing sources. Actually, I can consider that self-financing is a complementary fund which accompanies the borrowing or rights issue. So, I can say that a continuous analysis based on the forecast balance sheet is unnecessary.

It has to be mentioned that company objectives are the same: a growth of profitability and shareholders wealth, the renewing of equipment, the keeping of customers, a continuous active marketing policy, etc. Such unique financing methods can be used by those company with high money accounts good enough to sustain oneself very important investment projects. There is a strong correlation between retained profit policy and the government action for a limited access to money markets as it can be seen from statistical studies about French capital studies across the seventy and eighty years. According to the economic situation of that East European country being under structural reforms, the orientation toward only depreciation and profit as a method of obtaining the funds, appears unnecessary if there exists the borrowing possibility. That is why, the management should consider this present discussed source as a complementary one in its overall economic action for lower costs of recapitalization. It is proved by different studies that a leverage ratio should not be less than 30 percents, and I can say that our company should grow in the long term liabilities instead of a internal funds financing. All these conclusions and many others will be related in the end of my presentation in order to define an acceptable method of obtaining the required cash-flow.

# GROUNDING THE FINANCING RESOURCE THOUGHTS AND REFERENCES

One conclusion to be made according to previous observations and domestic market performances is: It can be said that for that East European company it is allowed a higher leverage under the conditions generated by the economic reality, and this increase should be done by more borrowings rather than securities issues. One of the arguments sustaining the orientation of that East European company toward banking system, consists of a not enough secondary developed financial market for sustainable high value placements. Thus at first sight it is proved the logical process about the more valuable option of borrowing from banks rather than that of rights and bonds issues. This technique of obtaining the required funds is also strengthened by a lack of legislation for derivatives instruments and markets.

Other important factor to be mentioned is a low savings ratio for that East-European country that has a very small bonds market, unable to attract a long term investments funds from population, with unfavorable implication upon the economic activity. Here I must mention an excess of banknotes producing a negative saving behavior.

Because of a low bankruptcy and reorganization cost, the concern of the firm's creditors is going down and there appear a strong willingness to finance the firm by loans. In case of new security issues, they can be interpreted by the market to indicate bad news and a drop in the price of their stock at the announcement date of issuing is expected to come, what is undesirable for management.

For a better understanding of company capital structure, I suggest you to look through the proper literature.

- I can say that a good reference point to me it was the studies of Raghuram G. Rajan / Luigi Zingales (e.g. "What we know about capital structure. Some Evidence from International Data" - The Journal of Finance, December 1995) – where the investigation upon the financing policy proved an interesting variance for the leverage and other financing structure indicators along the former G-7's countries:
  - Participation of receivables in assets ranked from 13% to 29%;
  - Participation of inventories in assets covered un interval from 11% to almost 24%;
  - Cash in assets- stood in the boundaries from around 8% to 18%.
  - Shareholders equities presented a participation in total patrimony from 28% to almost 42%.
  - External financing resources in total founds recorded according to OECD statistics, a variance of 33 p.p. (in 1991) from the lowest external resources financing level (USA 23%) to the highest one (Japan 56%).

#### Attention:

The reason for which an increase in the leverage can be identified, although the external financing being low, is given by the high proportion of debts or creditors.

Here, I have to mention that the agency cost of debts can be reduced by the establishment of a close relationship between managers and creditors. When a company prefers bank financing rather than public issues of bonds to thousands of investors, negotiations with a few officials from the bank replace the disclosure of public information and a costly system for protection of anonymous creditors. There may also be some cost considerations behind the choice of a financing instrument. It is fairly costly to issue bonds and to sell them directly to private investors. Direct financing of this kind may only be a realistic option for large, well known public companies. Small companies will have to borrow from financial intermediaries, which can diversify the risk and transform the claims into forms desired by the individual investors.

