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Equity Valuation

DIA – Distribuidora Internacional de Alimentacion, SA

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Abstract

The purpose of this Master thesis is to demonstrate a plausible and effective valuation for DIA, SA. This is a very well-known Spanish retailer, mainly focused in grocery and domestic products. The performed valuation aims to evaluate the company in the 1st January, 2016.

In order to complete this Thesis, all the materials and subjects learned during this master program played a fundamental role, especially “Firm Valuation”, whose topics matched exactly with the contents applied here.

In order to perform the Valuation of DIA, and after reviewing relevant literature about the subject, three major methods were chosen. DCF (Discounted Cash-Flows), APV (Adjusted Present Value) and Multiples Valuation were the models applied.

The final results were then compared with an equity research from a leading investment bank, JP Morgan. This comparison was an important mark, as by applying the similar methods, the results found in this thesis were confirmed.

O objectivo desta dissertação de mestrado é demonstrar uma avaliação plausível e efectiva para a DIA, SA. Esta empresa é um distinta retalhista espanhola, principalmente focada na mercearia e produtos nacionais. A avaliação efectuada tem como objetivo avaliar a empresa em 1 de janeiro de 2016.

Para concluir esta tese, todos os materiais e conteúdos aprendidos durante este programa de mestrado desempenharam um papel fundamental, especialmente a cadeira de "Firm Valuation", cujos temas corresponderam exatamente com o conteúdo aqui aplicado.

A fim de realizar a Avaliação da DIA, e depois de rever a literatura relevante sobre o assunto, foram escolhidos três métodos principais. DCF (Discounted Cash-Flows), APV (Adjusted Present Value) e Múltiplos de avaliação foram os modelos aplicados.

Os resultados finais foram então comparados com uma Equity Research de um banco de investimento líder, JP Morgan. Esta comparação foi um marco importante, porque através da aplicação de métodos semelhantes, foram confirmados os resultados encontrados nesta tese.

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List of Contents

Literature Review	5
Introduction to Valuation.....	5
Valuation Steps.....	6
Valuation Methodologies.....	7
Discounted Cash-Flow Method.....	8
Relative Valuation.....	14
Final Comments about Valuation.....	17
Industry Overview	18
Retail Sector Overview.....	18
Iberian Zone.....	18
Emergent Market Zone.....	20
Main Players.....	24
Perspectives for the Future.....	25
Company Overview	28
General Overview.....	28
Business Segments and Historical Evolution.....	28
Iberia.....	28
Emergent Markets.....	28
Strategies and Perspectives for the future.....	31
Valuation of DIA	34
Introduction.....	34
Segments of Analysis.....	34
Discounted Cash-Flow.....	34
DCF Formulations.....	46

Adjusted Present Value.....	47
Sensitivity Analysis.....	49
Relative Valuation.....	52
Enterprise Value Multiples.....	53
Equity Value Multiples.....	54
Conclusion on Multiples.....	55
Final Comments about DIA’s Valuation.....	56
Appendixes.....	58
Reference List.....	77

Literature Review

Introduction to Valuation

This paper has a simple word that completely sums up the content of this thesis. Value and the right skills to achieve it are the main drivers that should be evaluated to understand how much is worth any company (Koller, Goedhart & Wessels, 2010). The main objective of this paper is discovering a fair valuation for the chosen company but before doing it, it is relevant to understand why this process is being made. By doing the exercise of valuating a company it is possible to identify the main sources and factors that will increase or decrease the added value of the firm. Valuation achieves one of the most important roles in the financial area as it will be the main tool to determine the path to follow in the future by all the stakeholders of a company (Koller, Goedhart & Wessels, 2010).

Valuation is a complex science as there are many possible approaches and many answers to the same problem. From the simplest one to the more complex ones there is a vast list of available models, these are the tools that professionals use to accomplish valuation tasks (Damodaran, 2005). Many different models were already developed and it would be acceptable that such a great wide of approaches could take to a great variety of results and different valuations. However, Young et al (1999) claim how irrelevant it is the chosen model as they all should take us to identical results if the assumptions taken are similar in all different chosen models. According to Luehrman (1997) there are three factors that become fundamental when performing a valuation exercise. Also according to this author, cash, risk and timing have a relevant importance as these are the main responsible for the different results in all the applied valuation processes.

To sum up and conclude this introduction it is clear that the concept of Value has a relevant role in valuation, but as in all other sciences it is important to explore its operative side and for that it is convenient to mention Fernandez's (2007) work. He defined eight factors that explain the reasons for valuating a company, they are:

1. Processes of purchases and sales of firms, where old shareholders need to find a fair value to ask and new shareholders need a fair value to bid.
2. Rating of firms list in the stock exchange, in order to obtain the most appropriate recommendations in what to buy, sell or hold

3. Initial Public Offerings. It is essential to know deeply the intrinsic value in order to determine the most plausible price for the new outstanding shares.
4. Way of comparison with other different type of assets.
5. Remuneration based on results, where salaries, wages or other rewards are based on the value added by the top management
6. “Identification of Value drivers”, where valuation plays the role of finding them and contribute to optimize them.
7. “Strategic decisions” in the company’s core business, as its valuation will be a fundamental tool to evaluate the need of deeper financial activities, such as increasing or reducing the amount of debt
8. Planning of the future, future decisions of growing, expanding or reducing business will require the presence of a deep and extensive valuation of the firm.

Valuation Steps

Valuation as any other process follows a path and the way this path is done will determine the validity of the results found. This is a very abstract approach to the problem of valuation so Stowe et al. (2007) defined a clear list of five steps that can resume and simplify the complex procedure of valuating to one word in each step:

- “Apprehend” the core business of the company;
- “Previser” the firm evolution;
- “Choosing” a suitable model;
- “Transform” our prevision into a valuation;
- “Decide”, whether to invest or not;

Following these easy steps it is believed by Stowe et al. that it is possible to achieve a good result. Anyway, as stated before, every outcome will depend on the assumptions made to solve the valuation problem. The rule says that when consistent assumptions are taken, consistent results will be found.

Valuation Methodologies

It is time to focus on the possible methods to value a company. When performing a valuation, the analyst must have present that he will not find the true value of the firm, but a close value to the real value of the firm, so his main question to himself won't be if he is right but yes how far is he from the real value. Again assumptions will play a main role. The same question appears when choosing a model by its level of complexity. Sometimes a simple model is the perfect complement to find a good valuation as complex ones may require a large number of variables dependent from the assumptions taken by the professional which in most times corrupts the chosen model. (Damodaran, 2011)

It is widely known that the most common applied method is Discounted Cash Flow. Here the flows of cash are discounted until the maturity of the firm at a rate that reflects its risk. This overall value is then summed to the present value of the terminal value, which represents all the future gains when a company is in steady state. (Copeland, Koller and Murri, 2000)

Apart from DCF there are plenty other models to choose from and it is possible to aggregate them in 4 groups as most of them share common characteristics. (Damodaran, 2006 &

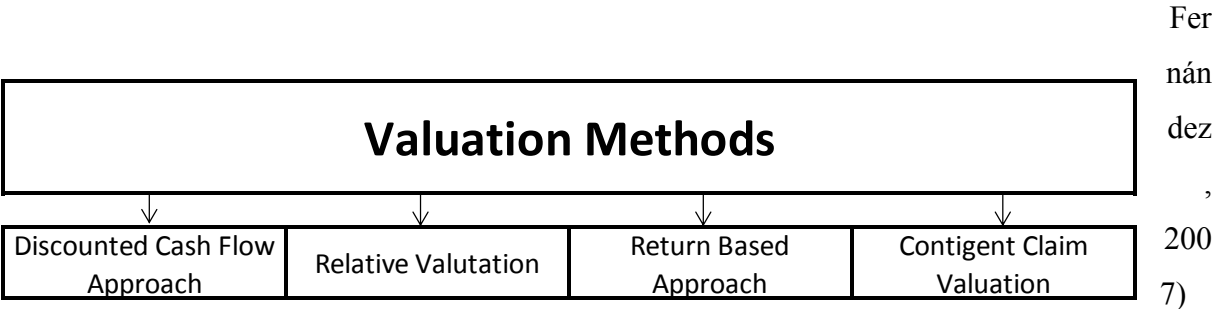


Figure 1. Valuation Methods
Source: Damodaran (2002) & Fernández (2007)

As demonstrated by Fernandez and Damodaran these are the most common methods used by companies across time and for having a wide knowledge about valuation it is useful to know deeply each method and what the background that supports them. Having some tips about buying or selling is not the only objective of valuation as understanding the roots of increases and decreases of value becomes a main objective. (Fernandez, 2007)

- **Discounted Cash Flow Approach**

An introduction and historical context of this methodology is available in the appendix.

Discounted Cash Flow Method states clearly, as I was referred before that the value of a company results from the present value of its future cash flows. The present value comes from discounting to the present, the expected cash flows at a certain level of risk, called cost of capital. (Frykman & Tolleryd, 2003) This risk can be understood as the opportunity cost of the investment as it should reflect the return of the second best possible investment apart from the one we have chosen.

$$V = \frac{CF_1}{1+k} + \frac{CF_2}{(1+k)^2} + \frac{CF_3}{(1+k)^3} + \dots + \frac{CF_n + VR_n}{(1+k)^n}$$

CF_i = cash flow generated by the company in the period i.

V_n = residual value of the company in the year n.

k = appropriate discount rate for the cash flows' risk.

Source: Fernandez (2002)

In the DCF approach there are two different possible paths to achieve the same result, the firm view or assets perspective and the equity perspective but most fit within two categories: Firm Value and Equity Value. For the first group, free cash flows to the firm (FCFF) are used and the WACC is used as return rate. On the other hand, for the equity holder perspective, free cash flows to the equity (FCFE) are the main tool and Cost of equity is used as the rate of return.

