



AB-Biotics: analysis of a company in expansion.

Author: Cristina Rubio Gallén

Tutor: Antonio Vico Martínez

Degree in Finance and Accounting

Academic course: 2016-2017

ABSTRACT

The next project is born with the aim of analyzing the company AB-Biotics, a company in a sector of expansion as it is biotechnology. The purpose of this is to know all the details of the company, with the help of financial and economic analysis in order to obtain what is the current situation of the company. First we made a study of the sector in which the company resides as well as the changes in this. After we focus on the economic analysis and financial aspects of the company as well as of the evolution of the business. Finally, presents the results of the study leading to the conclusion that after a few years difficult the company begins to improve their results and profitability although it is recommended that the company pay attention to its funding strategy.

Key words: AB-Biotics, Biotech and probiotics.

INDEX

1. INTRODUCTION	4
2. METHODOLOGY	5
3. THE FIRM: ACTIVITY, MISSION, VISION AND EVOLUTION	6
3.1 Sector:	6
3.2 Who is AB-Blotics?	8
3.3 Organization of firm	9
3.4 Historical evolution.	11
4. FINANCIAL ECONOMIC DEVELOPMENTS	15
4.1 Anlysis of economic structure	15
4.2 Financial analysis	21
5 ANALYSIS OF BUSINESS EVOLUTION	25
5.1 Business evolution.....	25
5.2 Profitability analysis	28
6. CONCLUSION	33
7. BIBLIOGRAPHY.....	35
8. ANNEX:	36

INDEX OF DATA TABLES

Data table 1: Evolution of the cash and other liquid assets equivalent.....	17
Data table 2: Decomposition ROA.....	29
Data table 3: Descomposition of ROE	33

INDEX OF GRAPHICS

Graphic 1:Distribution of the biotechnology sector according to its scope.....	7
Graphic 2:Growth of the sector Biotech in Spain	7
Graphic 3: The Biotech sector opposite the tourist	8
Graphic 4: Economic structure	16
Graphic 5: Evolution of the rolling fund	18
Graphic 6: Difference among current asset and current liabilities	19
Graphic 7: Balance 2012.....	20
Graphic 8: Evolution of current ratio	21
Graphic 9: Evolution of liability and equity composition.	22

Graphic 10: Accounts of current liabilities.	24
Graphic 11: Evolution of indebtedness.....	25
Graphic 12: Profit and loss.....	26
Graphic 13: Evolution of the income account.	27
Graphic 14: Evolution of ROA	28
Graphic 15: Evolution of ROE	30
Graphic 16: Comparison ROA y ROE	31
Graphic 17: Evolution of financial leverage	32

1. INTRODUCTION

The present work is based on the study of a company of the Alternative Investment Market which was born with the purpose to provide financing to small and medium-sized enterprises with the aim of providing an opportunity for expansion at a critical moment of the market, as it was in 2006. In view of the high volume of this type of companies in Spain, the study to be carried out is an SME located in this market. AB-Biotics is the chosen company that is characterized by being in a growing sector as is the biotechnology

Then there will be a deep financial and economic analysis with the objective of obtaining which is the current situation of business as well as their problems. To carry out the Project, we have differentiated the work in three parts.

First, we will analyze the environment, with a light study of the sector which is followed by all the features and historical evolution of AB-Biotics.

Secondly, it will focus on the economic and financial study which analyzes with more detriment because it is the basis of study. In this section, we will analyze the balance sheet and will be carried out different ratios that help us to see the situation in which the company is. The data that have been chosen, have been for the past four years that have been able to get the annual accounts, these are, 2012 to 2015.

Thirdly, a study is made of the evolution of the business, which will discuss the profit and loss account and the profitability that is obtained from the company. Finally, will present the conclusions of the analysis.

2. METHODOLOGY

To carry out the objective of the study, we have organized in three phases.

The first phase focused on a great search for information with the aim of understanding better the company. For this, it has been structured in two parts: a light study of the sector of the biotechnology and a deep study of the company, which consists of its activity, organization and historical evolution.

The second phase is the most important due to the work is based with this phase. The second phase is the most important because the work is based with this phase. To do this, an analysis is made of the economic and financial structure of the enterprise, as well as ratios are used to know the situation of the company. First we will analyze the

economic structure as well as its solvency and liquidity, then a study of its financial evolution and debt ratios is made

The next step is the evolution of the business where profit and loss, with this analysis is intended to see economic developments regarding the passing of the years. Focuses in two parts, first analyze the profit and loss account and then a study is performed on the returns, both economic and financial.

Finally after making the previous study commented, it will seek to conclude which is the situation that the company is and to give a vision of the future that is expected of it.

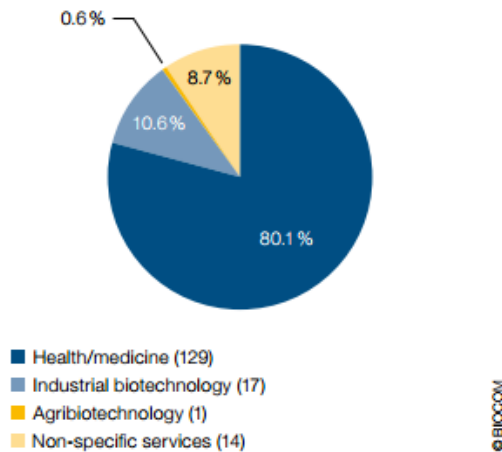
3. THE FIRM: ACTIVITY, MISSION, VISION AND EVOLUTION

3.1 Sector:

The company will analyze operates in the sector of research and experimental development in biotechnology. Thus, according to Agro-Bio (Association of agricultural plant biotechnology) is understood as biotechnology the set of techniques, processes and methods that use living organisms or their parts to produce a wide variety of products for specific uses. This is applied to human health, industry, environment, or agriculture.

The biotechnology sector in Europe continues with a trend of growth and expansion as says Oliver, especially within the sector, the scope that led was the biomedical, as we can see in the graphic 1.

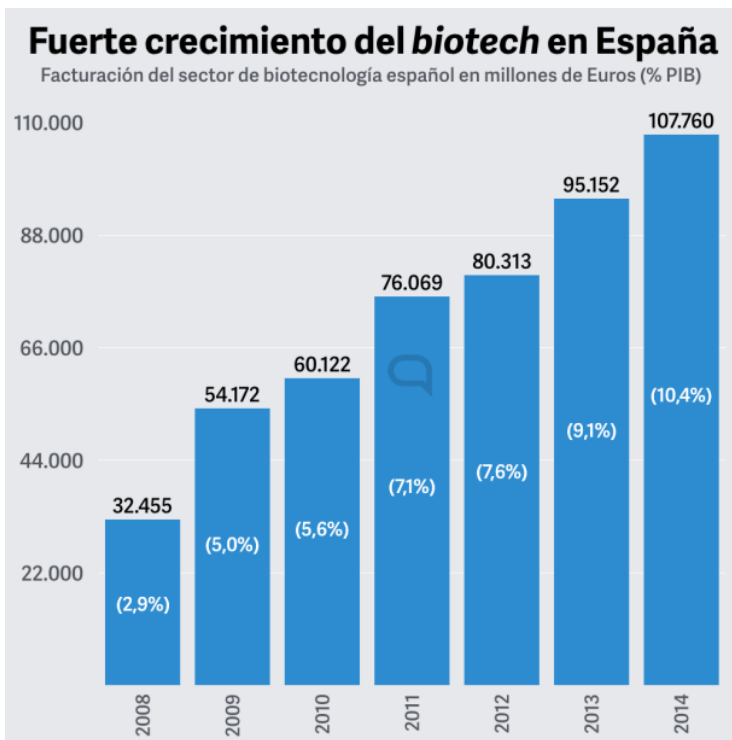
Graphic 1: Distribution of the biotechnology sector according to its scope.



Source: Biocom AG, 2015.

Last years, ASEBIO affirms that the evolution of the sector of Biotech, which is as they name the companies inside the biotechnology, has experienced a big change in Spain. The invoicing of this has been increased by 8 percentage points between 2008 and 2014, as we can see in graphic 2.

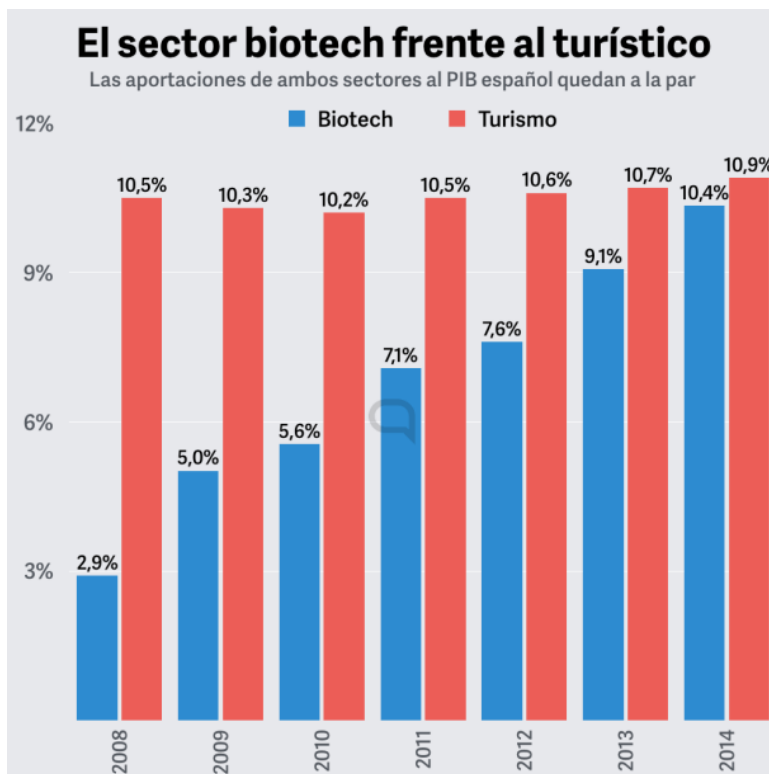
Graphic 2: Growth of the sector Biotech in Spain



Source: Barredo, 2016

The year 2008 this sector only accounted for the 2.98% of the gross domestic product (GDP). The report highlights the great evolution in the turnover of enterprises in this sector because 6 years later, exactly in 2014, the weight of the sector reached 10.35% of the GDP. An unthinkable fact in 2008, as we can be seen in Chart 2, the contribution of the biotechnology sector is approximate to tourism that is situated in 10.9% in the year 2014. For years, tourism has been one of the sectors that has most contributed to the GDP, these data are encouraging to create a change in economic structure in Spain. Currently, Spain is a leader in personalised medicine and in the development of innovative drugs for the treatment of cancer, Alzheimer disease, autoimmune diseases and infectious diseases, which are among the first ten European countries in the development of drugs.