Let us take a look at debt financing. Generally speaking, a trade-off has to be made between two objectives: minimizing the expected after-tax cost of financing and keeping risks to acceptable levels. All these arguments have the effect of orientation toward bank and supplier credit. Debts used to play a decisive role in most take-over initiatives (Jensen 1988). Higher debt levels can result in a lower profitability for the acquirer and, therefore, in a lower probability of acquisition (Israel 1991). It is known that hostile bids are done by both foreign and domestic investors. Actually, an increase in the leverage results into a downward move for undesirable market actions and an upward slope for return in case of low recapitalization costs. The present case study has shown that the take-over would have the lowest profitability and probability of happening in the case of bonds issue and banking credit financing.

For a strengthening of conclusions regarding the necessity (opportunity) of bank and commercial borrowings, I will come with some additional reading recommendations as following:

The leverage grows in the same time with asymmetric information	Model: Asymmetric	Myers&Majluf(1984)
Leverage increases with	Model:	Ross(1977),
increases in profitability	Asymetric	Blazenko(1987), Ravid&Sarig(1989)
Leverage goes up as a anti-	Model: Control	Israel, Stulz(1990),
take-over measure	Agency	Harris&Raviv(1988)
Leverage is positively	Model: Agency	Harris&Raviv(1990),
correlated with default		Ross(1977)
probability		
Leverage is positively	Model: Agency	Harris&Raviv(1990),
correlated with the firm	Control	Stulz(1990), Israel
value		
The extend of external		Masulis(1988),
financing has increased		Tggart(1985)
over time		

#### **Relationship debts - diverse factors**

I have considered as leverage required boundary a minimum acceptable debt level of 30 percent which would have as a collateral effect a potential bank loan up to this higher level. At the same time, the company's management could use funds from net profit and depreciation but only complementary. The other financing instruments, although allowing a better economic performance, have the disadvantages of either a higher take-over risk, or an out of reality transformation. Here I must notice the actual level of domestic country's risk (A4 since December 2005) with direct influences upon the bonds and lease costs. The decision of making a choice in favor of the 30 percent minimum leverage is based on my own subjective experiences and independent professional studies (Borio 1980, Rutherford 1982) which have identified a dynamics in ratio of liabilities in total assets, as following:

- Rutherford from 0.3 for USA to 0.8 for Japan (where Germany reached 0.6; UK 0.5)
- Borio from 0.4 for USA to 0.8 for Japan (where Germany reached 0.6; UK 0.5)

At the same time, for the case study being previously developed, the ratio of interest coverage ranks within acceptable borders, so as the management is indifferent about financing resources from this point of view.

About rights issue I have to pinpoint the potential existence of a dangerous financial reality which would come from the low stock prices and a lack of capital market liquidity because of the fight with lastyears inflation (?11). Thus, such a way is not a proper instrument for the resources management policy. It is a proven reality that the inflation is negatively related with the real stock return. So, there is a high perceived risk on capital investments. Thus, the inflation reduces demand for shares by confusing investors and a right issue is not recommended. The rights issue choice has to be kept for other better macroeconomic situations.

The conclusion that rises is: the economic company's situation and the overall domestic economy imply the financing of almost FRG 14.6 million investment, to be done by a bank – supplier credit mix being doubled by retained profits.

# Applying a circle-view geometrical model

#### Beware:

# The graphic model's task is to identify if the previous conclusion means the most adequate financing way among the available resources.

Following the last chapter analysis, it is ought to continue with an activity's performance assessing by comparing the aggregate performance of a set of indicators for each financing chosen method. Thus I propose a geometrical exercise being built on the principle of surface maximization.

- There is allocated an axe to each chosen indicator (e.g. if there are going to be used an equation of 5 indicators, then the axes will be in number of 5, and the graphics would be a pentagram).
- The optimum level of performance for a certain financing method is consider to be achieved when the surface (obtained by connecting the indicators' value)

is maximum (condition fulfilled when the geometrical shape is a regular one) regarding to the other threefinancing-methods' geometrical shapes.

Extracting a number of 10 indicators, and giving equal percentage of importance for each one, there are obtained the following axes:

# X1 - Gross Profit / Asset X2 – Liabilities / Net worth X3 – Sales / Assets X4 – EBIT / Interests X5 – Self Financing / Liabilities X6 - Quick ratio X7 - Current ratio X8 – Net Profit / Net wealth X9 - Gross Profit / Sales X10 - Net worth /Assets

- individual axes allocated to individual indicators were due to the fact that those indicators knew different unit of measure.