For the analysis of deeper financial processes it is relevant to introduce a new approach. Adjusted Present Value was not so published, but ultimately has grown in importance and established itself as an essential financial tool. This is basically a version of the DCF applied to every source of cash flow that a company can generate. It is widely known to be a method that provides a translucent general view of the company. (Luherman, 1997)

There is also an alternative method that computes the value of the company in the present value of future dividends delivered to the shareholders. However this won't be a good

approach to discuss as the chosen firm for this thesis is experiencing an expansion period where dividends assume a residual value.

First approach: Enterprise perspective – Free Cash Flow to the Firm

“Enterprise valuation values the entire business, with both assets in place and growth assets” (Damodaran, 2006). In this approach, apart from FCFF also the discount rate plays here a relevant role. In this case it is called WACC and reflects the overall risk of the firm, taking into account its capital structure, where debt and possible tax shields are included.

DCF model can be computed as it is shown:

$$Equity\ Value = \sum_{t=1}^n \frac{FCFF_t}{(1+WACC)^t} - Net\ Debt$$

As it is easy to observe this formula consists in a mathematical series, and, as Damodaran (2006) states “one of the core strengths of this model is its simplicity related to the fact that the impact of financing mix changes will be captured entirely by the discount rate rather than through the cash flows”. As it is possible to observe, this model uses two important concepts in finance, Free Cash Flow to the Firm (FCFF) and WACC whose discussion is very relevant in this context.

Stowe et al. (2007) proposed a very interesting definition for FCFF, according to his paper it can be explained as the “cash flow available to the company’s suppliers of capital after all operating expenses have been paid and necessary investments in working capital and fixed capital have been made.”

To better understand the nature of this concept it is useful to look at its formula:

$$FCFF = OCF - E - T - \text{Change in NWC} - \text{Change in Investments}$$

Where

OCF = Operating Cash Flow

E = Expenses

T = Taxes

NWC = Net Working Capital

Source: static-ssl.businessinsider.com

This formula follows the usual process to compute cash flow where taxes, expenses and the variation in net working capital and investments are subtracted from the operating cash flow.

Just as a note, it is relevant not to forget that a change in NWC and a change in investments are a way of observing if the company is passing by a moment of expansion, recession or steady state.

The other relevant concept relevant to discuss is the Weighted Average Cost of Capital, also known as WACC. This measure represents a weighted average between the percentage of equity and its cost of capital and the percentage of debt and its respective cost of debt. It is also convenient to take into account the presence of any tax shields and this model considers that. Fernandez in his literature also referred to this as the “appropriate rate, since we are valuing the company as a whole (debt plus equity), we must consider the required return to debt and the required return to equity in proportion to which they finance the company”.

There are many approaches and presented formulas for the computation of the WACC, but this is the most widely used:

$$\text{WACC} = \frac{E}{D + E} (r_e) + \frac{D}{D + E} (r_d)(1 - t)$$

Where:
E = market value of equity
D = market value of debt
 r_e = cost of equity
 r_d = cost of debt
t = corporate tax rate

Source: classconnection.s3.amazonaws.com

Summing up it is possible to arrive to the conclusion that FCFE is not a direct method as it computes the value of the firm. Instead of that, as it stated by Copeland, Koller and Murrin (2000), it is computed the present value of operating free cash flows subtracted by the payables and receivables from the firm in cash from the firm’s creditors. As the authors of the article stated, if the discount rates correctly demonstrates the level of risk of each one of the chains of income, then FCFE (after deducting net debt) should register an equal final number for the equity as the exercise of discounting the cash flow to shareholders.

Second approach: Equity holder perspective – Free Cash Flow to the Equity

Due to the possible complexity of the target company, that can come from uncontrolled debt variations, issuing policies or irregular taxations, the FCFE may not be the best answer to the

exercise of performing a valuation. As Luehrman (1997) pointed “the more complicated a company’s capital structure, tax position, or fund-raising strategy, the more likely it is that mistakes will be made when using WACC’s”. Also Damodaran (2009) referred to this issue stating that “financial service firms are best valued when using equity methods, rather than enterprise valuation models”.

In the opposite side to the free cash flow to the firm there is the free cash flow to the equity (FCFE), which corresponds to the outflows targeted to the shareholders of a firm, as it is demonstrated by the following formulas:

$$\begin{aligned}
 FCFE &= FCFF - Int(1 - TaxRate) + NetBorrowing \\
 FCFE &= NI + NCC - FCInv - WCInv + NetBorrowing \\
 FCFE &= CFO - FCInv + NetBorrowing
 \end{aligned}$$

Source: <http://image.slidesharecdn.com/equityvaluation>

Since we are dealing now with FCFE, it is rational to use as discount rate, a rate that reflects only the risk allocated to the equity, which in this case it will be the cost of Equity (Ke). To conclude the valuation, it is possible now to proceed to the formal formula, which, in this case, will be equal to:

$$Equity\ Value = \sum_{t=1}^n \frac{FCFE_t}{(1 + Ke)^t}$$

Third approach: Adjusted Present Value

Although debt is an obligation that brings a big increase in the level of risk, responsibilities (managing the capital structure more carefully) and costs (interests and fees), it is a financial tool that can bring big advantages to the company. First of all, debt is the main responsible for the leverage of firms, which is an essential tool for its growth and expansion. Apart from this, expenses with interests of debt can be considered by the law as tax-deductible expenses and

this may open place to tax shields. Tax shields play a major role in finance as they represent most of the times very high values in liquidity that are fundamental for the well-being of companies.

Using Adjusted Present Value (APV) contributes to determine an appropriate value for every year's tax shields by separating the structure of the firm into two parts. Damodaran (2006), in his research stated that "The adjusted present value (APV) approach separates the effects on a firm's value of debt financing from the value of the assets of a business", also Luehrman (1997) has an interesting opinion about this subject as he affirms that "*APV is the result of additivity, used to break a problem into pieces that make managerial sense.*". By saying this, the conclusion is that APV dismantles the firm into easy parts to analyze, as it acts in a pyramid scheme and it adds more complex specifications to the model with time. Damodaran (2006) also says that "in an APV valuation the company's value is computed by first considering a no debt scenario and then adding both the benefits and the costs of borrowing".

Modigliani and Miller (1963) introduced the APV model for the first time, where the tax shields from debt were detached with the help of the interest rate as the discount rate. Luehrman also defends this approach. He states that more important than discovering the numerical nature of the valuation targets, is to know how they were generated.

The APV approach can then be summarized by the following formula:

$$\text{Value of Levered Firm} = \text{Value of Unlevered Firm} + \text{PV of Tax Benefits of debt} - \text{PV of Bankruptcy Costs}$$

Source: images.slideplayer.com/16/5215970/slides/slide_86.jpg

Observing the formula it is possible to understand how the firm parts are separated into independent pieces that should be analyzed individually.

Value of the Unlevered Firm

This is the value of the firm when it is 100% equity financed as it is equal to:

$$V_U = \left(\frac{FCF_1}{(1+r_{sU})^1} + \frac{FCF_2}{(1+r_{sU})^2} + \dots + \frac{FCF_N}{(1+r_{sU})^N} \right) + \frac{\left(\frac{FCF_N(1+g)}{r_{sU}-g} \right)}{(1+r_{sU})^N}$$

Source: chegg-html-solutions.s3.amazonaws.com/9781111972202/8014-22-1MC-i11.png

As it is possible to observe in the formula, the value of the unlevered firm is achieved by discounting all the future cash flows to the firm by the returns on assets (designated in the formula as “rsu”). Note that to achieve the value of the terminal value it is necessary to find the cash flow of the next period, so a growth rate is needed.

Present Value of Tax Shields:

This is still a subject that creates discussion between authors as there are two possible main approaches that generally take to different results, which are discounting the TS by the cost of debt or by the unlevered cost of assets. Discounting by the return on assets (cost of 100% equity financed firm) would make all the sense as the future possibility of receiving back the tax shields would depend on how the company is able to maintain itself and that is reflected in the return on assets. The first trial to solve this problem was presented by Miles and Ezzell (1980). They targeted this solution to companies that possess a clear debt-to-equity ratio goal and according to them tax shields should be discounted with the cost of debt for year 1 of analysis and the following years it should be used the unlevered cost of equity of the assets.

On the other hand Fernandez (2004) proposed a simpler approach to this issue saying that “the value of tax shields should be equal to the tax rate times the value of debt” but it should be remembered, as Damodaran states that “tax shield’s value should be equal to the difference between the value of the levered firm, incorporating tax benefits, and the value of the unlevered firm”. Fernandez’s approach is a very simple one as it assumes that the interest paid is always equal to the cost of debt. The process to reach to this conclusion is shown by:

$$\sum_i \frac{Dr_D T}{(1 + r_D)^i} = \frac{Dr_D T}{r_D} = DT$$

Source: upload.wikimedia.org/math/0/1/a/01a57ed31b99a3710b578afa7d6b92d2.png

Nowadays, the widely applied choice to compute the present value of tax shields discounts the tax shields flows with the respective cost of debt. Although it might be rational thinking that only the return on assets should be used to discount cash-flows as it reflects the possibilities of real success of the company, the truth is that the cost of debt is adjusted by creditors to match the level of risk of the company so this can also be the most rational choice to discount the cash flows.

$$TxSh_j = \sum_{t=j+1}^m \frac{D_{t-1}k_D T}{(1+k_D)^t}$$

Source: scielo.org.co/img/revistas/eg/v19n88/n88a03e31.jpg

This will be the chosen method to value tax shields during this thesis.

Present Value of Bankruptcy Costs

If not correctly managed and controlled, debt can be the main responsible for bankruptcy and moves gigantic cost as there are many agents involved in the process. Some authors, like Fernandez, claim that bankruptcy costs calculation are included in the computation of the present value of the tax shields. In the opposite side, Damodaran states that apart from computing the costs of debt, there is still the expected bankruptcy cost.