Graphic 3: The Biotech sector opposite the tourist.



Source: Barredo, 2016

3.2 Who is AB-Blotics?

According to the web of AB-Biotics, it is a Spanish company created in Barcelona in 2004, leader in biotechnology and whose main activity is diversified in two business

areas based on the research, development, protection and distribution of own biotechnological solutions and exclusive.

The company has an innovative philosophy and it has an own know-how that allows to develop cutting-edge products that bring to the market a high added value. AB-Biotics projects offer to the pharmaceutical and food sector higher efficiency products which help to improve people's health as well as it can contribute to the reduction of health costs.

The mission of this, is to improve the health and welfare of the people through the development of products and the provision of services that help to support a healthy life and prevent diseases.

Its vision is to establish a standard in the European Biotechnological industry offering value and profitability. As well as it facilitate innovative products to improve the health of the people and provide diagnostic information tools to health professionals to facilitate the control and the prescription of their patients.

The company has focused its activity in research and development of innovative products in the areas of personalized medicine and functional ingredients to be established in the coming years in a world reference in biotechnology and genetic research. Currently, AB-Biotics seeks synergistic collaborations with other companies (such as for example pharmaceutical or food companies) to jointly develop new solutions, as well as continue with the search for partners interested in licensing its products to market them into new markets.

Today, AB-Biotics is internationally renowned and pioneer in the área of biotechnology micro biome, probiotics and personalized medicine. In last two years it has been able to sign trade agreements with different partners at the international level. Marketing its products in 38 different countries.

3.3 Organization of firm

The business model of AB-Biotics is based on the coordination of external networks of production and distribution and in the management of the innovation of form open by a powerful and qualified scientific group of the company. AB-Biotics has marketable products derived from their two technology platforms.

Until 2012, the company had three lines of business, but is this year where the company

designs a new organizational structure with two main areas of business thus eliminating its third area: “AB-Biotics quantum & r & d services” aimed at providing research and development services for other companies, mainly in the food and pharmaceutical sectors.

So in 2013, the company focuses on two areas, placing the development of business in the center of activity and keeping the innovation processes that make up the core business, which refers to the activity capable of generating value and that it is necessary to establish a competitive advantage to the organization. At present, the two areas that form the company are: Ab.genotyping and AB-Biotics functional ingredients.

The first area is known as AB-GENOTYPING which focuses on the development of genetic analysis to elaborate studies of pharmacogenetics, which is the discipline that studies the variability of response to drugs in different patients depending on their genetics. That is to say, it studies the way in which patients respond to different treatments and drugs according to their genetic heritage. The purpose of this is to offer physicians more information about the most effective treatments and the most suitable dose for each patient known as personalized medicine. The first product released by the company was Neurofarmagen, a DNA chip that saliva analysis allows to assess the predisposition of the patient to respond to the most commonly used drugs in the treatment of neuro psychiatric illnesses such as depression, schizophrenia, bipolar disorder or epilepsy.

The second area is AB-Biotics ingredients functional where is the activity of the company focused on the development of functional ingredients to improve the health of people, especially probiotics and other nutraceuticals for application in functional foods and supplements. It is functional ingredients for the prevention and treatment of a wide range of diseases, from cardiovascular diseases to colic infantile, among others.

This market is constantly growing: it is expected rhythms of two-digit annual growth over the next 5 years, due to the higher incidence of chronic diseases and the progressive aging of the population, who have raised awareness in society about the importance of bringing a lifestyle and a healthy diet. Added to this are the documented positive effects of probiotics (live microorganisms that have important health benefits), and the growing trend in the implementation of preventive treatments. We include in this area all probiotics, for example, AB-LIFE which is intended to improve cardiovascular health or AB-FORTIS used for child cognitive development.

The company is listed on the MAB since 2010, their products are currently marketed in North America, Europe, Asia and Latin America. Specifically in 38 countries.

3.4 Historical evolution

AB-Biotics S.A was founded in 2004 in Barcelona but until 2010, we do not get detailed information of the company. It is in this year, particularly in the summer of 2010, is where we find more information of the company and it is in this moment when the company enters to form part of the Alternative Investment Market (MAB). Thus, the first company with headquarters in Catalonia that is listed in the MAB. The company, is negotiated in the segment of expanding businesses of the MAB under the Code ABB.

Society considered as a start-up, this type of company is defined as a new company which has a great potential for growth and, occasionally, a scalable business model. In addition, To others it is considered a risk capital company, in 2010 Bonachera, one of the largest shareholders in the company, argued that "We are a project of risk capital and therefore we want to offer a high-yield investors".

At the time the company is incorporated in the MAB, creates different capital increases. Motivated by the entry on the stock exchange, the company took the opportunity to increase the value of equity position and attract money to invest in projects or even to pay debt.

In this period, the society was the presentation of a probiotic solution whose purpose was to treat and prevent cardiovascular disease by reducing the level of cholesterol. The product called AB-LIFE, would come to market a few months later. Also note an important agreement with laboratories Rubio, who would help the marketing of one of its products at the national level. The product is the Neurofarmagen TDAH which is used for the disorder attention deficit hyperactivity. Also provide a right to preferential option laboratories Rubio to granting rights of distribution exclusively for Germany, Netherlands, United Kingdom, among others.

The most notable incident took place at the end of this year with the acquisition of Quantum Experimental S.L, company specialized in providing research services and product development to other companies in the pharmaceutical sector, medical cosmetic and food, located in Madrid. According to press releases from the company, the aim was to create a synergy between the two companies and get a greater optimization of

resources and complementarities of activities to offer an integral service to the market, as well as to accelerate the marketing of own products. In addition the company in Madrid, was already in international markets with which was a business opportunity to expand more easily.

In April 2011, the Universitat Autònoma de Barcelona informs an extension of 1.43 million euros subscribed entirely by members of the Quantum Experimental S.L company representing 8.3% of AB-Biotics. So, with such an increase is financed the acquisition of the company. On the other hand, the Catalan company move forward with its strategy of growth thanks to the purchase of the madrilenian society who is already in international markets. To support internationalization, the company launched a new extension with the purpose of the preparation of a business plan to expand to countries like United States, United Kingdom, Germany and others. The contribution of the plan was exceeding 400 thousand euros.

After the plan in 2011, the following year the company focuses on settle your comprehensive business databases, looking for and obtaining new licenses, new countries where they market their products as well as the introduction of new distributors such as Lacer Farma or Leti S.A.V. In these years, the entity manages to enter markets Moroccan, French, Chilean, Venezuelan or Mexican, among others

Highlight a contract with Almirall, S.A., a company through which the pharmaceutical promoted exclusively products of pharmacogenetics. This AB-Biotics will address effective products sales, while Almirall will design and implement strategies of communication and marketing them. In this way, both companies will collaborate in the promotion and marketing of Neurofarmagen.

Another highlight of 2012, is that at the end of this year the company decided to change its internal structure and focus on two main areas of business, thus maximizing its efficiency and the development of business-oriented. Therefore decided to sell its subsidiary Quantum Experimental, S.L to Nagano Business society. With this sale, was the focus in the marketing of their products through licensing agreements.

Moreover, society conducted a capital increase open the MAB allowing to capture 4.309.881,40. This marked the entrance of new shareholders, highlighting Almirall S.A. and the Catalan Institute of Finance (IFC). The captured capital was intended largely earmarked to continue funding the international expansion of AB-Biotics in the context

of the new business created because of the change of structure plan. The entry of Almirall, allowed to enhance the commercial expansion of its products. With the sale of Quantum and the expansion of 4.3 million, the society was facing a year 2013 with an important strength, both financial and shareholder.

In 2013, after the transmission subsidiary of Quantum services and a series of relevant commercial advances in the previous months, the company was motivated to adopt a strategic shift that gave place to an update of the business plan. This time was based on the focus of its main lines of business: Functional Ingredients; and Genotyping explained above.

This year, marked the start of a consolidation of the process of internationalization as well as the updating of the internal structure of the company. Highlight a new capital increase amounting to 1.12 million euros, being society Seed Capital the main subscriber acquiring 5.2% of the shares of the company. . This capital will be used to finance various programs of research within the two business lines, as well as to the international expansion of the Neurofarmagen product.

This year continue to patents and agreements with different companies. Business plan began to give fruits even improved the estimated results thanks to the centralization in the two areas of business. But this year there was a reduction of activity with which the company not could carry out all their plans and invest as planned. To avoid resources by criteria of profitability and idle, it had to invest their assets.

The period of 2014, is marked by licenses, since this year 29 license agreements are created with new business partners. The company gets presence in 22 countries with which the process of internationalization is giving its fruit. Note an increase of marketed products, as well as closed contracts allowing you to launch their products in new countries or even contracts with other companies for the development of new products in the area of functional ingredients.

At this point, the income generated by the company are in four geographic areas. These areas are as AB-Biotics divides its business and are: Europe, Latin America, Asia Pacific and North America-MENA. This diversification in revenue allows you to minimize the seasonal nature of sales.