As every financial exercise is going to be analyzed individually, there are to be a number of six graphics. Additionally those six graphics contain each of them a number of four surfaces generated by the four financing methods (previously analyzed).

The chosen-indicators dynamics during a seven years time period (2005 - 2011) is revealed in the following tables and graphics:

	Gross Profit/	Liabilities/	Sales/	EBIT/	Self	Quick	Current ratio	Net Profit/	Gross Profit/	Net
	Assets	Net worth	ASSELS	merest	Liabilities	1410	1410	Net	Sales	Assets
								wealth		
2005	0,59	14,6	0,49	1,2	0,14	0,52	1,13	0,34	1,31	87,2
2006	4,49	32,61	0,72	4,41	0,16	0,62	1,24	3,96	6,23	75,41
2007	4,43	27,51	0,77	3,04	0,21	0,75	1,46	3,76	5,74	78,43
2008	5,92	25,48	0,82	3,76	0,28	0,77	1,46	4,94	7,24	79,69
2009	7,74	22,53	0,86	4,88	0,37	0,82	1,53	6,31	8,97	81,61
2010	8,71	18,73	0,89	5,79	0,47	0,99	1,78	6,88	9,79	84,23
2011	11,55	14,85	0,92	7,96	0,72	1,21	2,12	8,82	12,52	87,07

# - financing by bank and supplier loans

#### - financing by bond issue

	Gross	Liabilities/	Sales/	EBIT/	Self	Quick	Current	Net	Gross	Net
	Profit/	Net worth	Assets	Interest	Financing/	ratio	ratio	Profit/	Profit/	worth/
	Assets				Liabilities			Net	Sales	Assets
								wealth		
2005	0,59	14,60	0,49	1,20	0,14	0,52	1,13	0,34	1,31	87,20
2006	3,48	32,69	0,72	2,46	0,14	0,66	1,31	3,07	4,83	75,36
2007	4,14	33,71	0,77	2,67	0,19	0,78	1,51	4,08	5,36	67,43

2008	5,52	28,25	0,82	3,16	0,24	0,85	1,62	4,71	6,75	78,04
2009	7,14	26,10	0,86	3,71	0,31	0,97	1,80	5,99	8,27	79,30
2010	7,93	25,34	0,89	4,00	0,34	1,11	1,99	6,61	8,92	79,79
2011	10,59	19,63	0,92	4,97	0,53	0,96	1,67	8,43	11,48	83,59

# - financing by new shares/rights issue

	Gross	Liabilities/	Sales/	EBIT/	Self	Quick	Current	Net	Gross	Net
	Profit/	Net worth	Assets	Interest	Financing/	ratio	ratio	Profit/	Profit/	worth/
	Assets				Liabilities			Net	Sales	Assets
								wealth		
2005	0,59	14,60	0,49	1,20	0,14	0,52	1,13	0,34	1,31	87,20
2006	4,66	20,78	0,72	5,10	0,24	0,66	1,32	3,74	6,47	82,80
2007	5,34	17,81	0,77	5,38	0,34	0,78	1,52	4,18	6,92	84,89
2008	6,73	16,60	0,82	6,21	0,43	0,86	1,64	5,22	8,23	85,77
2009	8,35	14,85	0,86	7,12	0,56	0,99	1,84	6,37	9,67	87,07
2010	9,11	14,37	0,89	7,49	0,61	1,13	2,03	6,93	10,24	87,44
2011	11,74	13,66	0,92	9,06	0,78	1,30	2,28	8,87	12,73	87,98

# - financing by leasing

	Gross Profit/ Assets	Liabilities/ Net worth	Sales/ Assets	EBIT/ Interest	Self Financing/ Liabilities	Quick ratio	Current ratio	Net Profit/ Net	Gross Profit/ Sales	Net worth/ Assets
r								wealth		
2005	0,59	14,60	0,49	1,20	0,14	0,52	1,13	0,34	1,31	87,20
2006	3,68	22,81	0,78	3,63	0,19	0,66	1,32	3,00	4,73	81,43
2007	5,00	19,91	0,82	4,48	0,27	0,76	1,47	3,99	6,10	83,39
2008	6,43	20,13	0,86	5,36	0,32	0,77	1,46	5,13	7,48	83,24
2009	8,10	17,39	0,90	6,35	0,44	0,90	1,67	6,32	8,99	85,18
2010	8,86	16,08	0,92	6,83	0,50	1,07	1,91	6,84	9,62	86,15
2011	9,02	16,55	0,92	7,03	0,42	1,11	1,93	6,99	9,77	85,80