To try to compute the value behind the concept Damodaran proposed the following formula:

$$\text{PV of Expected Bankruptcy Costs} = \text{Probability of Bankruptcy} \times \text{PV of Bankruptcy Costs}$$

Source: images.slideplayer.com/16/5215970/slides/slide_84.jpg

Since bankruptcy is something that rarely happens, apart from its cost it is needed to consider the probability to happen a case like this. This concept generates a big discussion around authors as defining a probability for this is not a straight forward step. On the other hand, there are quantifiable bankruptcy costs that can be measured like lawyers' fees or payments to the state but there are also an uncountable number of other costs that cannot be measured, such as, the impacts on the market, market shares gains and losses or expectations.

Relative Valuation

Relative Valuation is the designation found to characterize the multiples valuation as this analysis will be the result of the comparison of the company with a group of similar companies in terms of capital structure, results, core business or industry (Peer Group).

DCF requires big efforts and it could be time consuming. On the other hand, the demand for this type of valuation is very high, so performing a consistent valuation within the time and budget available is, sometimes, an impossible mission. This is the opinion of Lie and Lie (2002) that explain this, why firms are changing their valuation standards from the DCF approach to the Multiples Approach. Fernandez (2001), in his work, states that this method should have a complementary role or used as a secondary approach in order to confirm results already achieved. This method can be seen as a way of detecting mistakes in the previous method attempted, as the comparison between the two results will be fundamental.

Milicevic (2009) defends this method and defined some real advantages in relation to the DCF. The reduced number of needed assumptions is a very positive aspect of this model, as a wrong assumption may mean the invalidity of the developed model. Also, to perform a multiples valuation, the information needed is much easier to find as a simple newspaper may be the tool enough to perform a good valuation.

Summing up it is important to quote Damodaran when he says that “if the market is correct DCF and multiples valuation may, on average, converge”. This will give a lot of credit to Multiples valuation as it puts it in the same level of efficiency as DCF, which requires more resources and a much more effort to perform.

Peer Group

As it was stated, the Peer Group consists in a group of companies chosen to complement the analysis, and the choice of which companies to choose is a very important subject.

In Damodaran’s work (2006) there are three important points that will define a good peer company. In the first place, both firms should have similar level of cash flows to ensure that the volume of business is similar also. The second condition is the growth potential as it is not possible to compare in real valuation terms a start-up and a mature company even if they have an equal business volume. Finally it is essential to mention risk because this concept plays a fundamental role in valuation as it is not possible to compare a riskless company like a state energy company with some new .com start-up. Some authors state that it is enough to belong to the same industry or sector but Damodaran argues that when increasing too much the peer group, the list of firms become too different between themselves, which would compromise the analysis.

Market Multiples

A vast list of multiples is available for the valuation of a firm but understanding and analyzing the business, sector or segment from where it comes from is fundamental to decide which are the best market multiples to perform a correct exercise of valuation.

Market Multiples Type	Multiple
Enterprise Value Multiples	EV/EBITDA EV/EBIT EV/SALES
Equity Value Multiples	Price-to-earnings (PER) Price-to-Cash Flow ratio (PCF) Price-to-Book Value (PBV)

Source: Damodaran (2006)

As it is possible to see in the previous table, Damodaran divided the market multiples into two different groups according to its nature and the desired results. In this way, there are two different paths to choose when performing a multiples valuation, whether valuing the Enterprise Value of the company or valuing its Equity Value.

Enterprise Value Multiples

Enterprise Value Multiples are considered by Goedhart and Koller (2005) to provide a better estimation about the desired valuation result than the Equity Value Multiples as these ones can be easily manipulated. Changes in the capital structure of the target firm will not affect the results of an enterprise value multiple. Relating, for instance, to the EBITDA, since this is the closest accounting value to the real cash flow of the firm, the provided results will be much closer to the real numbers and this is one of the main reasons why Fernandez (2008) states that, apart from PER Multiple, EBITDA is the most spread valuation multiple in financial multiple valuation.

Equity Value Multiples

In his paper, Goedhart et al (2005) affirms that Price-Earnings Ratio (PER) is the most widely applied multiple in the valuation analysis but it has a powerful drawback which is being affected by the capital structure variations. On the other hand, if a company has negative results, this method will bring some meaningless results and the same applies if the

company is crossing a process of increasing its debt (important changes in the capital structure). In opposition to these previous assumptions, Liu et al (2002) proved in an empirical exercise that some equity value multiples follow a tendency and that forward earnings present more plausible results than the revenue and the book value of equity whose estimations are not trustful.

Further detail on this topic and regarding alternative approaches to Multiples Valuation (Cyclical Adjusted Equity Multiples) are available in the appendix.

Summing up, multiples valuation approach presents itself as a powerful tool to analysts as, comparing with some other methods (like DCF or APV) it is much less time and resources consuming. On the other hand, it can be applied as the primary method of valuation or as the a secondary one, which will be helpful to confirm and submit results as the opportunity cost of applying this approach is very low.

To complement this overview, alternative Valuation methods not applied in this thesis (Return Based Valuation and Contingent Claim Valuation) are explain on the appendix.

Final comments about Valuation

The goal of this literature review was to present a rational line over the main concepts and methodologies of valuation. Throughout this analysis, it was followed the approach to valuation from Damoradan where the methods were divided into four different segments of analysis: DCF, which is the most spread method, the multiples valuation, known to be the easiest to apply, option theory and the economic value added.

After this literature review it would be expected that the famous question “What model should we use?” would be clearly answered but the reality is away far from this assumption. Once again Damodaran as the perfect answer for this when he says that “there is no such thing as a perfect valuation model”. By this it is easy to understand that a valuation of a firm, project or any asset consists only in an estimation of the real value if the right assumptions are taken. It makes sense to use more than one valuation method as the central tendency of results will be the best approximation to the real value. Luehrman also supports this assumption by stating that “most companies use a mix of approaches to estimate value”.

Having the sense to choose the right model at the right time it is not learnable in a book or in a classroom; it is a skill that analysts and managers will only gather with time and experience.

Industry overview

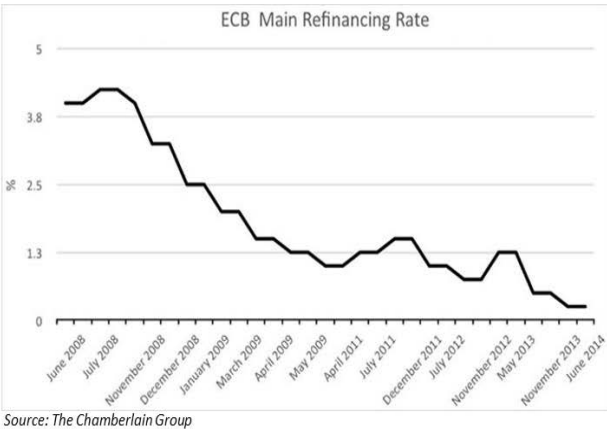
Before proceeding to a formal valuation of the DIA, SA it is useful to understand deeply the market where the firm is inserted and also all the environment that can influence its activity.

Retail Sector Overview

DIA's core business it is based in two different segments, the Iberian zone (Portugal and Spain) and the Emergent zone (Argentina, Brazil and China). Due to the big differences between the two different geographical areas where DIA's core business is held, it is useful to proceed into two different analyses in what matters to the retail sector. The first will be based on the Iberian/European market and the second one will be based on the Emergent markets zone.

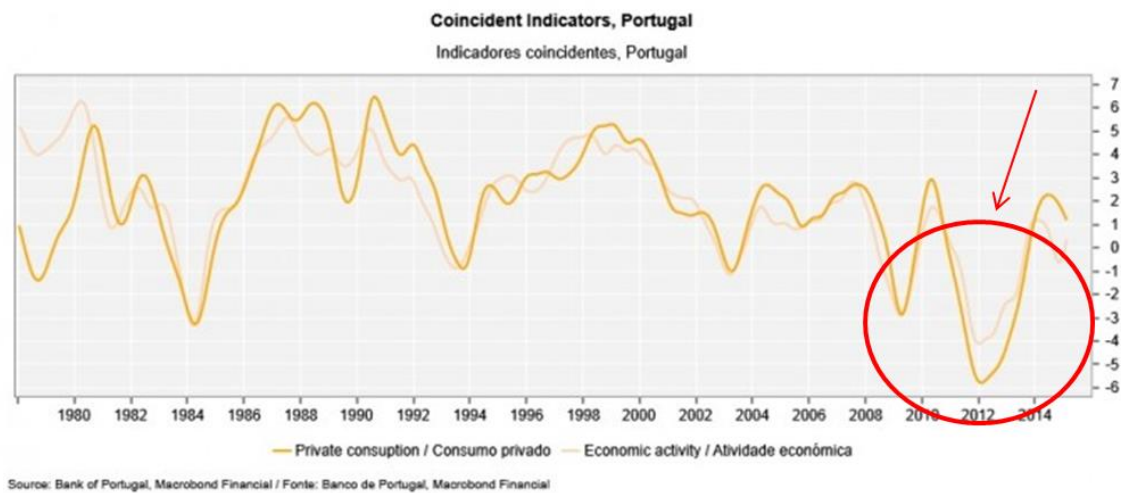
Iberian zone

In the Iberian zone, after the hard times of the sovereign debt crisis that took the two countries to ask for external help (not in the same conditions), 2014 worked as the inflexion point to this situation as it was the year where the consumption finally increased after recession. This turning point became more evident also because of the trust in an economic recovery demonstrated by consumers during this year.