AB-Biotics reports a significant fact of the Constitution, on 23 December 2014, of the subsidiary "AB-Biotics Research Services, S.L." in which the company is the sole

member constitute a contribution valued at four hundred thousand euros. The subsidiary aims to activities of research and development and provision of consulting services in the field of biotechnology and genetics, as well as licensing of manufacture, patents, formulae, trademarks and other intellectual or industrial property rights and the exploitation of these rights. The subsidiary Food Genomics, S.L.U. in order that company to participate in the program of acceleration Prometheus is also reported.

The year 2015 is complete with a subscription of 27 new license agreements which together with the previous years have allowed to have a presence in 29 countries. Increasing your marketing in 7 new countries. In addition, the company started in about 50 countries regulatory processes. Also noted the favorable evolution of the company, who suffers a considerable increase of their income for the year 2014.

An important agreement was that was signed between the company and Experimental Quantum, S.L., which consists in the transfer of results and trading exclusive of a product for the treatment of peri-implantitis, for whose acquisition the company paid as compensation rights of credit of 1,500,000 euros owed by the firm Business Nagano, S.L. and 478.000 euros owed by Experimental Quantum society , S.L, and 20% of the net sales of the product only during the first two years of its marketing, with a minimum of the same set.

The company faces the future with the aim of further increasing the number of agreements for development and marketing of licensed products. As well as the transformation of the company to secure a biotech start-up.

The company's latest report, argues that the development of AB-Biotics business model is at an early stage of value creation, through research, product development and the distribution of licenses. Through the transfer of knowledge, the company has already managed to reap the first fruits of their work, thanks to its international expansion with the distribution of more than 40 licenses of exclusivity. The company is currently in a phase of growth, which is also shown with obtaining patents for various products around the world, such as the "AB-Dentalac" and "ABFortis". Following this strategy, AB-Biotics could be used in the medium term these efficiencies to get take advantage of economies of scale, as well as an improvement in its structure of variable costs.

In this sense, the figures from the company have already proved a positive trend with an

increase in the profit for the year as you can see in the losses and profits in annex 2. But the company also has more potential since collaboration with various partners and other business partners, offer the ability to increase their supply on the market.

4. FINANCIAL ECONOMIC DEVELOPMENTS

The economic-financial evolution of the company will be realized of last 4 years, this period is comprised from 2012-2015. We will differentiate this part of the study in two, first we will analyze the AB-Biotics economic structure, and on the other hand there will be realized the study of the financial structure.

In the first place, we will examine the economic structure of the company that will focus on analysing the assets, namely, the goods and rights with which the company account. The structure is divided into the permanent assets (assets Non-current) and current assets. The difference among these is that the permanent, ensures the life of the company and the assets are the product of the production cycle and the business of the company. Within this analysis we will study the solvency and liquidity of the company.

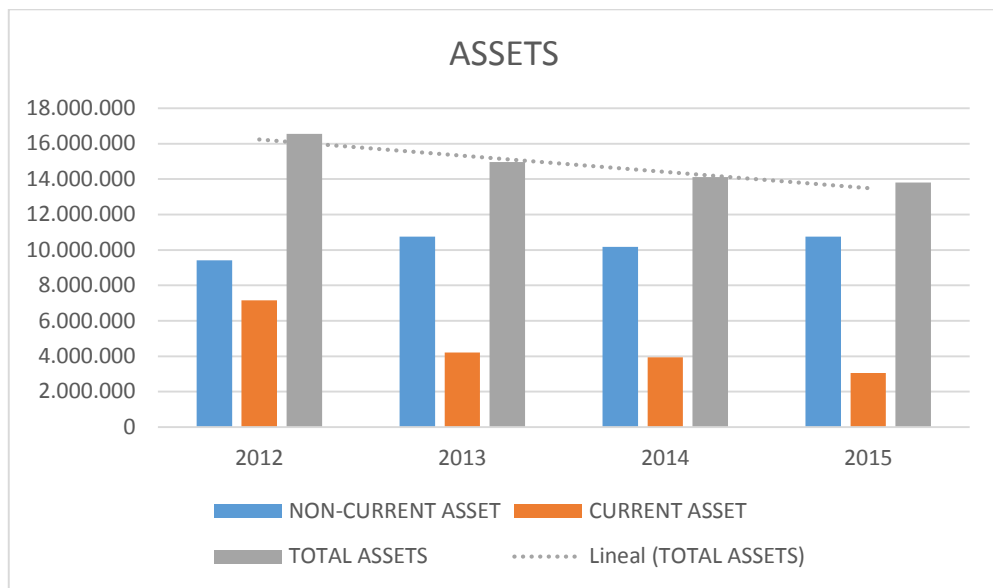
Secondly, we will focus on the financial structure where we will analyze the passive place where the sources of financing of the undertaking are collected. With this, we can determine how the company is financed Liabilities are equity (partners money) current liabilities and non-current (agents external to the company in the short and long term respectively).

Basically, the realization of this analysis carried out to collect financial data from the company that will be used to compare the difference existing among the various groups that form the financial structure and to observe the changes presented by the various operations of the company. This analysis helps to the decisión making

4.1 Anlysis of economic structure

To analyze the economic structure, we will use the graphic 4 that showing the evolution of departures that forming the asset. At a glance, we can see where is the greater weight of the company, this is concentrated in the asset is not current.

Graphic 4: Economic structure



Source: Own elaboration from the annual accounts.

The tendency of the goods and rights of the company is downward we see that the asset will reducing moderately until the year 2015, this is reaffirmed by marked the total asset trendline on the graph. This line is down which means that the value of the asset is increasingly less. Mainly, this trend is due to that the company has had a change in the active current that has been significantly reduced. On the other hand, the non-current asset does not suffer significant changes since this is around 10 million in the period under study. But we noticed a few light promotion in 2012 and 2015 with regard their past, variations that we will explain later.

To explain the sudden reduction of the current assets, from 2012 to 2013, we must understand because it has that value in the current assets in 2012. That year, cash and equivalents have a percentage close to 30% of the total of current assets, but in terms of total assets refers this percentage increases to 66%. So, this is the account with major proportion within all the assets. Thus, the study will focus on cash because with a year of difference this item is reduced by 20% in the active current and is the most significant change in the balance of the company, as you can see in table 1.

Data table 1: Evolution of the cash and other liquid assets equivalent.

	2012	2013	2014	2015
Cash				
and other equivalent liquid assets	4.754.569	1.273.959	1.038.224	604.536
% respect to current assets	28,71%	8,51%	7,35%	4,38%
% respect to total assets	66,45%	30,31%	26,32%	19,79%

Source: Own elaboration from the annual accounts.

As we can see in table 1, the values of cash in 2012 were about 5 million instead in 2013 the company has just over 1 million euros. The amount of cash in 2012 is due to the fact that the firm at the end of that same year sold the subsidiary Quantum with the purpose of making a new organizational structure of the association. In contrast, this is not the main cause for the company to have abundant cash, if not that really, the increase in cash is given by a capital increase of more than 4 million euros. This increase was intended for a new business plan focused on financing the international expansion of the company.

So, both reasons are causing that the company had this abundant amount of cash.

In 2013, the company met with an excess of cash which was used for the habitual consumption by current spending and for investments in long-term financial instruments, this account growing 631miles euros from the year before as shown in annex 1. These have been the causes for which the company has been reduced its cash, and at the same time, the departure of current assets. Initially the company had no intention of investing in these instruments, since enlargement was going to be dedicated to the activity, but the volume of business in 2013 was reduced. Therefore, the Organization was obliged to invest the surplus in long-term investments by question of criteria of profitability for the company and thereby avoid own idle resources.

Except for this remarkable change, the company continues with negative trend in current assets, but this is moderate, as well as the cash. The changes are motivated by the normal activity of the company and supported by the favorable evolution of the activity of the corporation.

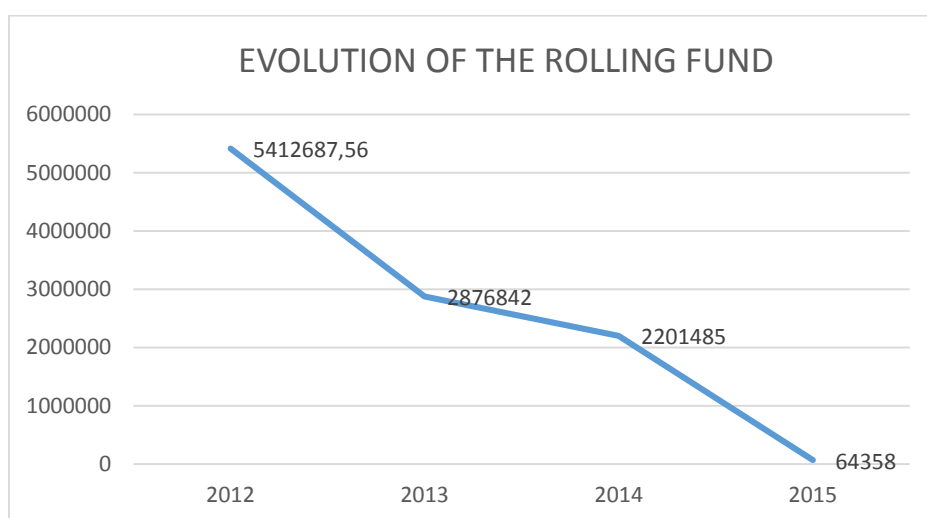
Secondly, we will focus on the change of the asset are not current in two points, in 2013 and 2015. The variation of 2012 to 2013 was due to investments in instruments that have been made with the treasury as well as by an increase in the rights of charge for deferred taxes. In conclusion, the current assets is modified by reducing the cash and the no-current assets is modified due to the investment of this cash in this type of financial investments and in the deferred tax collection rights.

Highlight, a second change of non-current assets, which is not so noticeable, but interesting. This is between 2014 and 2015 which is caused by an increase in Intangible assets produced by research and development activities as well as investments in patents and software elements. This item is increased 59% compared to 2014, as a result of an acquisition of a technology for a new treatment.