Figure no 13 - Starting year of circle-view analysis



Figure no 14 - Second year of circle-view analysis







Right issues — leasing

Figure no 16 – Fourth year of circle-view analysis



Figure no 17 – Fifth year of circle-view analysis



Figure no 18 – Sixth year of circle-view analysis



Figure no 19 – Seventh year of circle-view analysis

### Final observations coming by a visual graphics analysis:

- Stage 1: There was recorded a reality under continuous change for the four analyzed financing resources.
- Stage 2: A brief look among the geometrical images identified a more favorable situation in case of leasing, bank/supplier loans, and share/rights issue rather than bonds issues.
- Stage 3: All four financing methods were carrying both advantages and also disadvantages, but the lease had as the main disadvantages the legislation lack and a low development of specialized financial institutions acting in this field of activity.
- Stage 4: A major decision factor in choosing the financing resource would be given by the take-over risk, both on vertical and horizontal acquisition. That means the management should closely look at the market tendency and its leverage.
  - The market reality implied many hostile bidder which had the effect of firing old executive staff (a measure leading to goodwill loses in some cases) - a concern in this direction is a natural human behavior.
  - The yearly graphics are characterized by a low leverage for rights issue and leasing (*meaning that the company could be a take over target in these two situations*).

► All previous observations should lead the financing management decisions toward the bank and supplier loans.

Stage 1	Bank/Supplier	New Share/ Rights	Leasing	Bonds issues
	loans	issue	contracts	
Stage 2	Bank/Supplier	New Share/rights	Leasing	
-	loans	issue	contracts	
Stage 3	Bank/Supplier	New Share/rights		
-	loans	issue		
Stage 4	Bank/Supplier			
	loans			

# Annexes

Products	Monetary unit	Performance	Strategy
Troutets	wionecury unit	2005	2006
P One ABCD	Hectolitres	3,665	17,000
	M_U million	916,250	5,950,000
P Two	Hectolitres	3,590	2,600
	M_U million	444,922	462,800
P Three	Hectolitres	4,340	4,800
	M_U million	656,312	729,600
P Four EFGH	Hectolitres	119,690	135,000
	M_U million	17,939,137	29,362,500
P Five	Hectolitres	173,591	275,000
	M_U million	8,106,874	20625000
P Six	Hectolitres	78,545	82000
	M_U million	2,370,260	3,280,000
P Seven	tones	2,998,800	3780000
	M_U million	2,998,800	3,780,000
P Eight	tones	115	200
	M_U million	103,500	180,000
P Nine	tones	800	770
	M_U million	300,000	423,500
P Ten	tones	1,560	2,200
	M_U million	748,800	1,540,000
P Eleven	tones	808	1,000
	U_M mill.	343,400	600,000
Service revenue	M_U Thousand	1,310,409	-
TOTAL		36,238,664	66,933,400

# **Production facilities**

The statistical data should be available from official public departments - there is a forecast of an e yearly average increase for the products demand of 1.8% for the next years. Domestic industry is going to face with an expansion of foreign companies. The market of the company is represented mainly by the buyers located nearby the production facilities (an overall population of 3 millions people). The current domestic gross demand for the company's main two products is around:

- ABCD: 86 litters / consumer \* 3000000 \* 0.8 :100 equal around 2,000,000 hl

- EFGH: 7.5 litters / consumer \* 3000000 x 0.8 :100 equal around 180.000 hl.