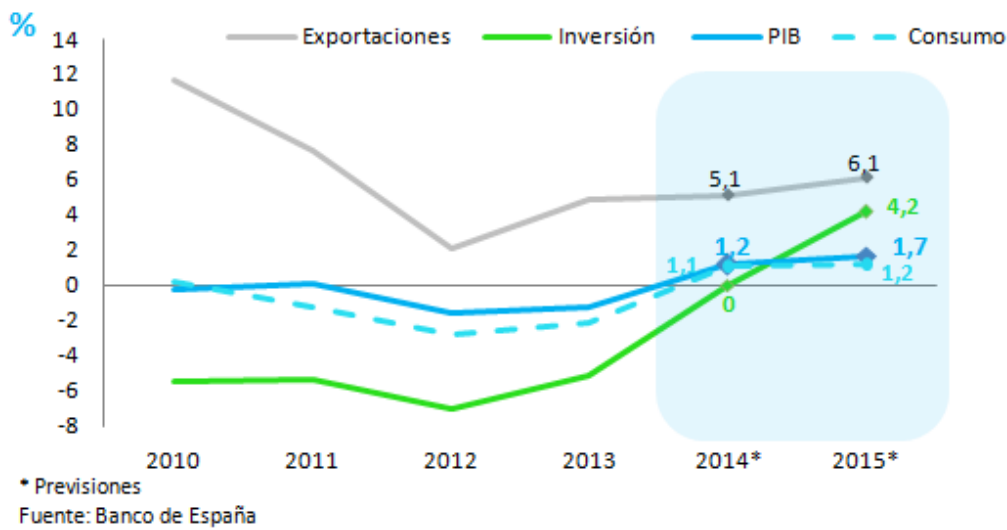
As it possible to see in the previous graphs, the low levels of inflation and interest rates would legitimately give an extra incentive for families to increase consumption. Although there were shown some signs of recovery, this was still a very hard year for families in a context where unemployment rates, lack of equity, and poverty levels remain very high. The consumer,

during this year, was expected to demonstrate a very rational buying behavior, where low prices and promotion share the highest concerns in costumers. Due to this concern about the prices and the search for discounts in the consumers' side, the industry felt a big pressure over the prices which led them to a decreasing prices process in a way that the main driver for the business was the presentation of unbeatable promotions. Because of this, and even increasing the volume of sales during this period, the sector registered a decreasing tendency in the returns. To better understand the macroeconomic situation it would be relevant to analyze the following graphs:



Observing the previous it is possible to understand, in the marked zone on the graph, the extent of the negative effects of austerity in Portugal, during the period between 2012-14, over the private consumption and economic activity. According to OECD Economic Surveys about Portugal (July 2012), the cut in the families' income was the fundamental point that explains the total decrease in the performance of these indicators. In what matters to Spain, its situation is very similar as we can see in the next graph.

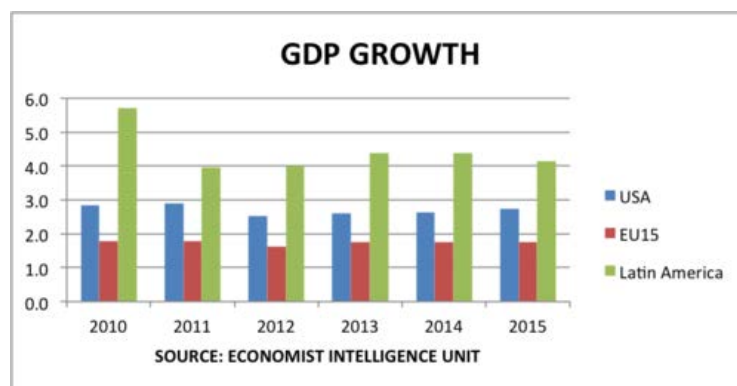
Previsiones de crecimiento de la economía española,



As it happens with Portugal, in Spain the same economic indicators (Private Consumption and GDP) suffered high losses in the period of the sovereign debt crisis, being also 2014 the year where there was the inflexion of the tendencies and where it started an effective economic recovery.

Emergent Markets zone

About Emergent market zone, the situation is quite different from Iberia as in these areas the development of the industry is still not at the same level as in the Iberian zone and due to the still fast actual and historical growth of these areas there is a big commitment from the sector to make stronger the presence in this areas. First of all it is necessary to make a distinction between the two geographical areas that compound the Emergent zone, South America (Argentina and Brazil) and China.

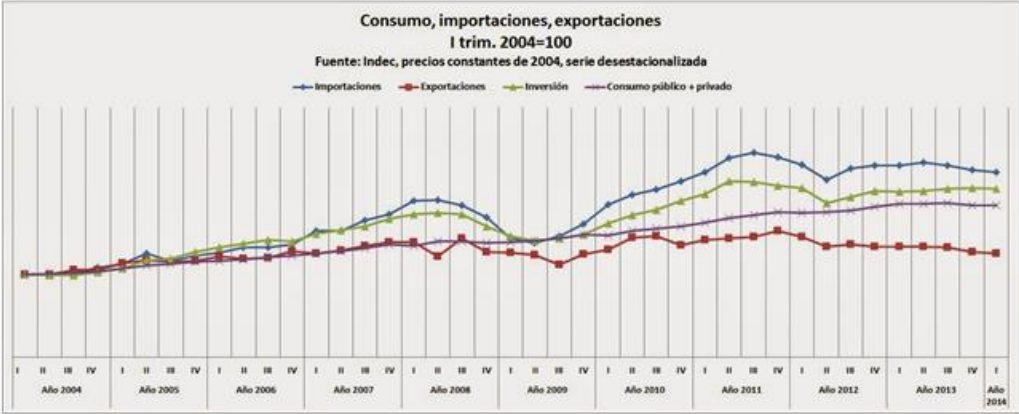


Beginning by the South American area, this is a market under constant development as historically these are countries with fast development rhythms (explained in the previous

graph) but lately this rhythm has slowed down, and, for instance, took Brazil in 2015 to an economic recession.

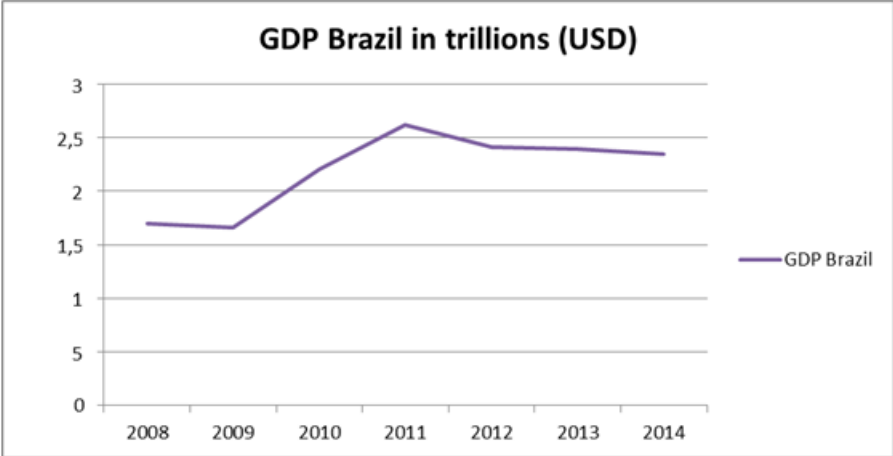
On the other hand, Argentina continues a growth tendency the characterized the behavior of that country after the big crisis that lasted until 2000.

After having a general view over the South American economic development it would be relevant to explore separately the behavior of the two economies that are main target of the study. Starting with Argentina, in the two next graphs it will be shown the evolution of the private consumption of these two countries, which works as a benchmark to evaluate how the retail industry is performing on those areas.



Source: 2.bp.blogspot.com

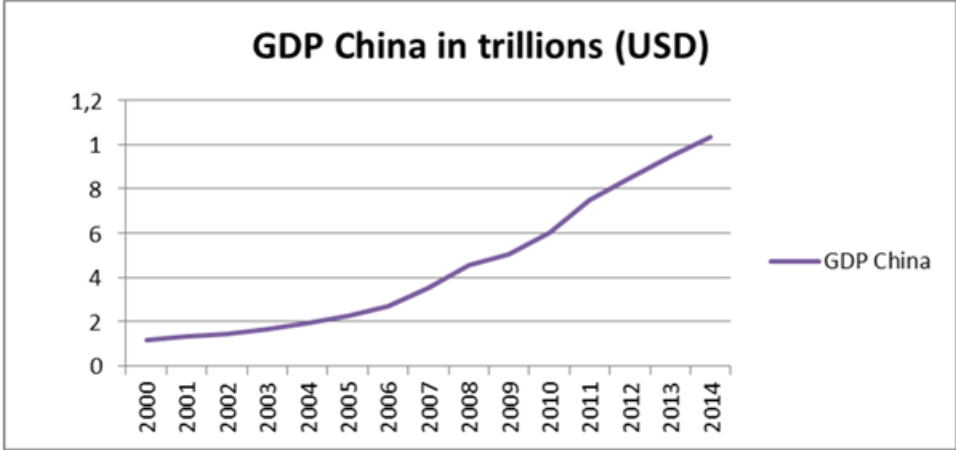
In this first graph above, it is possible to observe the stable evolution of the Argentinian private consumption. It is shown a consistent growth so it is possible to infer that Argentina’s retail industry is also gaining with this situation.



Source: IMF Country Outlook

From the analysis of this previous graph it is possible to see the difference between the evolution of Brazilian and Argentina economical performances. As it was said before, Argentina maintains a consistent growth as Brazil is no more a standard of development as it is in recession since around 2010 and this situation continues nowadays even with more severe repercussions.

Finally, China represents a very particular case of study as its political and economic system lives constrained to the policies that the main government imposes. Although supposedly communist, China presents an open economy that has been growing a lot in the most recent years due to the effort of being the “factory of the world”.