With the analysis of the assets of the company made, we will carry out a study of liquidity and solvency. First we will focus on its solvency helped with the rolling fund and then will be the liquidity of this company.

In the graphic 5, we will find the evolution of the Fund of maneuver that as can be seen every time is less. Have a positive rolling fund indicates that the company is solvent in the short term. With other words, a company is solvent if when it sold all of its holdings, it charges the debt of all its customers and also with their cash, it is able to meet all debts that the company maintains short-term, as for example, debt with short-term credit or debt with suppliers.

Graphic 5: Evolution of the rolling fund



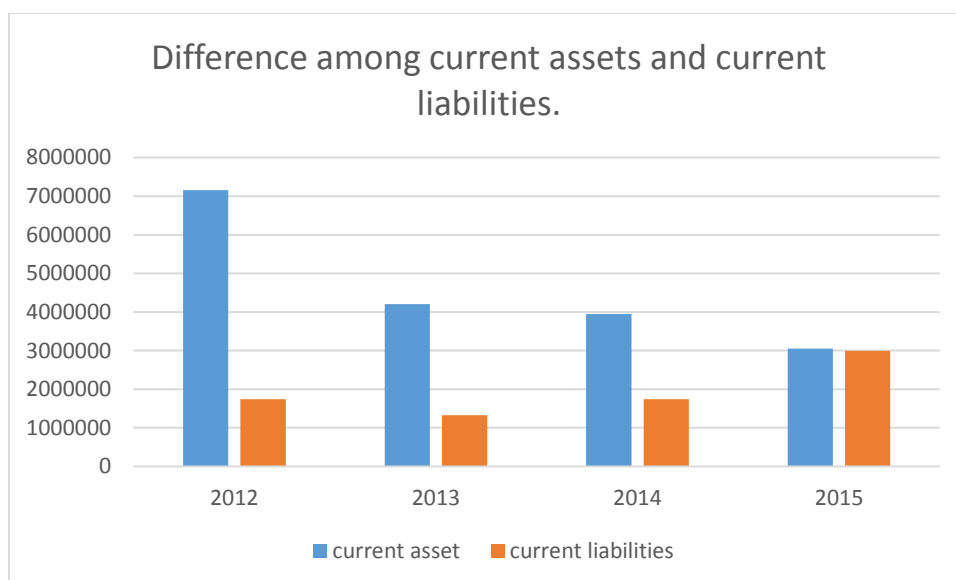
Source: Own elaboration

In the case of the probiotics company, we can say that the company can cope with short-term debts with its active power, since it has a positive rolling fund. But we must bear in mind that not always a positive rolling fund is a good result, since an excess can lead to problems of efficiency. The rolling fund is the difference between the current assets and current liabilities. This is:

$$CA-CL = \text{Rolling fund.}$$

We believe that the best way to see this difference, is carrying out a chart that compares the current assets and current liabilities. The difference between the columns is the rolling fund.

Graphic 6: Difference among current asset and current liabilities



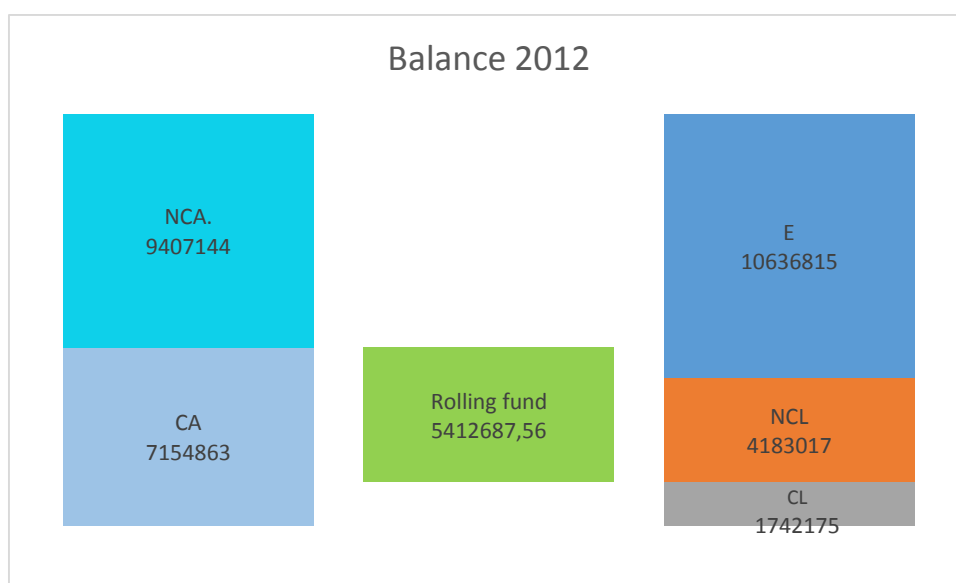
Source: Own elaboration from the annual accounts.

Graphic 6, shows the current assets and the current liabilities in different years that we are studying. As you can see, all the years the company can cope with debts in the short term (current liabilities) with its current assets since is clearly observed that the current assets is greater. It should be noted that the first year, the company can cope with its passive obtaining a significant surplus, this is of more than 5 million. The rest of the year, has a minor over where almost gets the active current and current liabilities balance by 2015. So we can consider that with the passage of time, the company has managed to take advantage of its resources while being close to the balance isn't a positive any adversity the company may not be solvent. For example, due to lack of payment of their customers, the company would have solvency problems. The year 2012, the surplus is

high with which we can consider that it is not positive for the company to obtain such a result. In graphic 6, we have the composition of the balance of this year, as well as the result of the rolling fund.

The year 2012, the surplus is high with which we can consider that it is not positive for the company to obtain such a result. In Figure 6, we have the composition of the balance of this year, as well as the result of the rolling fund.

Graphic 7: Balance 2012



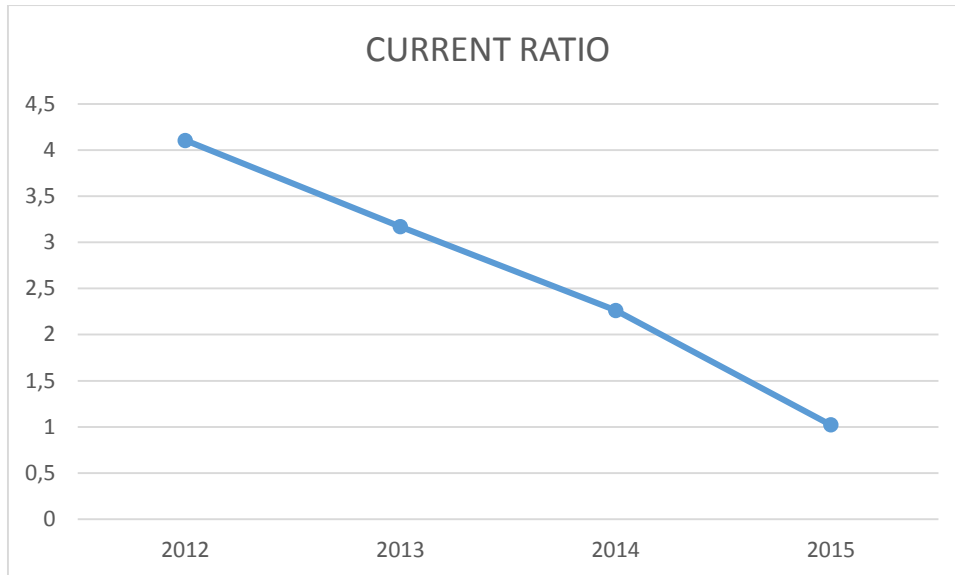
Source: Own elaboration from the annual accounts.

You can see how with the rolling fund that gets this year the company has the power to deal with all of your debts in the short term, it would even be able to pay debts in the long term because you can see how the rolling fund is greater than total liabilities. This excess of cash leads to a loss of profitability caused by having idle resources, that is to say, resources that the company does not take off the optimization. As we have explained above this value in the active current is given by the sale of Experimental Quantum and capital increase.

At this point, we have studied if the company is able to meet its debts, then, will make the ratio of liquidity which measures liquid so that it is the company, i.e. the business capacity to cope with short-term liabilities without difficulties. It shall be deemed that a company has an ideal result when its liquidity ratio exceeds 1. As we confirmed in graphic

8, the company would be in an ideal situation, since in the period studied, the company has one ratio greater than 1.

Graphic 8: Evolution of current ratio



Source: Own elaboration.

According to the graph 8, and knowing that the ideal result is 1, we can argue that the company has a large deviation upward since it exceeds the perfect result, except in 2015 having a value of 1.02 and could consider that the company may have liquidity problems in the future if this result continues the negative trend as firm would have little margin for error in situations of non-payment. Confirming what was said in the rolling fund, the company these past 3 years has had idle resources since the value of the ratio is too high, even reaching 4. Thus, the company has wasted its resources during the past 3 years since these resources could have obtained a return. These data tend to indicate the existence of a productivity problem. The purpose of this study is to give an overview to the company regarding its liquidity and thus be able to take steps to solve future problems.

