

## THE STRUCTURE OF EQUITIES IN TRADING COMPANIES

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roxana.glavan37@yahoo.com**Abstract**

*The financial structure reflects the method of financing be it from the company's own or borrowed resources. Adopting a certain financial structure represents an important aspect of the financing policy of any company that aims at maximizing its market value, in a competitive economy. An important role, in this sense, is attributed to the analysis and fair assessment of options available to a company in order to secure the resources needed for an optimal conduct of business. The financial structure decision depends on the company, on its objectives for economic growth, on profitability and the risks it is willing to take, as well as shareholders, banks, the state and the economic conjuncture. Thus the need for complex research and evaluations in regards to financing possibilities arises, with the aim of identifying an optimal structure of equities.*

*The goal of our undertaking is to explain the way in which the structure of equities is influenced by diverse adopted financing policies, but also by the object of activity of the company.*

**Key words:** *financing decision, financial structure, level of indebtedness, leverage, structural optimization*

**JEL Classification:** G00, G32

**I. INTRODUCTION**

Over time, the financing decision, represented through the choice in financing sources and the establishment of an optimal financial structure, has been one of the main concerns for financial theory and practice. According to the base objective of the financial function of an economic entity, the main concern of managers is the continual growth of the value of an enterprise, so that a maximization of it in relation to the structure of its assets is achieved. The decision for the structure of capital implies choosing a mix between debts and equities which are intended to optimize the value of the company in a given contextual or institutional framework.

Setting up a company, maintaining it on the market and sustaining its economic growth requires resources that allow optimal conduct of the company's operation. In this regard, the awareness, analysis and selection of the financing resources is required in order to determine the financial structure that implies the lowest cost.

In economic theory, an idea is increasingly accredited, according to which determining the financial structure of the company implies researching two essential variables, namely: the risk and profitability levels.

The need for a scientific study of the specified problem constitutes the main premise in choosing the topic under investigation and the base directions of the current paper.

The goal of the research lies in the overall problems related to determining an optimal equity structure. Studies related to equity structure try to present explanations in regards to the way in which companies build their debt-equity combinations for the purpose of real investment.

The motivation for this field of activity resides in the importance this field presents for the national economy but also for the profitability it registers, even in a period of recession. Antibiotics S.A. represents an important player on the Romanian market, being one of the most profitable companies in the analyzed period. Also, the listing on the Bucharest Stock Exchange provided extra motivation in choosing it, due to the ease of accessing the dataset necessary for the analysis.

The current paper presents a theoretical importance and applicative value, which extend and develop scientific argumentation and the methodological basis in analyzing and evaluating the financial structure.

Results achieved as a result of the research will contribute to the quality and efficiency of managerial decisions of economic agents under market relations development conditions and as such will improve stability in a competitive environment.

**II. THEORETICAL CONSIDERATIONS**

At a company level, the financial structure reflects the composition of equities, the reason for which it is known in literature as equity structure.

According to Berk and DeMarzo (2011, p.512), in general, companies choose to finance themselves through own equities or to combine their equities with borrowed ones.

Selecting the means of external financing and weighting them in regards to internal financing represents a main aspect of the company's financing policy.

The decision of financial structure will have to be optimal, which means establishing such a ratio between credit financing and those from its own resources, such that the financing costs are as low as possible. According to V. Duran (2000, p.82), the financing decisions depend on the economic growth objectives of the company, by the expected profitability and the risks the company is willing to accept, but also the economic environment of its activity.

In literature, the main factors that influence financing possibilities of a company are grouped in two large categories: internal factors and external factors.

External factors refer to market conditions, the competitive structure and taxes.

In regards to market conditions, financial as well as monetary markets undergo changes over medium and long terms and may exert an important influence over the optimal equity structure of the company. The competitive structure of the branch refers to the capacity of a company to honor its obligations that also depend on profitability, not only on the volume of sales. Borrowed capital presents the advantage that interest is a deductible expense for fiscal purposes, which determines a diminished effective cost of borrowed capital.

Internal factors are the stability of sales, internal conditions of the company, structure of assets, rate of growth and profitability.