		2006	2007	2008	2009	2010	2011	<b>Production potential</b>
P One	Hectolitres	17,000	17,000	17,000	17,000	17,000	17,000	20,000
ABCD	M_U mill.	5,950	5,950	5,950	5,950	5,950	5,950	
P Two	Hectolitre	2,600	2,800	3,000	3,200	3,500	4,000	5,000
	M_U mill.	462.8	498.4	534	569.4	623	712	
P Three	Hectolitres	4,800	5,000	5,500	6,000	6,500	7,000	9,600
	M_U mill.	729.6	760	836	912	988	1,064	
P Four	Hectolitres	135,000	135,000	135,000	135,000	135,000	135,000	155,000
EFGH	M_U mill.	29,362.5	29,362.5	29,362.5	29,362.5	29,362.5	29,362.5	
P Five	Hectolitres	275,000	300,000	325,000	350,000	375,000	400,000	440,000
	M_U mill.	20,625	22,500	24,375	26,250	28,125	30,000	
P Six	Hectolitres	82,000	83,000	84,000	85,000	87,000	90,000	100,000
	U_M mill.	3,280	3,320	3,360	3,400	3,480	3,600	
P Seven	Tones	5,400	6,400	7,600	8,500	9,000	9,500	11,250
	M_U mill.	3,780	4,480	5,350	5,950	6,300	6,650	
P Eight	Tones	200	210	220	230	230	230	270
	M_U mill.	180	189	198	207	207	207	
P Nine	Tones	770	800	850	900	1,000	1,000	1,500
	M_U mill.	423.5	440	467.5	495	550	550	
P Ten	Tones	2,200	2,500	2,800	3,100	3,400	3,800	4,500
	M_U mill.	1,540	1,750	1,960	2,170	2,380	2,520	
P Eleven	Tones	1,000	2,000	3,000	5,000	7,000	10,000	21,000
	M_U mill.	600	1,200	1,800	3,000	4,200	6,000	
Production	M_U mill.	66,933.4	70,449.9	74,163.0	78,266.1	82,165.5	86,615.5	
Sales								

	Years		
	2005	2006	
		4 months	
TOTAL ASSETS	100.00	100.00	
Fix assets (% total assets)	85.51	85.17	
Current assets (% total assets)	14.49	14.83	
Inventory (% current assets)	53.66	53.99	
- materials	26.53	23.50	
- products	14.75	15.59	
- finishing products	8.28	12.03	
- packages	4.10	2.95	
Receivables (% current assets)	40.15	42.07	
Cash (% current assets)	6.19	3.94	
Shareholders' wealth (% total assets)	82.80	82.64	
Reserves (% total assets)	4.45	2.59	
Long term debts (% total assets)	2.95	2.95	
Short term debts (% total assets)	9.80	11.83	
- loans	4.26	3.80	
- suppliers	2.39	2.09	
- creditors	0.18	0.13	
- other debts	2.97	5.81	

# Percentage structure of assets and liabilities

**Economic indicators** 

Indicator	Unit	Value	
		2005	2006 (4 months)
Gross revenue	M_U thousand	39,508,217.00	15,822,384.00
Gross expenses	M_U thousand	39,036,712.00	17,136,437.00
EBIT	M_U thousand	2,424,033.00	-505,170.00
Net profit	M_U thousand	240,139.00	1
Expenses on 1000 M_U revenue	M_U/1000	988.00	1,083.00
Employees	number	1,629.00	1,600.00
Labour productivity	M_U thousand	24,253.00	29,667.00
	/worker		
Net fixed assets	thousand M_U	66,056,071.00	65,707,728.00
Efficiency of net fixed assets	M_U thousand	0.60	0.72
	income/ M_U		
	1000		

8		M_U thousand
	2005	2006(4month)
Shareholders equity + long term liabilities (a)	75,920,749.00	74,067,539.00
Adjusted fixed assets (b)	68,724,879.00	68,582,131.00
Working capital (a-b)	7,195,870.00	5,485,408.00
Inventory (1)	6,249,368.00	6,448,060.00
Receivable (2)	4,675,513.00	5,024,407.00
Current debts (3)	4,450,305.00	6,457,642.00
Net working capital (1+2-3)	6,474,576.00	5,014,825.00
Net treasury (a-b+1+2-3)	721,294.00	470,583.00
Increase of working capital	-	-1,710,462.00
Coverage for current assets by working capital	61.20	45.93
Rotations' number of working capital	5.50	8.65