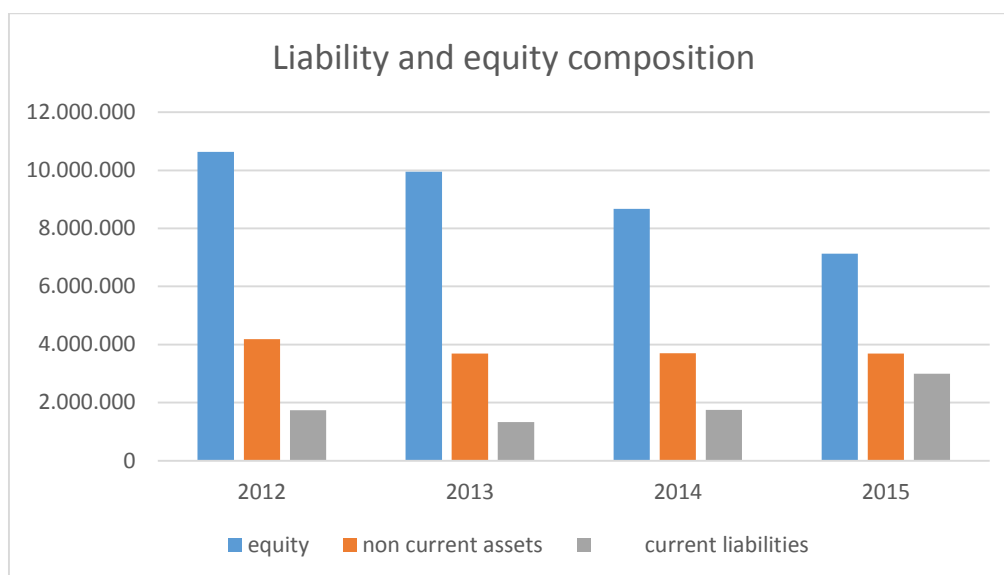
4.2 Financial analysis

After the analysis of the economic structure, we will carry out the study of the financial structure of AB-Biotics. This structure indicates which are the resources that have the company to finance the previously analyzed economic structure. These forms of finance

represent a cost to the company. In addition, we will study the way in which the company is indebted, from the debt ratio.

First of all, look at the composition of the financial structure of the company. To do this, use the following graph which shows the three main headings: net equity, non-current liabilities and current liabilities as well as their amount.

Graphic 9: Evolution of liability and equity composition.



Source: Own elaboration from the annual accounts.

At first glance, it is understood that the most important departure of AB-Biotics is equity. Although this will reduce with over the years because of the result of the company and the previous years which remain negative for years as it can be seen in annex 3. On the other hand, not current liabilities is that its value remains constant throughout the years, instead the current liabilities has various changes which we will discuss. In terms of equity, its trend is downward, but reduction is moderate with the passage of the years. Not include any point since every year the reduction round 1 million euros. This reduction is given by the constant losses suffered by the company and its accumulation since the company has not obtained benefits in recent years. Own funds accounted for around 60% of the total of the financial structure of the company. Thus, we can say that the company is financed by its own funds.

We know that a company must be dissolved when losses exceed 50% of the issued capital. Victor García montero explains, that the causes of compulsory dissolution are

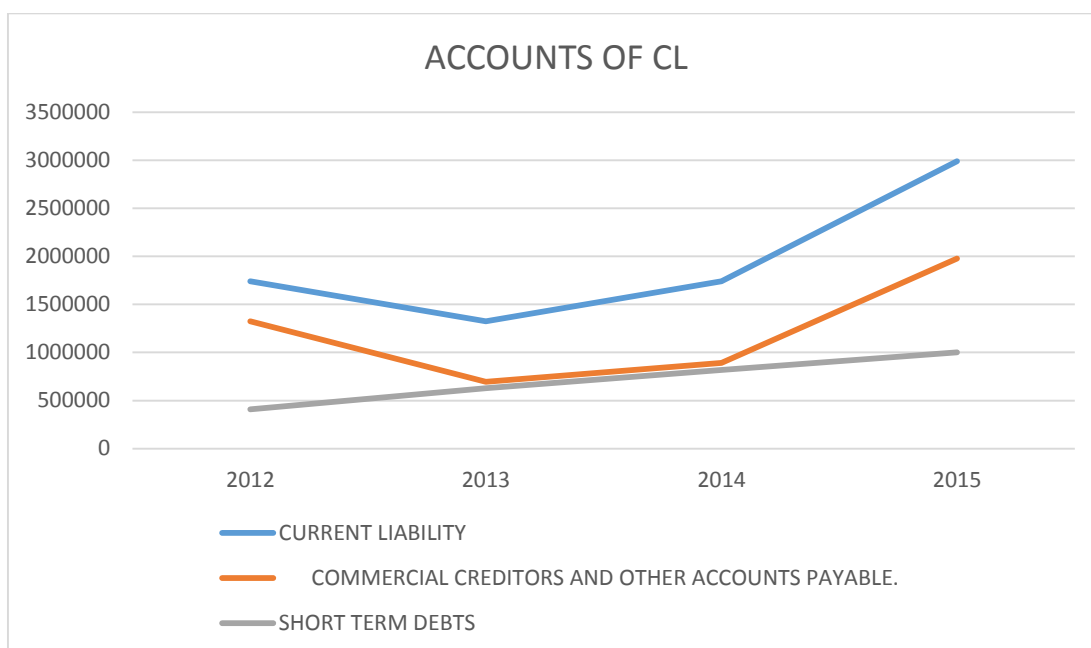
regulated in article 363 of the Law of Capital Companies if the loss leave reduced the equity to an amount less than half the share capital the company must be dissolved. Faced with this situation, we find different solutions that are approved at the Annual general meeting (AGM), AB-Biotics opted for the realization of issue of new shares. Thanks to this issue, the company remains in operation. As shown in annex 3, the departure of share premium each year is higher derivative of the capital increases made by the company. These increases are for purposes to the activity of the company, as well as prevent the dissolution of this. Without this number, we could say that the company would suffer risk of dissolution in the absence not to take another series of measures.

The non-current liabilities represents around 25% of total liabilities of the company during the period. Their departure is based on long-term debts, such debts incurred the vast majority with credit institutions as you can see in the company balance sheets in annex 1. This has no remarkable changes.

On the other hand current liabilities has various changes. These fluctuations are related to commercial creditors and other accounts to pay. The departure of current liabilities is formed of 3 great accounts as we can see in the balance sheet in annex 1, where the weight of current liabilities is concentrated only in 2, these are the accounts of creditors and debts short term. If we look at the graphic 10, we can see how current liabilities fluctuates in a similar way to trade creditors and other payables, this item includes suppliers, creditors or Treasury debts.

So, the departure of creditors and the tendency of this is related to the business activity. In 2013, it undergoes a reduction linked to the decrease in activity. The two following years there were increases in this account due to the growth of the activity of the Company, although it should be noted the increase in 2015. So, we find a direct relationship of current liabilities to their creditors and simultaneously with the activity of the company. To greater activity greater consumption, and thus greater are against suppliers, creditors, or public finance needs.

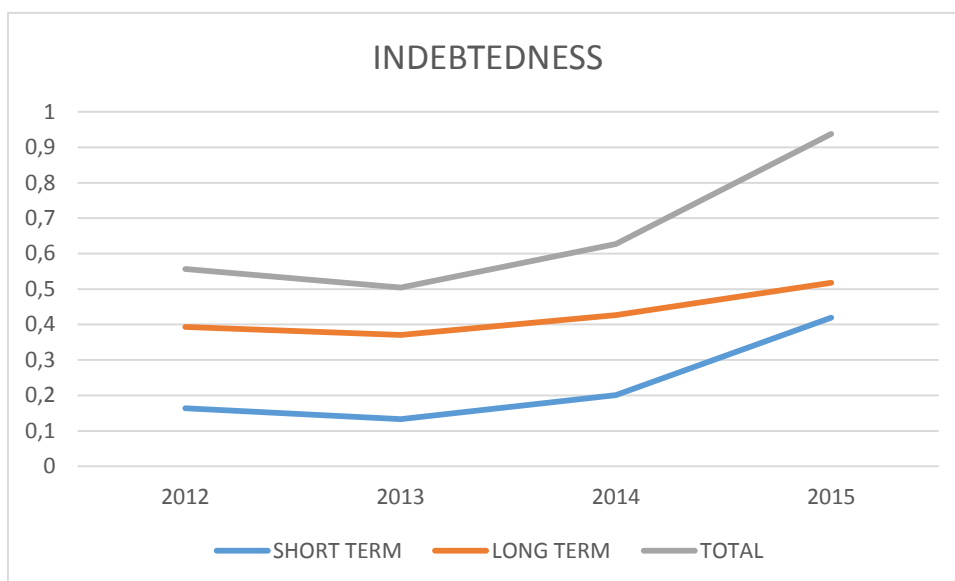
Graphic 10: Accounts of current liabilities.



Source: Own elaboration from the annual accounts

Following the financial part, we will focus on the form of borrowing that has the company. So we made a line graph that shows the proportion of debt that supports the company in which is observed that indebtedness is higher with the passage of time, although he suffered variations in these 4 years. We focus on the total indebtedness, an ideal percentage could be between 40-60%. Low levels of indebtedness are that the company may be incurring an excess of idle capital, and loss of profitability. On the contrary, high values would mean borrowing too much. With this situation the company can have a decapitalization and with it a loss of autonomy against third parties. Thus, as shown in the graphic 11 can establish the entity subject to the 3 first years of study, instead in 2015, the company has a high percentage of debt. His percentage slash 95% with what the company is at a critical point since this result means that liabilities are close to being equal to the equity and has risk the company suffer a decapitalization. The cause of this high percentage is basically by an increase in borrowing in the short term by 30% where this growth is focused on suppliers and creditors of the company.

Graphic 11: Evolution of indebtedness



Source: Own elaboration.

Although the latest data of the company assumes a negative by its high indebtedness and whereupon a strong dependence on external financing. Long-term debt is still greater than short-term, data positive for the borrowing since it is recommended that happen as well.

5 ANALYSIS OF BUSINESS EVOLUTION

The first step to analyze the evolution of the business will see the company's internal data. The second step, will be held later with the help of a series of ratios with the aim of achieving the profitability of the company and the shareholder. These data help determine the health of a company and obtain its evolution. Variables to obtain yields are important to the company, since they are directly related to the decisions taking the organization. To obtain a certain profit is assuming a risk that must be taken into account for the company, since it must be clear that greater profitability is related to an increased risk.