Frank Murray and Vidhan Goyal claimed in 2003 that the financing policy assumes balancing risk and the profitability rate. Using resources borrowed to a larger extent determines an increase in the risk to company earnings, but a larger rate of indebtedness also means profitability estimated at a superior value.

Despite a multitude of research on this subject, equity structure remains one of the most disputed issues in economic literature.

The benchmark, according to which an expression of the financial structure of the company is realized, is the level of indebtedness. Marilen Pirtea, Horia Cristea, Cristina Nicolescu and Claudiu Botoc (2010, p.135) make a distinction between the operational indebtedness level (expresses the proportion of fixed costs of the company in regards to the total cost) and the financial indebtedness level (which refers to the average of debts in equity total – the degree of financial indebtedness of the capital, either the proportion in which gross profit is burdened by the necessity to pay interest – the profit financial indebtedness level).

The level of indebtedness of a company depends on the correlation between economic profitability and the interest rate. This is influenced by a large group of factors that act either to diminish or increase it. Maybe the most important factors that direct the financing policy of a company towards a low indebtedness rate are the risk of bankruptcy and managerial costs. On the other hand, using borrowed capital at an increased rate is mainly motivated by the reduced costs of borrowed equities (Jonathan Berk, Peter DeMarzo, 2011), but also by the savings resulted from the deductibility of expenses (Solnik, 2001). Following numerous studies, Titman (2007) concludes that companies that previously registered increased levels of profit, have a tendency towards a decreased indebtedness rate.

Risk and profitability are two essential elements that lie at the basis for the rationale in financing. Nicoleta Moldovan (2004, p.215) considers that between the two elements a direct proportionality relation exists, in other words, the more profitability grows, the bigger the increase in risk. In order to evaluate this relationship between risk and profitability, Jonathan Berk and Peter DeMarzo (2011, p.515) consider that the sensibility of profitability to systematic economy risk must be calculated. This risk, assumed by shareholders is not the global risk, only the financial risk.

The risk of the business, as an influence factor in choosing equity structure is defined by Nicolae Hoanta (2003, p.341) as inherent change in predictable future revenue related to utilized assets, if the company doesn't resort to loans for financing.

In general, small companies and single product companies have a relatively increased risk of business.

The main determining factors of business risk are, according to Nicolae Hoanta, the variability of demand, the variability in costs of goods and services, the variability of entrance costs, the capability of adjusting sales cost to the changes in buyer behavior as well as financial leverage.

Financial risk, as defined by Paul Halpern, Fred Weston and Eugene Birgham in 1998, is the extra risk incurred by shareholders, as a result of the company's decision of using borrowed equities.

One of the most important concerns of the financial manager is determining the optimal structure of equities, but also maintaining it. Pablo Fernandez (2001, p.2) defines the optimal structure of equities as that which minimizes the weighted average cost of equities and as a consequence, maximizes the company value. Optimizing the dosage between own equities and borrowed ones is a crucial problem, which, sadly, has neither definitive answer nor a miracle solution (Jean-Guy Degos, Stephane Griffiths, 2011). Sheridan Titman and Sergey Tsyplakov (2007, p. 406) consider that in the situation where companies do not actively administer their equity structure, in order to compensate for fluctuations of their stock value, the modification in profitability will distance the company from its goals.

### III. RESEARCH METHODOLOGY

We extend the literature side of things with a study over equity structure, realized on the data from Antibiotics S.A.

In order to determine the structure of equities, we used 3 indicators of different informative values, respectively: the rate of financial stability, the rate of financial autonomy and also the indebtedness degree.

### IV. CASE STUDY AND RESULTS

The interval over which these indicators are analyzed is composed of five years, beginning in 2014 and was chosen to follow the overall evolution of the company.

Antibiotics S.A. represents the most important Romanian producer of generic drugs that sports a tradition dating back to 1955. The legal identifying characteristics of Antibiotics S.A. are:

- Legal address: Valea Lupului str., nr.1, Iasi;
- Registration number for the Registry Office: J22/285/1991;
- Fiscal code: 1973096

Antibiotics S.A. works as a joint-stock company whose major shareholder is the Romanian state, through the Ministry of Health and its main objective lies in the production and distribution of drugs through biosynthesis and partial synthesis, import-export of its own food, industrial and pharmaceuticals products.