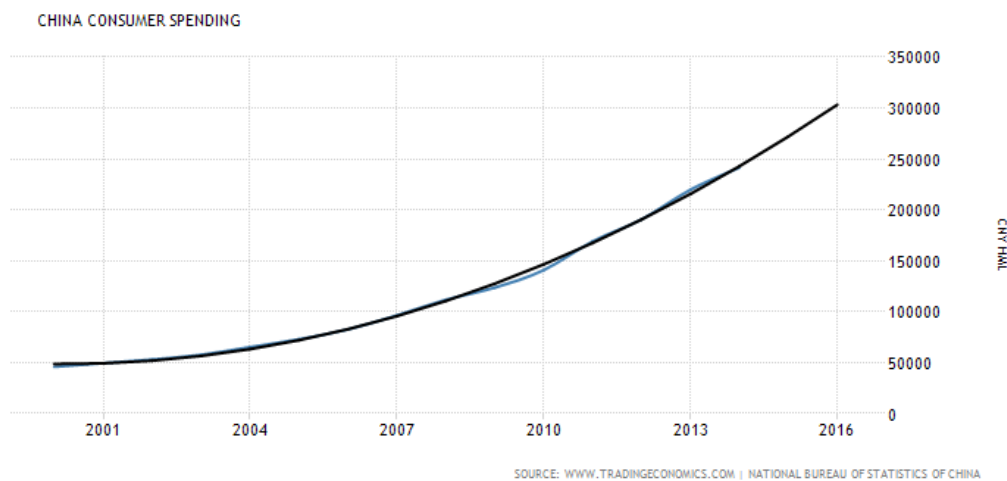


Source: IMF Country Outlook

As we can see by its annual growth in the past graph, its exportations explained during some time the massive growth that it was presenting but lately, and after the subprime and sovereign debt crisis, the western world consumption decreased and that had severe repercussions in China’s growth. As it is possible to see in the next graph, after 2008 (period when the subprime crisis started), the exports of China, despite growing, are facing a period of big instability, so they are no more a reliable source of growth.



Because of this fact, China proceed to a change in its policies and started promoting the internal private consumption as a way of draining the excess production and at the same time created a kind of urban middle class that would support national production.



As it is possible to observe, the government of China proceed to a massive effort to increase the private consumption, especially after the period of 2007/08 as an answer to the decreasing of the World's demand of Chinese exports due to the crisis.

FMCG Sector Overview

For a further analysis on the FMCG Sector, which is a fundamental industry for Retailing, please consult the Appendixes.

Main Players

The retail industry is dominated by big international companies that capture the majority of the market share. In Europe, this situation is quite evident and the most important players are resumed in the following table:

Rank	Retailer	Turnover Europe	Turnover intern.	Hq.
1	Schwarz	79.3	79.3	Germany
2	Tesco	66	86	UK
3	Metro	59e	63	Germany
4	Carrefour	56	74.7	France
5	Rewe	51.1	51.1	Germany
6	Aldi	48e	65.8	Germany
7	Edeka	47.2	47.2	Germany
8	Auchan	40.1e	53.5	France
9	ITM	40.1	40.1	France
10	E.Leclerc	37	37	France

e = estimate

Source: retail-index.com

As it is easy to understand, the industry is dominated by German and French groups, where Schwartz, Tesco and Carrefour play the most important role as their revenue is higher than all its competitors.

Inside the retailing sector it is possible to focus more the analysis into the specific business of DIA, the discount store model, and observe which are the dominant companies in this field.



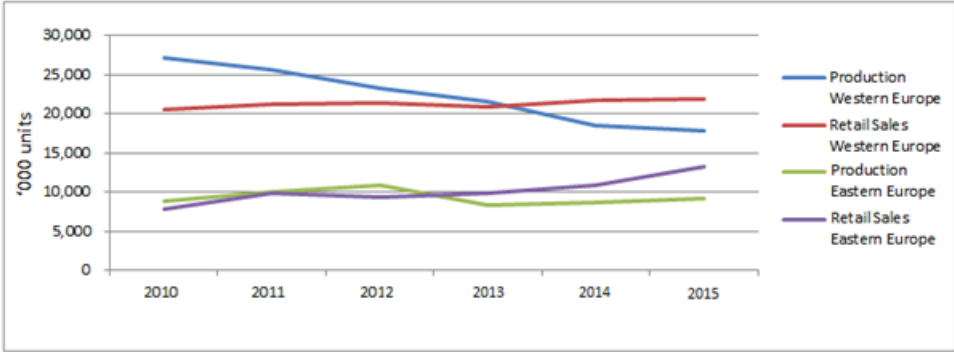
The previous graph describes the current situation of the retail sector and also the forecast for the close future. The sub-sector is dominated by Lidl and Aldi that registers massive growths

during the past years and are forecasted to grow even more in a close future. DIA does not present so good results as these two competitors but also shares good perspectives for future growth.

Perspectives for the future

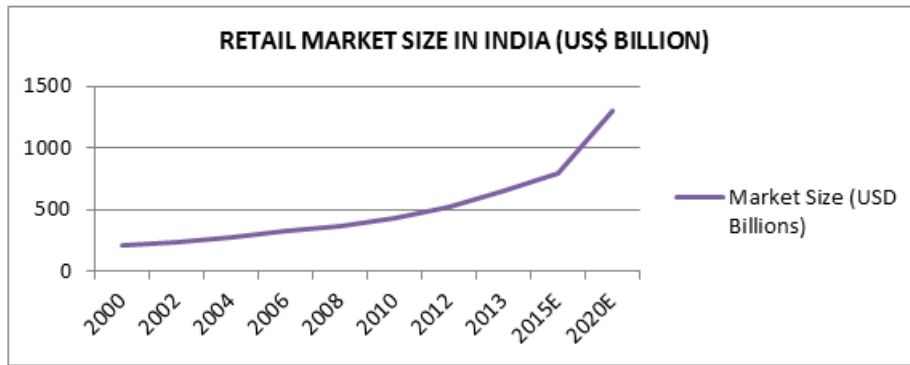
The latest crisis period that the world faced took to the next level the importance of making the difference and adding value to the standard established concepts. Companies have now, more than ever, the need to discover new ways to add value to their products and services and, for that, many different paths are possible.

The search for new geographical areas of business, namely in the Eastern European countries with potential for retail sales growth (as shown below), is a good way of searching for new forms of return.



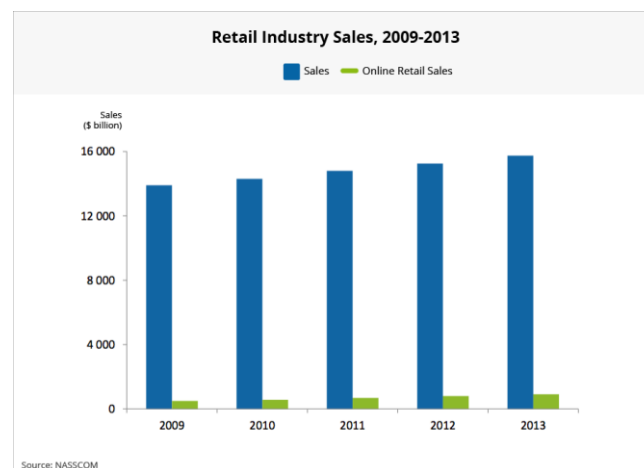
Source: blog.euromonitor.com

Apart from China, where DIA already has a relevant position, also India is a very good place to invest as its private consumption is growing each year supported by an increasing middle class. This tendency is confirmed by the results presented in the next graph from “India Brand Equity Foundation”, where it is shown the forecast for the sales of the retail sector.



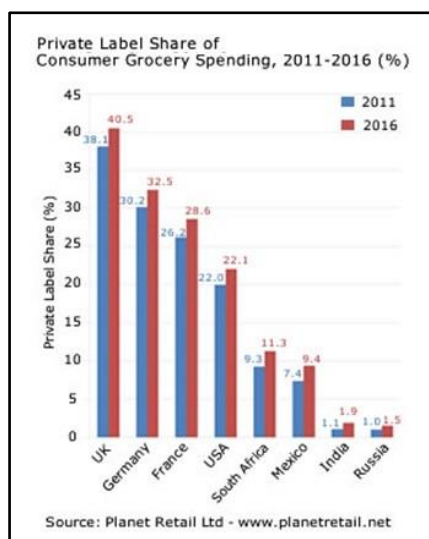
Source: India Brand Equity Foundation

The second perspective for the future is the question if the internet will gain more importance in the retail market and especially the hard discount sub-sector. Since the main core business of this sub-sector is fresh food products and FMCG, internet did not enter in an effective way in this business as it shown in the next graph:



As it possible to see in the graph, internet did not already imposed its importance in this sector as its sales results are residual in comparison to the total overall.

The third tendency that should be followed is the continuation of the investment in private labeling. This type of brand demonstrated to be an essential tool for success and that was proved especially during the most difficult economic periods, where these brands were the perfect answer to the constant need to reduce expenditures in households. By analyzing the previous graph it is possible to notice that in all areas there are expectations of growth for the private labeling market. With the development of the demand for these products, the supply was easily more able to development them exactly in the right way of satisfying customer needs.



According to PlanetRetail, the customer is now expecting, not only the traditional way of conducting the retail business, but also other approaches that can more effectively fulfill completely their needs so one way to do it is developing even more the diversification of stores concepts. Stores from the same retailer that appeal, for instance, to extra discounts or, on the other hand that appeal for gourmet products are each time more common and popular as people identify themselves with the brand and with the relation between quality and price. To finish, this takes us also to other trend for the future, which is the tendency to incorporate vertical integration and consolidation of operations. In a more globalized world, the restructuration of supply chains and the increasing tendency of internationalization are opening the possibility to find new ways of finding economies of scale.

Retailers are each time getting stronger. With the increase of the control in the supply chains, retailers gain each time more power to decide prices and margins as they are tending to be the only intermediaries of the goods. If we connect this situation with the fact that food keeps being the most important retail sector we can get to the conclusion that companies like DIA have the best perspectives to the future. If the economy goes well, the tendency will be to continue to develop the business but on the other hand if the economy falls again, as it is explained by the Giffen Goods Theory, the impact on this industry will not be fatal.