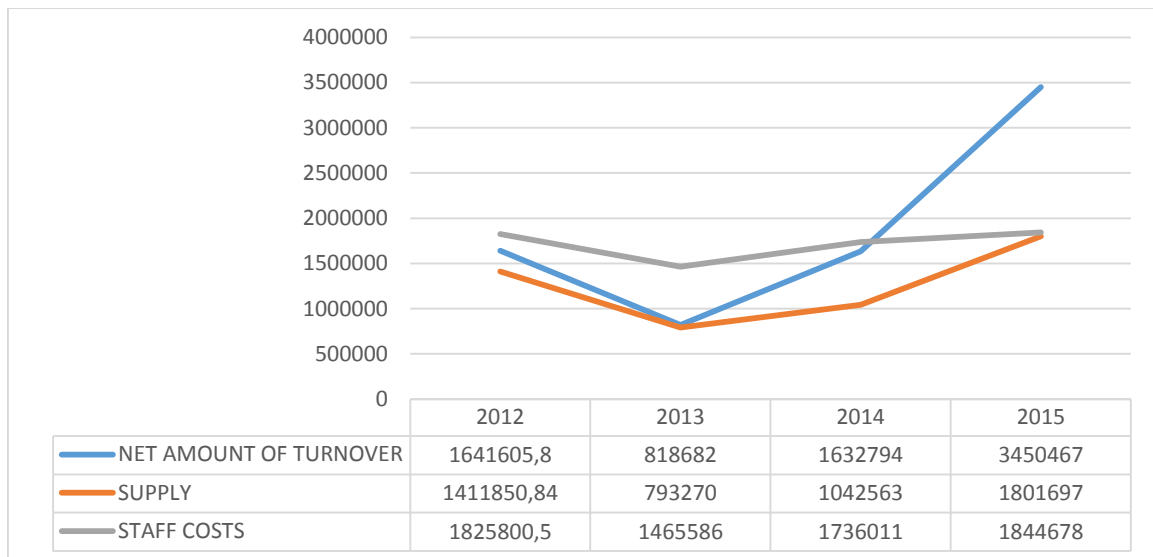
5.1 Business evolution

As we have already mentioned, we will first discuss those most important items within profit and loss. To do this we have helped us a graphic.

According to the graphic 12, the trend that follows the amount of business is up as well

as so are costs, since these parameters are interrelated, how much greater volume of business increased costs are. The amount of business has a turning point in 2013, moment in which the company makes a change in its organizational structure. This change, meant for the company strengthened the area of business development through contracts and agreements with companies of reference in the market both nationally and internationally in order to achieve its internationalization process. Thus, revenues from sales of products and services were decreased by 38%. From 2013 the company grows moderately because of internationalization which began to be implemented vigorously year, later said the company sees increase their volume of business through this process that involves among others major agreements and licenses.

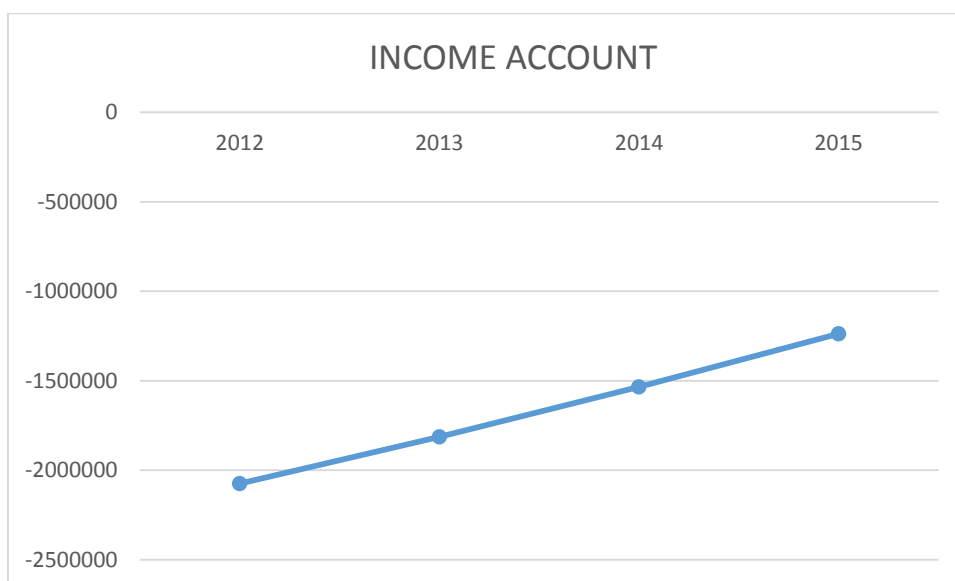
Graphic 12: Profit and lost



Source: Own elaboration from the annual accounts

Analyzed in detail some important aspects of the income of the exercise, then we will see which is the trend that follows the company over the years. That is to say, the evolution of its result. We can say that the trend that still is positive, while the result for the year is negative and the company still failed to get a positive. On the other hand, the results are favourable since the company increasingly approximates more results 0. The difference from the first year that we looked at and the last is about 1 million euros less than negative result, whereupon the institution throughout the years is getting to improve your outcome. As we have seen in graphic 10, this improvement in the result is basically that the turnover is higher since other expenses have not suffered big changes, as it is the personnel expense.

Graphic 13: Evolution of the income account.



Source: Own elaboration from the annual accounts

Up to here the study of the financial structure where we find large deficits in the company to cope with a positive improvement of their results. Even significantly increasing its turnover society does not reach for optimal results.

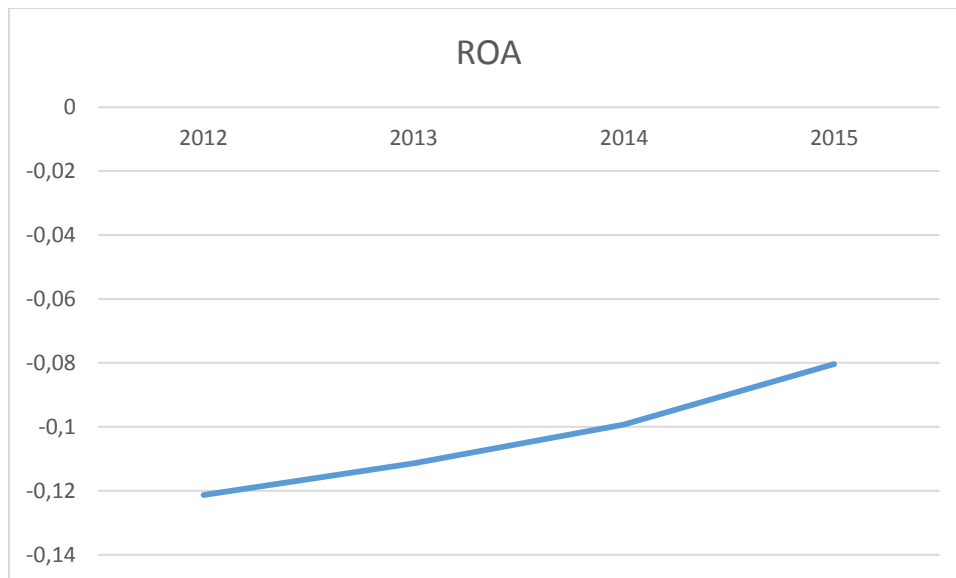
An important fact to highlight, is the share premium, as we have previously discussed thanks to these contributions in kind is achieved not close the company and that this still in operation. Since observing the annual accounts, Annex 3, we notes that the income of the exercise is greater than net equity if not rises with the share premium.

Then we will focus on the study of the profitability of the assets of the company and financial profitability or shareholder. For this, we will use return on assets (ROA) and return on equity (ROE) respectively. First we will make the analysis of the ROA and then the ROE, since ROA is a function of this.

5.2 Profitability analysis

To measure the profitability of the company we use the ROA, and as we can find in the graph 14, the company counts with an ROA negative but with positive trend near 0. Thus we can say that the company does not get economic benefits with respect to its total capital. That is to say, the company still does not have a profit. The company has few assets that are not being used or managed correctly. Currently, the profitability for every euro invested in the company is negative, for example, in 2015 for each euro invested one obtains a loss of 0.08. The capital that the company was investing in production yet produces no benefit.

Graphic 14: Evolution of ROA



Source: Own elaboration

In general, we can establish an acceptable ROA, one whose value is greater than 5%. The firm is far from such a result so we can say that with assets owned by the company, this fails to get the maximum profitability. We know that the company does not make the most so we will perform the decomposition of this ratio. Normally, a negative ROA is accompanied by high levels of debt that magnify the effect of the ROA negative. The ROA decomposes into margin and rotation. The formula that follows is as follows:

$$ROA = \frac{NET\ INCOME}{SALES} \times \frac{SALES}{ASSET}$$

This means, $ROA = MARGIN \times ROTATION$

To see the reason for the improvement of this ratio, we use table 2 showing us the evolution of the margin and rotation.

Data table 2: Decomposition ROA

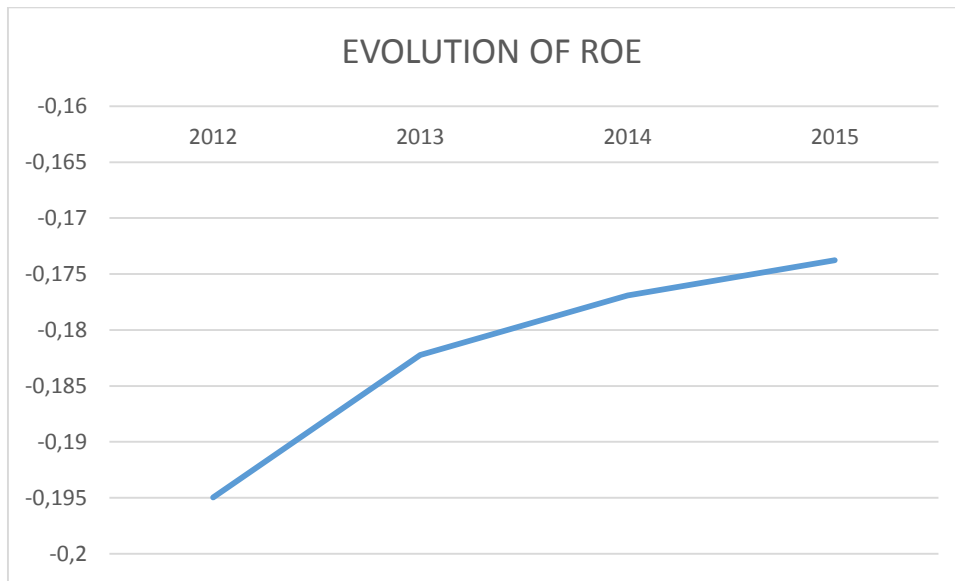
	2012	2013	2014	2015
ROA	-12,129%	-11,142%	-9,929%	-8,040%
MARGIN	-122,367%	-203,622%	-85,859%	-32,173%
ROTATION	9,912%	5,472%	11,564%	24,991%
CHECK ROA = MARGIN x ROTATION	-12,129%	-11,142%	-9,929%	-8,040%

Source: Own elaboration.