The trading company Antibiotics S.A., specialized in anti-infective drug manufacturing has known a strong development in the last few years, continuously increasing in the analyzed period its financing sources, its own as well as borrowed ones.

1. *The Analysis of financial stability* reflects the link between the permanent equities at the disposal of the company and the total assets and is calculated with the following formula:

$$R_{sf} = \frac{\text{Permanent capital}}{\text{Passive total}} \times 100 \quad (1.1)$$

The data necessary in order to analyze the financial stability are summarized as follows:

**Table 1:** The analysis of the financial stability rate

Nr.	Specification	M.U.	Analyzed period				
			2014	2015	2016	2017	2018
1.	Permanent capital	thousands lei	250.057	248.358	242.057	262.612	287.058
2.	Passive total	thousands lei	345.291	368.187	376.700	392.752	449.313
3.	Growth index for permanent capital	%	100	99,32	97,46	108,49	109,31
4.	Growth index for passive total	%	100	106,63	102,31	104,26	114,40
5.	Financial stability rate	%	72,42	67,45	64,26	66,86	63,89

(Source: own processing)

According to theory, the financial stability rate of a company must surpass the minimal value of 50%, and, in this regard, Antibiotics S.A. registers values superior to the lower limit, with a decent progression from year to year. Beginning in 2014, the rate of financial stability goes on a downward trend until 2016, when a slight increase in it registers (from 64.26% in 2016 to 66.86% in 2017). The unfavorable evolution continues even after 2017, the financial stability rate reaching 63.89% in 2018 (under the limit of 66%, considered as optimal in literature).

This evolution of the financial profitability rate is explained through the evolution of the permanent capital index correlated with the passive total index (between the years 2014-2016, the permanent capital index registers a decrease 1-0.99-0.97, while the passive growth index registers an initial increase: 1-1.07 followed by a decrease 1.97-1.02).

Thus the permanent capital registers a decrease from 250.056.817 lei in 2014, to 242.057.347 lei in 2016, later reaching the value of 278.058.407 lei in 2018.

The debt of the company increase seach year (except 2017, when they register a decrease), an important part of it being represented by short term debts. In the analyzed interval, repeated increases in share capital are operated, either through the capitalization of reserves from the net profit, or through considerations in cash by shareholders.

2. Financial autonomy rate

Financial autonomy puts into perspective the measure in which financing resources belong to the owners. The larger the share of own resources from the total of financing sources, the more increased the financial autonomy of the company is. Two types of financial autonomy can be distinguished and namely: the Global financial autonomy rate expresses the degree of financing for assets based on own resources and is calculated with the following formula:

$$R_{afg} = \frac{\text{Own capital}}{\text{Passive total}} \times 100 \quad (1.2)$$

On term financial rate is determined as a report between the own capital and the medium to long term debts and reflects the ratio of own sources in the total of long and short term debts. It is calculated according to the following formula:

$$R_{aft2} = \frac{\text{Own capital}}{\text{Long and short term debts}} \times 100 \quad (1.3)$$

The dynamics of the financial autonomy rate is evidenced in **Table 2**.

**Table 2: Analysis of the financial autonomy rate**

Nr.	Specification	M.U.	Analysis period				
			2014	2015	2016	2017	2018
1.	Own capital	thousands lei	246.250	246.905	242.024	262.612	287.058
2.	DTML	thousands lei	3.807	1.453	33	0	0
3.	Passive total	thousands lei	345.291	368.187	376.700	392.752	449.313
4.	Own capital growth index	%	100	100,27	98,02	108,51	109,31
5.	Passive total growth index	%	100	106,63	102,31	104,26	114,40
6.	Global financial autonomy rate	%	71,32	67,06	64,25	66,86	63,89
7.	On term financial autonomy rate	%	6768,25	16.994,8	70374,5	0	0

(Source: own processing)

According to theory, the minimal accepted value for the global financial autonomy rate is 33%, and from this standpoint, Antibiotics S.A. registers considerably higher values, that however, follow a downward trend (from 71.32% in 2014 to 63.89% in 2018, with a slightly increased tendency in 2017 – 66.86%).