Company Overview

DIA, SA

General overview

Distribuidora Internacional de Alimentación, S.A. (DIA) was founded in 1979 and it is a Spanish supermarket chain. As it was stated before, its business is focused on the Iberian area, South America and China. (Further information about DIA's structure and history in the Appendixes.)

Business Segments and Historical Evolution

DIA is divided into two different segments: Iberia and Emergent Markets.

Iberia

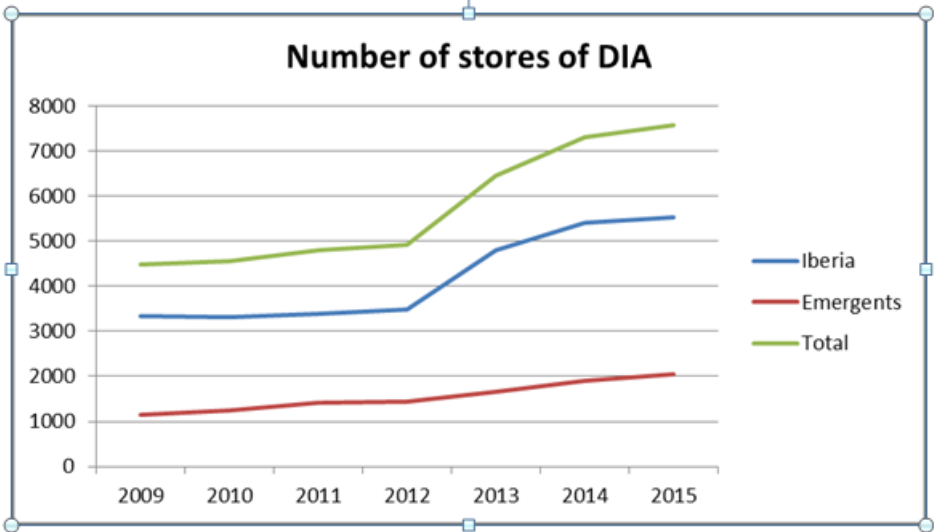
DIA is a Spanish company and the first country where it expanded its operations was Portugal. Together these two countries form the Iberian zone. In Europe, it is also present in Switzerland, where it based a supply warehouse that serves the Iberian zone. In the past DIA owned stores in France, in partnership with Carrefour and in Turkey but these participations were sold out in 2014 and 2013, respectively.

The Iberian segment is characterized to be a well-established and mature line of business where expansion is controlled and returns can be easily predicted. Due to its maturity, it already conquered its space in the market and in the mind of consumers that can associate DIA and Minipreço to a quality space where they can get their needs satisfied. Since 1979, when it was founded and since 1993 the number of stores registered a constant increase which is now becoming more stable.

Emergent Markets

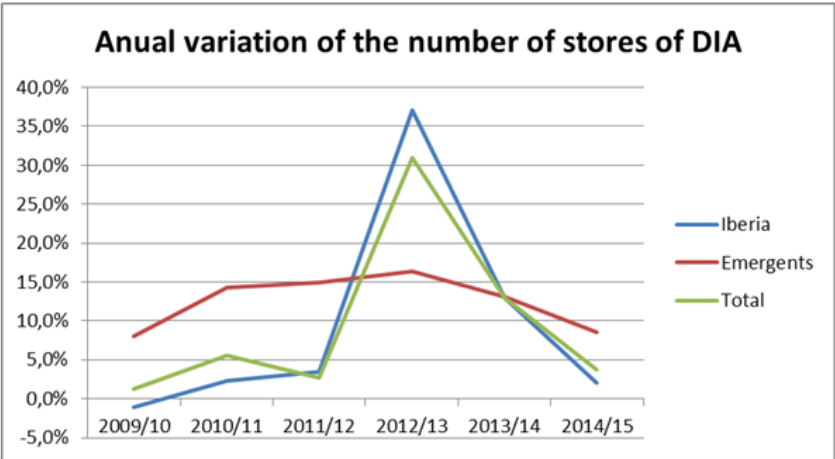
The emergent markets, composed by Argentina, Brazil and China are still in an initial development phase and the expected market share was not still achieved. Due to this fact, the growth rates to which this area is subject to, are very high, but still it is important to separate the countries that compose this area. South America has a fast growing market where the

opportunities to grow are very evident, but in the most recent years, and according to the most recent DIA's account reports (2013 and 2014), Brazil did not fulfill the expectations of growth due to its internal economic crisis. Argentina, on the other hand, has registered a consistent evolution and represents a much safer investment as it is crossing a stable economic period. To better understand the growth of DIA the next graph will be presented:



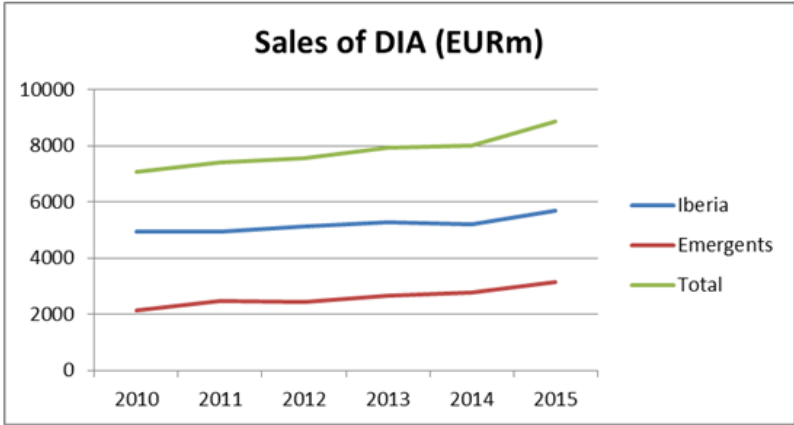
Source: 2014 DIA, SA Consolidated Accounts Report

As it is possible to observe, until 2013, DIA presented a constant growth in the number of stores - that is more evident, as it is expected, in the emergent markets than in the Iberian zone. After 2013, and due to the closing of the stores in Turkey and France (both not included in the graphs), there was a massive effort to increase the number of stores in Iberia (almost doubled to 6000 in three years), especially in Spain which lead to a growth in its operations in this zone (visible in the chart below).



Source: 2014 DIA, SA Consolidated Accounts Report

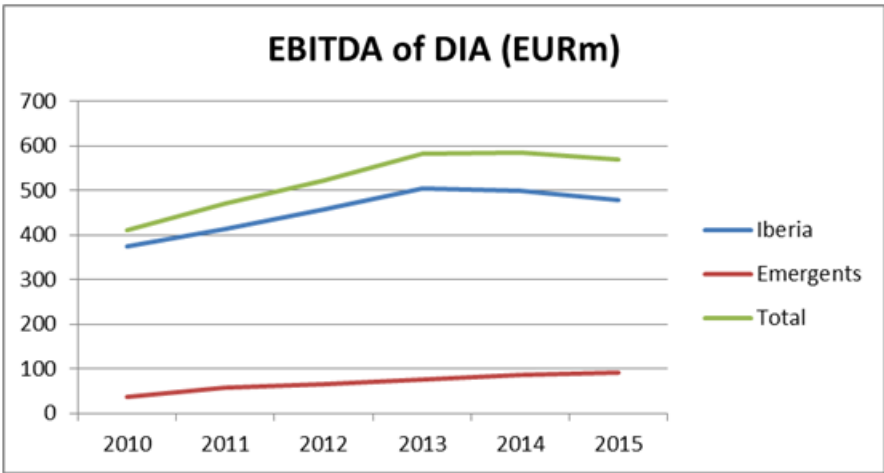
The last graph provides a view over the annual increase of the number of stores of DIA. As it is possible to understand, apart from 2012 and 2013, when the Turkish and French stores closed and gave space to open more stores in the Iberian area, the tendency of growth in this area is approximately equal to 5%.



Source: 2014 DIA, SA Consolidated Accounts Report

Analyzing now the financial data, it is possible to confirm the constant growing tendencies that DIA has been presenting across time and that is one of the signs that show that DIA is performing well during the years. The sales behaved positively during the period presenting every year some growth with exception to 2014, when in Iberia, sales registered a slightly decrease.

For a better understanding it would be useful to analyze the evolution of the EBITDA of the company:



Source: 2014 DIA, SA Consolidated Accounts Report

As it is shown in the graph, the EBITDA has registered a positive evolution across time, especially in the Iberian zone from 2010 to 2013.

It is also important to note that although it may look low and representing a small percentage of the overall EBITDA, the emergent area registered high increase in its financial values since 2010, but still there is a long path to follow in order to achieve the desired and highest possible market share. It is also important to note that the Europe Sovereign Debt Crisis (2011-2013) did not had any negative effect on the EBITDA evolution as this period was the one when DIA's Iberian zone experience the highest growth in the studied period.

Financial Data DIA (EURm)	2010	2011	2012	2013	2014	2015*
Total Assets	3253	3310	3405	3371	3127	3484
Equity	422	105	148	184	378	208
Debt	942	866	980	913	732	1276
Debt/Equity	1,48	5,50	4,26	3,54	1,41	5,49
Cash & cash equivalents	317	290	350	262	199	136
Net debt	625	576	629	651	533	1140
Sales	7070	7423	7568	7946	8011	8859
Adjusted EBITDA	411	470	522	581	585	570
Adjusted EBIT	217	276	333	392	401	375
Net Profit	117	94	146	196	329	127
Free Cash Flows	134	17	199	289	267	318
Values in blue represent estimations						

To finish this analysis it is also important to mention some comments about the capital structure of DIA and its performance. In relation to the balance sheet of DIA, across time its assets registered a slightly increase with exception to 2013 and 2014 (closing of the Turkish and French stores), while its equity fluctuated between approximately 100 and 400 million euros during this period, which is a very low value compared with the overall value of the assets. As a consequence, this firm is a highly leveraged one. Although it is a very high value, the net debt of DIA has maintained a very stable behavior across time being always between 600 and 700 million euros between 2010 and 2015. Only on 2015 this value increased with the emission of a 500 million euros bond due until 2019.