The two concepts are suffering a considerable improvement in this period. The margin has obtained a reduction of 90 percentage points with which the company is closer to obtain wealth for each monetary unit. In 2015, lost 0.32 cents per euro when 3 years before is lost was of 1.22. The improvement is due to positive change that have experienced the result and the number of business that we have previously analyzed. Moreover, the rotation has increased 15 points from the first year analyzed at last, also due to the increase in the amount of business and by the slight decline in assets. Thus, the company has improved the number of times that the assets are converted into sales.

On the other hand, we will analyze the profitability of the shareholder with the help of ROE. This shows us the fruit of the investment made by the shareholders, that is to say, the performance you get these by your investment. The shareholders aim to obtain a higher return on your investment. In the Graph 15 it can be seen that the company has a negative ROE. This means that the shareholders do not gain any profitability if not that for every euro invested lose a much, for example, 0.17 cents lost in 2015 to invest a euro.

Graphic 15: Evolution of ROE

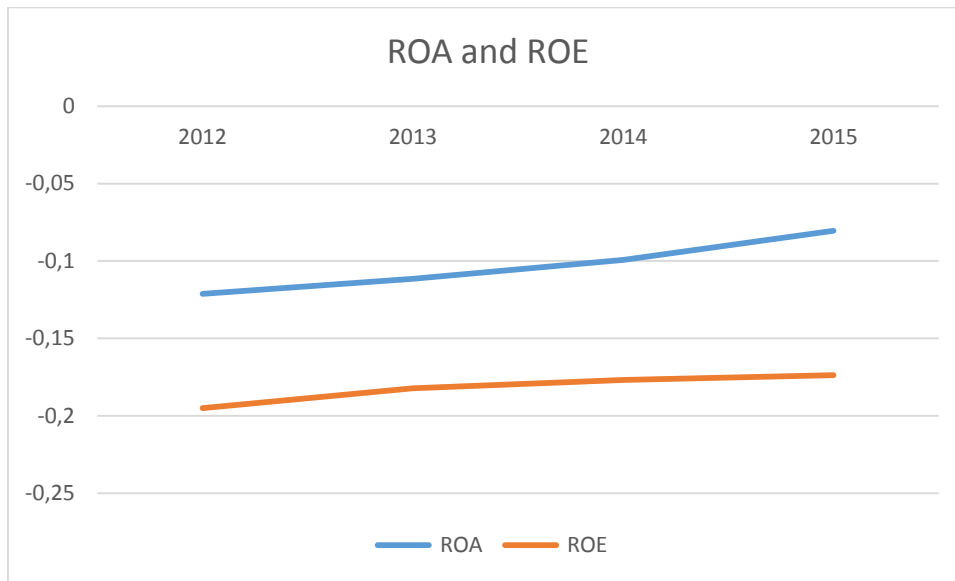


Source: Own elaboration.

Note that the curve is positive and each year this percentage is lower, therefore the shareholder gets less lost. So we have an encouraging fact, since if the trend continues, the society could get benefits in the future although the change seen in the last 4 years is slow.

With the result of the asset and shareholder returns, we will compare both ratios. This comparison leads us to determine the most appropriate financial structure for the company's growth. It is what is known as a leverage effect. As you can see in graph 16, the ROA is better than ROE, so with this statement we know already, that the company has a negative leverage. In situations as well, the company could increase its debt only in case you have ability to increase their sales prices and manage their assets efficiently.

Graphic 16: Comparison ROA and ROE



Source: Own elaboration.

The following analysis we will perform, is the in-depth study of the ROE will analyze it with greater expense with their most significant determinants. According to the following formula:

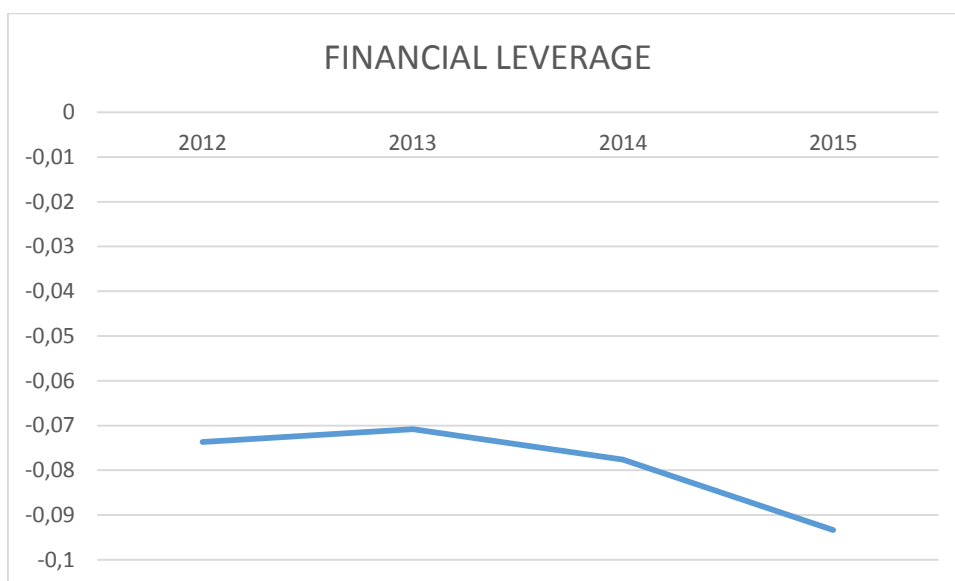
$$ROE = ROA + \frac{LIABILITY}{NET EQUITY} \times (ROA - FC)$$

$$ROE = ROA + LEVERAGE RATIO \times MARGIN OF LEVERAGE$$

$$ROE = ROA + FINANCIAL LEVERAGE$$

After the breakdown of the profitability of the shareholder, we will focus on leverage, since the ROA has been analysed previously.

Graphic 17: Evolution of financial leverage



Source: Own elaboration.

In the graph we reinforce the thesis above commented that the company has a negative leverage, that is the effect that introduces the indebtedness on the profitability of the capital.

As you can see in the graphic 16, the ROA is lower than the interest that is to say, the rate of return that is reached on the assets of the company, is less than the rate of interest to be paid the funds obtained in the loans. This creates a negative financial leverage and translates with that obtaining funds from loans is unproductive.

To be ROA less to interest, the margin of leverage increases and creates a decrease in the ROE. As can be seen in table 3, over the years the result of ROA improves, as well as the cost of the debt, therefore the margin of leverage suffers an improvement in these years.

For the part of the degree of leverage, you can check with the passage of the years this is near, to be a value 100%. This means, that the company is virtually financed by its own funds the debts of the enterprise are similar to equity of AB-Biotics.

Analyzed the two determinants that form the financial leverage, we can conclude that the improvement produced by the ROA and the cost of debt is not enough to create a positive financial leverage or improve your outcome.

So the financial profitability is suffering a positive change but the process will be slow since the company has managed to improve all aspects that form the ROE except the degree of indebtedness which has worsened in recent years.

Data table 3: Descomposition of ROE

	2012	2013	2014	2015
ROA	-12,13%	-11,14%	-9,93%	-8,04%
ROE	-19,50%	-18,22%	-17,69%	-17,38%
Effective cost = i	1,10%	2,91%	2,44%	1,91%
Margin of leverage = ROA-i	-13,23%	-14,05%	-12,37%	-9,95%
Leverage ratio	55,70%	50,40%	62,75%	93,78%
Financial leverage	-7,37%	-7,08%	-7,76%	-9,34%
Check ROE = ROA + financial leverage	-19,50%	-18,22%	-17,69%	-17,38%

Source: Own elaboration

6. CONCLUSION

The work was intended to provide a general overview of the company with which after a deep study understanding on the situation which is AB-Biotics. The company was presented as a venture capital company that is listed on the MAB and its main objective is the expansion, this means, the internationalization. In order to achieve this result, the society sought new shareholders to increase its capital and to invest, as well as new agreements in order to increase your international sales.

With the various aspects discussed, the company has a turning point marked in 2013, where activity was reduced, but above all was because the Organization entered a new strategic shift at the company. This was the modification of the internal structure, which was based on 2 business areas focus which resulted in a positive development for the company. This turning point was the beginning of a massive process of expansion and growth of the company

We have found a company with sufficient liquidity and solvency to respond to third parties, even improved the utilization of idle resources although if continued negative trend, the company could face potential economic problems.

On the other hand, the economic and financial profitability suffered derived improvement both from an increase of the activity of the company and what this entails improving the margin, profit or rotation. But the highlight of these results, before a noticeable improvement is considered that the degree of leverage should be revised by the company. Since increasingly has one greater data and impact on the profitability of the company. To improve this, society should change its way of Finance since their funding is basically made of own funds, and if this trend is not amended the company could suffer in the future a decapitalization.