The downward evolution of the financial autonomy rate is explained through the fact that the growth index of the passive total surpasses the index for own capital growth (in 2014, 2015, 2016, 2017). Although a tendency of reduction in long and medium term debts can be observed, a reduction of 3.807 thousand lei in absolute values, which means a reduction of 100% in relative quantities, the long term debts follow an upward trend, determining the reduction of global financial autonomy.

The global financial autonomy rate is highly relevant for financial institutions in the case of soliciting a loan. Despite the fact that its dynamics is characterized by a slight decrease, the company could apply for a loan, although this is not the case, the company’s policy of reducing long and medium term debts being obvious.

In regards to the on term financial autonomy rate, a rampant increase of it can be observed, from 6.768.25% in 2014 to 70.374.54% in 2016, increase determined by the considerable reduction of long to medium term debts, doubled by an increase in its own capital of 40.809 thousand lei in absolute values.

Indebtedness rates express in relative values the level of debts the company has reported to the financing sources total or its own resources.

The global indebtedness rate compares the debt total the company has towards its creditors, regardless of nature, with the financing sources total. The formula is as follows:

$$R_{ig} = \frac{\text{Total debts}}{\text{Passive total}} \times 100 \quad (1.4)$$

The ratio must be sub unitary (1/3), being further away from 1 pointing out a reduction in indebtedness, thus an increase in financial autonomy. The global indebtedness rate dynamics is pointed out in Table 3.

**Table 3: Analysis of the global indebtedness rate**

Nr.	Specification	M.U.	Analyzed period				
			2014	2015	2016	2017	2018
1.	Global indebtedness rate	%	27,99	30,64	30,33	28,17	31,76

(Source: own processing)

In the analyzed period, an upward trend of the global indebtedness rate can be observed, from 27.99% in 2014 to 31.76% in 2018, excepting 2017, when a reduction occurs, from 30.33% (2016) to 28.17% (2017). This evolution is explained by the fact that the total indebtedness growth index surpasses the passive growth index. Thus, the passive total went up from 345.291 thousands lei in 2014 to 449.313 thousands lei in 2018, which means a growth of 30.13%, while the total debts of the company register an increase of 47.68% from 2014 until 2018.

Although during the analyzed period an increase in social capital from 45.490 thousands lei in 2014 to 56.801 thousands lei in 2018 (which means an increase of 24.86%) occurs, this is not capable of significantly diminishing the ratio of total debts in the passive total.

## V. CONCLUSION

Any company that aims at coping with the requirements imposed by the market economy needs to permanently adapt to circumstantial changes, regardless of its domain, legal status, size or the economic environment where it operates.

An important role in this sense is attributed to the analysis and evaluation of the possibilities a company has in ensuring the needed resources for an optimal conduct of business.

Financing at a company level is largely influenced by the way in which macroeconomic mechanisms function. The company must have rigorous criteria that allow it to select and combine resources.

The structure of the equities used by a company to satisfy investor needs depends on the nature of the company's operation, on its field of activity, on its connections with other economic agents and also, on the external factors that influence it.

Equity structure not only depends on the company, its economic growth objectives, on projected profitability, shareholders, banks or other creditors, the state, the financial-economic conjuncture, but also on the risks taken by the company leadership, by the indebtedness degree and the effects of incurring debt, by the permanent or temporary nature of financing needs.

In order to determine the way in which companies choose their financing sources we must take into account the effects determined by factors that influence decisions regarding equity structure, as an example the profitability-risk ratio.

The importance and over time development of different financing sources of Romanian economic agents are embossed by structure rates.

In the case of the analyzed company, an inclination towards short term debts at the expense of long and medium term debts can be observed. These utilize their own capital and short term debts in order to finance developing projects. Short term debts are mainly made up of commercial, banking, fiscal and budgetary debts, mirroring regular payments which every company makes to the institutions it interacts with in its carried out business.

We consider that, in view of ensuring a more efficient operation of companies' activities and obtaining more precise information in order to make correct decisions within optimizing financing sources, choosing a financial structure by balancing all micro- and macroeconomic- variables is rational.

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