The Profit&Loss elements, already addressed, estimates for 2015 (based on first semester figures already made available by DIA).

Strategies and Perspectives for the future

According to the 2014 company's results presentation, in the future it is expected that DIA keeps opening more stores and increasing its financial results, but with a tendency of a lower

and more stable rate. For a close future, the group forecasts a “double-digit” growth due to the expansion and acquisition of new stores. This growth might lead to an expectation of increase of the adjusted EBITDA. Also in the close future, the firm’s performance can be impacted by some facts, for instance, the deflationary scenario in Europe, a natural consequence of the economic crisis felt in this area in the last years and that can be very dangerous for the business. On the other hand, also the poor economic growth of Brazil and the potential lower economic performance of Argentina are reasons for concerns as these are essential markets where DIA is expected to develop its operations.

According to the same report, in what matters to challenges in the short term, it is necessary to highlight the effort of DIA in constantly updating the shop formats in every region in order to fit better into each zone. This effort will lead DIA to create and prepare a new supermarket platform which will facilitate a more effective dynamic expansion of the brand.

In the Iberian zone there is one word capable of describing the current and future business goals: “consolidation”. According to JP Morgan’s Equity Research, this is the premise that guides the firm in this zone. DIA needs to continue the efforts to maintain a competitive position in the market in comparison to its competitors. In Spain, although it is not a market leader, this brand is well established in the business and every year was able to “consolidate” more its presence. However, even in Spain, DIA is not able to keep up with the massive growth of some competitors, like Lidl and Carrefour. The main problem of Iberia resides in Portugal, where, even with the consistent opening of new stores every year, the brand fails to develop and grow consistently. This situation led already to the decrease of the number of stores from 2013 to 2014. The Portuguese case is very particular as the retail sector is still very dependent of the two main players (Sonae and Jerónimo Martins) that dominate the market. The answer of DIA to this problem was decreasing margins as a result of the competition, which impacted the company’s performance. This situation explains the decrease in profitability from 2014 to 2015 and it is an important driver to define the future.

In relation to the emergent zone, the second area of the group, the evolution remains positive, but the recent developments in Brazil’s economy and the uncertainty about its future performance condition the company’s perspectives. Furthermore and according to Intermoney Valores (equity research), this problem gives us no signs of a stabilized currency in Brazil which may be a big danger due the activity and exchange operations. Surprisingly, the

currency impact was very small due to the appreciation of the Argentine Peso and the Chinese Yuan, which until now was able to offset the depreciation of the Brazilian Real.

Summing up, DIA has several challenges for the future. Apart from consolidating its position among its competitors in Spain, DIA is focused in allocating efforts to strengthen its presence in Portugal, where Lidl is the only discount store that definitely gained some share to the two dominating retailers. In what matters to emergents, the company has many challenges to fulfill before achieving a comfortable share in this market. More than opening stores, increasing sales or maximizing results, DIA must, first of all, deal with the economic treats that may disturb the development of its activity in South America and try to intensify its presence in China.

Valuation of DIA

Introduction

This is an exercise of valuation of DIA, SA where two primary methods are applied: Discounted Cash-Flows and Multiples Valuation. The purpose of this valuation is to present a consistent estimate for the Enterprise Value of DIA supported by forecasts and assumptions based on the available information.

Segments of Analysis

As it was referred before, the analysis of DIA is divided into two geographical segments that, on top of being settled in two completely different locations, also present different states of development, market shares and presence in countries with different level of growth. These differences are significant enough to justify a differentiation between the areas, as the consolidated numbers would only reflect a weighted average of the results and, less robust conclusions.

In this way, and taking into account the specifications of the firm, two different segments were considered; Iberia and Emergents. The Iberian Area includes Portugal and Spain while Emergents Area includes Argentina, Brazil and China.

Discounted Cash-Flow

Briefing

As it was explained in the Literature review, the Discounted Cash-Flow Method presents the value of a company based on the expectations of its future cash-flows, which are discounted to the present with an adequate discount rate, known as Weighted Average Cost of Capital.

In order to apply this method, the different variables needed to calculate the Free Cash Flow were computed separately and assumptions were taken in order to forecast future results.

Having two different segments will lead to two different parallel analyses which are combined in the end to achieve a final valuation of DIA. Each segment has a different explicit period. Given the dimension and the present context of the market, it is easily understandable

that Emergents and Iberia do not share the same level of maturity in the business in its respective areas. In the case of Iberia the explicit period is equal to five years and, in the case of the Emergents, this timeframe is will be ten years.

After studying the company annual reports, equity research papers and tendencies of the Iberian, European and South American markets it was possible to build a rational for the chosen explicit periods.

In the case of Iberia, it was said that the explicit period would be equal to five years. The explanation for this resides on the fact that it is taken the assumption that in a period of five years (2015-2020) this area will consolidate its growth into a long-term stable growth. After this period, it is assumed that this area will maintain a stable performance.

Relating to Emergents, the assumptions are quite different. As a result, it was assumed that, from the original ten years of explicit period (2015-25), the first five will describe a fast growth, following the historical increasing growing behavior and the last five years would represent the stabilization towards a reasonable and consistent long-term growth.

Considerations on Operating Performance

The first items to be analyzed are the variables from the Income Statement, where it is included the Sales, EBITDA or the EBIT. To conduct this valuation process historical figures were analysed in order to support future operating performance estimations. The assumptions made in this analysis were based on the forecast of three variables during the explicit period. These variables include: annual increase of sales, Net Sales (in percentage of the Gross Sales) and the Adjusted EBITDA Margin (in percentage of the Net Sales). It also important to note that, across all this analysis, to form a consistent assumption about some variable, two considerations are taken: first, it should reflect a consistent evolution from the past numbers, in order to guarantee plausibility. Second, and looking more forward to the future, it should represent a consistent view of the multiple sources of information available (accounts reports, company's report, equity researches and general information).

Iberia

Iberia						
(EURm)	2015	2016	2017	2018	2019	2020
Gross sales under banner	6.357,61 €	6.624,63 €	6.896,24 €	7.172,09 €	7.458,97 €	7.720,03 €
of which Schlecker/Clarel	331,91 €	345,85 €	360,02 €	374,43 €	389,40 €	403,03 €
of which El Arbol	854,00 €	864,25 €	873,75 €	882,49 €	891,32 €	895,77 €
LFL gross sales under banner	-	-	-	-	-	-
Net sales	5.433,16 €	5.630,93 €	5.792,84 €	6.024,55 €	6.190,94 €	6.330,43 €
Net sales (%Gross Sales)	85,5%	85,0%	84,0%	84,0%	83,0%	82,0%
Adjusted EBITDA	488,98 €	512,41 €	532,94 €	560,28 €	581,95 €	601,39 €
Adjusted EBITDA margin (%Net Sales)	9,0%	9,1%	9,2%	9,3%	9,4%	9,5%
Amortisation and depreciation	125,71 €	122,46 €	115,88 €	107,61 €	93,63 €	92,42 €
Impairment	5,03 €	4,90 €	4,64 €	4,30 €	3,75 €	3,70 €
Adjusted EBIT	358,25 €	385,05 €	412,42 €	448,37 €	484,57 €	505,28 €
Adjusted EBIT margin	5,6%	5,8%	6,0%	6,3%	6,5%	6,5%

In the previous table it is possible to observe both the historical values and the forecasts made for the Iberian area in a period from 2015-20. As said before, the explicit period accepted for Iberia includes a first period of five years when the business will stabilize and tend to steady state with a consistent long-term growth.

Starting by the Sales, historical values on its increase are not totally clear but it is possible to find some pattern in the numbers. In this analysis, the sales results of 2014 are considered an outlier in the context of the general evolution, due to the loss of the French stores. Following the pattern of the previous years, especially since 2011, it was considered, also according to the equity reports, that the growth of DIA's sales would be between 4% and 5% with a decreasing behavior over the years (next five years) until anchoring around 2% of annual sales growth rate.

About the Net Sales, it is possible to observe that, by indexing them as a ratio in relation to the Gross Sales evolution, a consistent pattern is achieved. Instead of making projections about the Net sales, by continuing the indexation, it is possible to obtain plausible results by continuing the tendency of decrease of the weight of the Net Sales in the total Gross Sales. This tendency is explained by the price investment (discounts) practiced by DIA. This is a growing tendency for the future as it is a way of turning the firm more (commercially) competitive against its peers.

Considering EBITDA margin, historically, this value showed an increasing tendency as it was able to grow 200 b.p. in just five years (2010-15). As it was stated by JP Morgan's equity research and confirmed by DIA's Annual Accounts, this margin would tend to achieve a a

smooth increase until 2020 due to the natural economies of scale that the company will achieve, year when it will stabilize.