In conclusion, this work has been detect deficiencies of the company which is very helpful when making decisions for AB-Biotics

7. BIBLIOGRAPHY

Oliver, D. (2015). *La biotecnología en Europa: crecimiento continuo* [online] available from: < <http://blog.capitalcell.net/biotecnologia-europa-crecimiento-continuo/> > [21 January 2017]

Barredo, A. (2015) *La biotecnología española iguala por primera vez al turismo en facturación* [online] available from: <<https://hipertextual.com/2016/07/biotecnologia-informe-asebio>> [21 January 2017]

AB-Biotics. (2017) *About us* [online] available from: <<http://www.ab-biotics.com/about-us/overview.html>> [2 February 2017]

Delgado, C. (2010) "AB-Biotics, la primera firma catalana del MAB desde hoy" *El país* [online] 20 July. available from: <http://economia.elpais.com/economia/2010/07/20/actualidad/1279611173_850215.html> [16 February 2017]

UAB, (2011) *La Junta de Accionistas de AB-Biotics aprueba la adquisición de Quantum Experimental* [online] available from <<http://www.uab.cat/web/noticias/detalle-de-una-noticia-1099409749848.html?noticiaid=1302589960016>> [5 March 2017]

8. ANNEX:

Annex 1:

	ANC	AC	PN	PNC	PC	PYG		2015	2014	2013	2012
ACTIVO											
ACTIVO NO CORRIENTE											
I								6.718.465	4.232.961	4.072.235	4.282.345
II								395.441	434.559	433.318	490.657
III								n.d.	n.d.	n.d.	n.d.
IV								6.000	262.961	333.538	8.938
V								338.052	1.917.900	3.323.764	2.728.018
VI								3.293.988	3.326.841	2.596.149	1.897.186
VII								n.d.	n.d.	n.d.	n.d.
ACTIVO CORRIENTE											
I								n.d.	n.d.	n.d.	n.d.
II								318.459	323.814	259.593	235.090
III								1.979.654	1.749.301	743.548	1.490.405
IV								11.860	36.072	14.980	276.989
V								36.129	708.696	1.825.100	359.622
VI								104.359	88.042	85.461	38.188
VII								604.536	1.038.224	1.273.959	4.754.569
TOTAL ACTIVO											
13.806.943											
PATRIMONIO NETO Y PASIVO											
PATRIMONIO NETO											
A1								6.824.382	8.323.768	9.654.694	10.569.566
A2								n.d.	n.d.	n.d.	n.d.
A3								300.595	351.580	293.088	67.249
PASIVO NO CORRIENTE											
I								n.d.	n.d.	n.d.	n.d.
II								3.591.128	3.584.166	3.590.368	4.183.017
III								n.d.	n.d.	n.d.	n.d.
IV								100.199	117.193	97.696	n.d.
V								n.d.	n.d.	n.d.	n.d.
VI								n.d.	n.d.	n.d.	n.d.
VII								n.d.	n.d.	n.d.	n.d.
PASIVO CORRIENTE											
I								n.d.	n.d.	n.d.	n.d.
II								n.d.	n.d.	n.d.	n.d.
III								1.002.643	817.691	629.356	409.132
IV								n.d.	n.d.	n.d.	7.044
V								1.975.930	891.173	696.443	1.326.000
VI								12.066	33.800	n.d.	n.d.
VII								n.d.	n.d.	n.d.	n.d.
TOTAL PATRIMONIO NETO Y PASIVO											
13.806.943											

Annex 2:

CUENTA DE PÉRDIDAS Y GANANCIAS	2015	2014	2013	2012
Operaciones continuadas				
1. Importe neto de la cifra de negocios	3.450.467	1.632.794	818.682	1.641.606
2. Variación de existencias de productos terminados y en curso de	n.d.	n.d.	n.d.	n.d.
3. Trabajos realizados por la empresa para su activo	1098626	745.776	448.716	1.080.402
4. Aprovisionamientos	-1.801.697	-1.042.563	-793.270	-1.411.851
5. Otros ingresos de explotación	245.081	1.008.325	925.916	376.530
6. Gastos de personal	-1.844.678	-1.736.011	-1.465.586	-1.825.801
7. Otros gastos de explotación	-1.830.669	-1.728.763	-1.567.607	-2.188.395
8. Amortización del inmovilizado	-773.455	-770.325	-698.538	-533.925
9. Imputación de subvenciones de inmovilizado no financiero y otras	114.678	128.498	47.187	n.d.
10. Excesos de provisiones	n.d.	n.d.	n.d.	n.d.
11. Deterioro y resultado por enajenaciones del inmovilizado	n.d.	n.d.	-180.000	n.d.
12. Diferencia negativa de combinaciones de negocio	n.d.	n.d.	n.d.	n.d.
13. Otros resultados	-10.136	10.761	248.102	-319
RESULTADO DE EXPLOTACION	-1.351.783	-1.751.508	-2.216.398	-2.861.753
14. Ingresos financieros	22.632	53.788	64.724	19.107
15. Gastos financieros	-182.724	-189.853	-208.432	-93.004
16. Variación de valor razonable en instrumentos financieros	n.d.	n.d.	-28.339	1.936
17. Diferencias de cambio	21.555	47.785	-14.821	-5.138
18. Deterioro y resultado por enajenaciones de instrumentos financieros	175.802	-434.995	-125.958	-113.004
19. Otros ingresos y gastos de carácter financiero	n.d.	n.d.	n.d.	n.d.
RESULTADO FINANCIERO	37.265	-523.275	-312.826	-190.104
RESULTADO ANTES DE IMPUESTOS	-1.314.518	-2.274.783	-2.529.224	-3.051.857
RESULTADO DEL EJERCICIO PROCEDENTE DE OPERACIONES CONTINUADAS	-1.238.041	-1.534.795	-1.812.918	-2.073.879
Operaciones interrumpidas				
RESULTADO DEL EJERCICIO	-1.238.041	-1.534.795	-1.812.918	-2.073.879

Annex 3:

PATRIMONIO NETO	7.124.977	8.675.348	9.947.782	10.636.815
A1 Fondos propios	6.824.382	8.323.768	9.654.694	10.569.566
I Capital	479.809	479.809	479.809	453.675
1. Capital escriturado	479.809	479.809	479.809	453.675
2. (Capital no exigido)	n.d.	n.d.	n.d.	n.d.
II Prima de emisión	14.351.559	14.340.297	14.063.160	12.913.525
III Reservas	30.175	30.175	30.175	30.175
1. Legal y estatutarias	4.394	4.394	4.394	4.394
2. Otras reservas	25.781	25.781	25.781	25.781
3. Reserva de revalorización	n.d.	n.d.	n.d.	n.d.
4. Reserva de capitalización	n.d.	n.d.	n.d.	n.d.
IV (Acciones y participaciones en patrimonio propias)	-1.276.093	-1.003.486	-930.218	-652.495
V Resultados de ejercicios anteriores	-5.523.027	-3.988.232	-2.175.314	-101.435
1. Remanente	n.d.	n.d.	n.d.	n.d.
2. (Resultados negativos de ejercicios anteriores)	-5.523.027	-3.988.232	-2.175.314	-101.435
VI Otras aportaciones de socios	n.d.	n.d.	n.d.	n.d.
VII Resultado del ejercicio	-1.238.041	-1.534.795	-1.812.918	-2.073.879
VIII (Dividendo a cuenta)	n.d.	n.d.	n.d.	n.d.
IX Otros instrumentos de patrimonio neto	n.d.	n.d.	n.d.	n.d.
A2 Ajustes por cambios de valor	n.d.	n.d.	n.d.	n.d.
I Activos financieros disponibles para la venta	n.d.	n.d.	n.d.	n.d.
II Operaciones de cobertura	n.d.	n.d.	n.d.	n.d.
III Activos no corrientes y pasivos vinculados, mantenidos para la venta	n.d.	n.d.	n.d.	n.d.
IV Diferencia de conversión	n.d.	n.d.	n.d.	n.d.
V Otros	n.d.	n.d.	n.d.	n.d.
A3 Subvenciones, donaciones y legados recibidos	300.595	351.580	293.088	67.249

Annex 4:

ANÁLISIS DE LAS CUENTAS	2015	2014	2013	2012
FONDO DE MANIOBRA	64.358,0	2.201.485,0	2.876.842,0	5.412.687,6
RATIO DE LIQUEDEZ	1,022	2,263	3,170	4,107
RATIO DE ENDEUDAMIENTO A CORTO	41,97%	20,09%	13,33%	16,38%
RATIO DE ENDEUDAMIENTO A LARGO	51,81%	42,67%	37,07%	39,33%
RATIO DE ENDEUDAMIENTO	93,78%	62,75%	50,40%	55,70%
TASA IMPOSITIVA MEDIA = t	0,300	0,300	0,300	0,300
PERIODO MEDIO DE ALMACENAMIENTO	64,516	113,367	119,444	60,777
PERIODO MEDIO DE COBRO A CLIENTES	158,355	296,331	412,313	183,728
PERIODO MEDIO DE PAGO A PROVEEDORES	152,387	209,343	197,450	43,707
PERIODO MEDIO DE MADURACION FINANCIERO	0,684	0,511	0,371	0,179
RENTABILIDAD DEL ACTIVO (ROA O ROI)	-8,04%	-9,93%	-11,14%	-12,13%
MARGEN	-32,17%	-85,86%	-203,62%	-122,37%
ROTACIÓN	24,99%	11,56%	5,47%	9,91%
COMPROBACIÓN ROA = MARGEN x ROTACIÓN	-8,04%	-9,93%	-11,14%	-12,13%
RENTABILIDAD FINANCIERA = ROE	-17,38%	-17,69%	-18,22%	-19,50%
COSTE EFECTIVO DE LA DEUDA TOTAL = i	1,91%	2,44%	2,91%	1,10%
MARGEN ECONÓMICO FINANCIERO = ROA-i	-9,95%	-12,37%	-14,05%	-13,23%
ENDEUDAMIENTO	93,78%	62,75%	50,40%	55,70%
APALANCAMIENTO FINANCIERO	-9,34%	-7,76%	-7,08%	-7,37%
COMPROBACIÓN ROE = ROA + APALANCAMIENTO FINANCIERO	-17,38%	-17,69%	-18,22%	-19,50%