# Net working capital

# **Financial indicators**

Indicators	Formula	2005	2006
Current ratio	CA=Current assets/Current liabilities	1.50	1.25
Quick ratio	QR=Current assets - inventory/Current	0.50	0.37
	liabilities		
Current assets ratio	LA=Current assets/Total assets	0.15	0.15
Fixed assets ratio	IA=Fixed assets/Total assets	0,85	0.85
Overall solvability	Sg=Total assets/Liabilities	7.85	6.77
Own financing ratio	Sp=Net worth*100/Liabilities	87.25	85.23
Debt ratio	Rgi=Liabilities*100/Total assets	12.75	14.77
Current debt ratio	<b>Rin=Short term liabilities/Current assets</b>	0.68	0.80
Gross debt-equity ratio	Bl=Overal Liabilities/Self financing	0.14	0.16
Net profit margin	<b>Rv=Net Profit *100/Total income</b>	0.61	-
Return on total equity	Rf=Net Profit *100/Net worth	0.34	-
Gross profit to long	<b>Re=Gross Profit *100/Permanent financing</b>	0.71	-
term resources ratio	sources		
Return to share equity	Rcs=Net Profit *100/Equity	0.36	-
Fixed assets turnover	Wc=Sales/Net fixed assets	0.53	0.53
Gross profit margin	Mp= Gross Profit *100/Sales	1.30	-
Total assets turnover	Ra=Total revenue/Assets	0.49	0.59
Fixed assets turnover	Rai=Income/Fixed assets	0.57	0.69
Current assets turnover	<b>Rac=Total income/Current assets</b>	3.39	3.97
Inventory turnover	Rs=Income/Inventory	5.80	5.70
Average period of	Sz=Inventory/Daily revenue	63.00	64.00
inventory			
Shareholders equity	Rcp=Total income/Net worth	0.56	0.69
turnover			

		M_U thousand
Specification	2005	2006 (4month)
Total revenue,	39,508,217.00	15,822,384.00
of which:		
Operating revenue,	38,520,479.00	16,743,943.00
of which:		
➤ Sales	36,238,664.00	12,234,346.00
Financial revenue	964,275.00	-4,987.00
Exceptional revenue	23,463.00	95.00
Total expenses,	39,036,712.00	17,136,437.00
of which:		
Overall operating expenses,	36,764,469.00	16,289,770.00
of which:		
Depreciation	952,946.00	564,205.00
Forecast expenses	1,907,810.00	1,961,145.00
Financial expenses	1,952,528.00	808,883.00
Other operating expenses	319,715.00	37,784.00
Earning before taxes	471,505.00	-1,314,053.00

# **Structured Income Statement**

# **Bibliography**

Altman E. I.(1968), Financial Ratios, Discriminant Analysis and the Predictions of Corporate Bankruptcy, *Journal of Finance*, vol. 23, no 4.

Altman E. I., Marco G., Varetto F.(1994), Corporate distress diagnosis: Comparisons using linear discriminant analysis and neural networks (The Italian Experience), *Journal of Banking and Finance*, vol.18.

Armstrong M.(1999), A handbook of management techniques, *Kogan Page Ltd Publisher, UK*.

Andreica M.(2001), Financing strategies of SME activity, *Cibernetica MC Publisher, Romania.* 

Aspinwall R.(1992), Handbook for banking strategy, Willey Publisher.

Bagehot W.(1999), Lombard Street: A description of money market, *Wiley Publisher*.

Boda Francisc V.(1999), Evaluation of business, ECAS TRADE SRL Publisher, Romania.

McLaney E.J.(1991), Business finance for decision makers, *Pearson Higher Education Publisher*.

Ohlson J.(1980), Financial Ratios and the Probabilistic Prediction of Bankruptcy, *Journal of Accounting Research*, vol. 18.

Staicu F.(1994), Economic efficiency of investments, *Centrul Editorial Poligrafic ASE Publisher*, *Romania*.

Wang, P., Palivos, T.(1991), Money, output and income velocity, *Applied Economics, Taylor and Francis Journals*, vol. 27.