Emergents

Emerging Markets											
(EURm)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Gross sales under banner	3634,95	4180,19	4890,83	5820,08	6984,10	8171,40	9315,39	10340,08	11063,89	11506,44	11966,70
LFL gross sales under banner	-	-	-	-	-	-	-	-	-	-	-
Net sales	3017,01	3469,56	4010,48	4772,47	5726,96	6618,83	7545,47	8375,47	8851,11	9205,16	9573,36
Net sales (%Gross Sales)	83%	83%	82%	82%	82%	81%	81%	81%	80%	80%	80%
Adjusted EBITDA	102,58	128,37	160,42	200,44	263,44	330,94	407,46	485,78	548,77	607,54	670,14
Adjusted EBITDA margin	3,4%	3,7%	4,0%	4,2%	4,6%	5,0%	5,4%	5,8%	6,2%	6,6%	7,0%
Amortisation and depreciation	56,27	93,74	115,68	143,27	180,45	209,02	281,27	294,43	322,42	338,84	322,10
Impairment	1,41	3,75	4,63	5,73	7,22	8,36	9,38	9,81	10,75	11,29	10,74
Adjusted EBIT	44,89	30,89	40,11	51,45	75,77	113,56	116,81	181,54	215,60	257,41	337,30
Adjusted EBIT margin	1,5%	0,9%	1,0%	1,1%	1,3%	1,7%	1,5%	2,2%	2,4%	2,8%	3,5%

The same principle was followed when forecasting the future performance of the Emergents segment. In this case, ten years of explicit period are used with a different assumption. Based on the equity report, which states that the first five years would constitute a fast growing period, which would be fundamental to consolidate their position in this market. The last five years would mark a different growing behavior of the firm, as in this period, the growth would decrease and stabilize into a consistent but more moderate growth.

In this market, the sales are historically a variable that registers a very quick growth, but in the last three years, due to the severe crisis in the Brazilian market and the stabilization of the Argentinian economy, the growth of the sales of the firm was moderate.

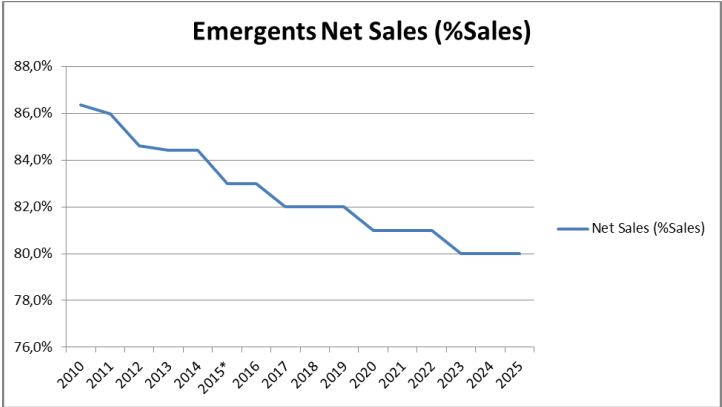
GDP Growth Prospects						
Brazilian GDP Growth Forecast (%)						
2011	2012	2013	2014	2015	2016	2017
3,90%	1,80%	2,70%	0,10%	-1,30%	1,10%	2,00%
Argentinian GDP Growth Forecast (%)						
2011	2012	2013	2014	2015	2016	2017
8,40%	0,80%	2,90%	0,50%	1,10%	1,80%	3,00%

Source: World Bank Forecasts

According to the equity research and to the statistics presented in the “Company Overview” and World Bank estimates, there are good perspectives of a recovery of the growth in the South American area. It is expected by the World Bank that Brazil and Argentina will increase their GDP growth in 2016 and 2017. This would be an essential condition to defend that Argentina and Brazil would recover from their current more fragile situations. Sales for the first five years of the explicit period assume a higher growth, followed by a second 5 year

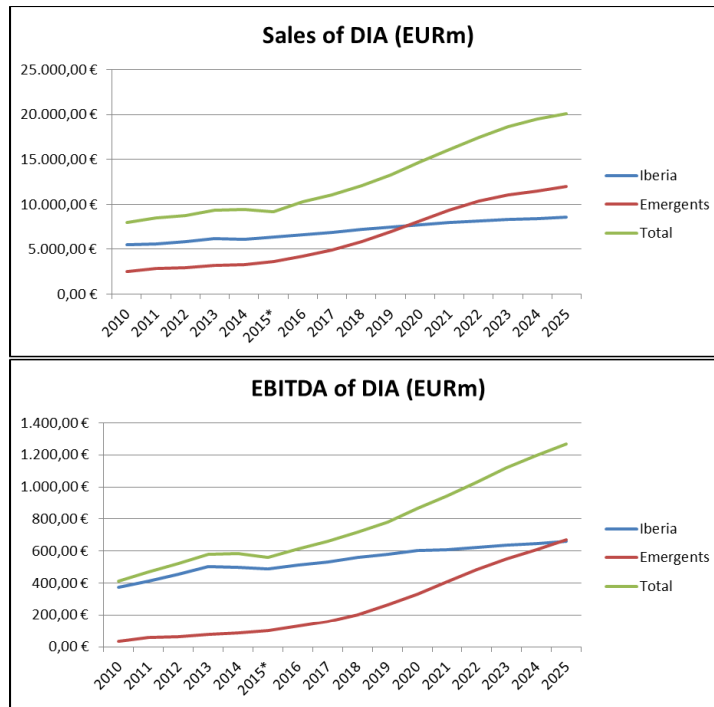
period where sales are expected to grow more moderately according to the foreseen maturity that DIA expects to achieve in this market.

In relation to the Net Sales, the same rational used for Iberia was followed. In order to enhance the quality of the forecasts, this variable was indexed to the Gross Sales.



Finally, the Adjusted EBITDA margin has been, historically, growing and that tendency should be maintained due to the growth efforts of DIA in this area, especially in the first period when the growth is higher. Also, in the last five years, it is legitimate to assume that this value would rise. Having in mind the maturity of the business in this area, it will be plausible to achieve a higher level of economies of scale.

Emergent Zone faces a period of growth across time as, apart from the first two years, it is expected a sustainable growth during the explicit period. Not even the recession of Brazil or the stagnation of Argentina were able to disturb negatively the estimates, with exception to the first two forecasted years where signs of the crisis are felt.

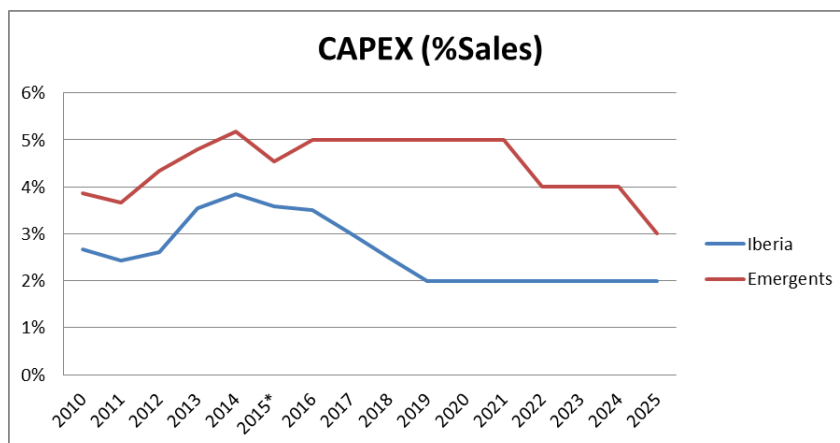


Summing up, the forecasts of the Sales and EBITDA are very favorable, especially for the Emergent Segment, where a big growth is expected. It is possible to observe in the graph, that the level of sales should be equal in both segments by 2020 and the level of EBITDA by 2025. All the growth of the Emergents, makes this area the major responsible for the increase of Sales and EBITDA of DIA.

Taxes

To find a suitable tax rate for each zone, it was made a weighted average on the taxes of each country indexed to sales of the respective zone. From this calculation it was found a tax rate of approximately 27% for Iberia and 34% for Emergents.

CAPEX



In Iberia, in the past five years, CAPEX represented between 2,5% and 3,8% of sales, and tended to moderate growth in the last few years. This trend is a sign of the deceleration of the investments and consequently of the growth..

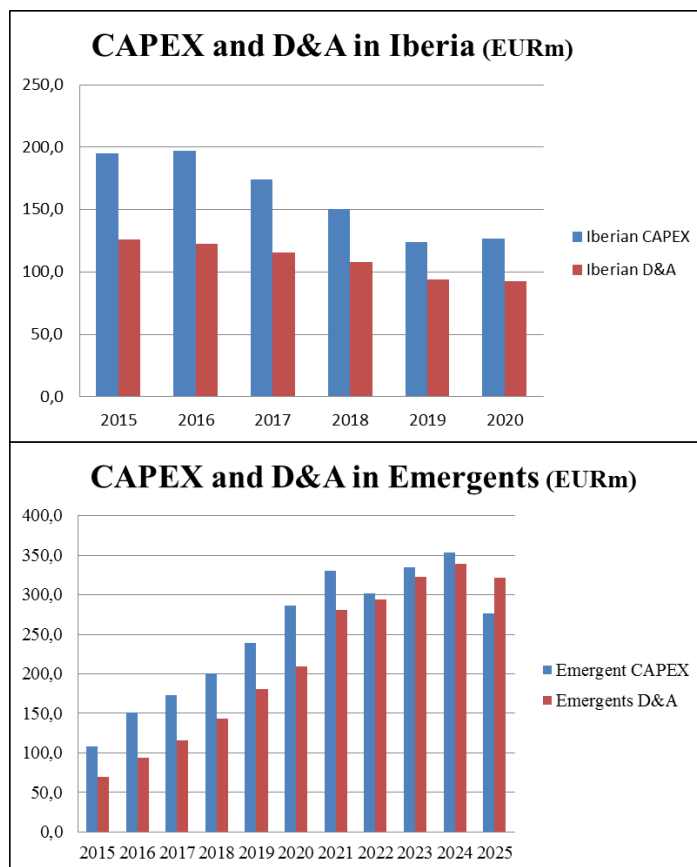
On the Emergents, CAPEX represents a higher percentage of sales as this is a market under constant development. During the first five years of the forecasted explicit period, CAPEX will stay at similar levels to the historical period, in order to reflect the growing behavior. But in the last five, CAPEX will tend to decrease to 3% of the sales in the long run.

In this way, by maintaining a stable level of CAPEX and equalizing it with Depreciations and Amortizations, as it will be seen after, it is effectively possible to assume more effectively a steady state. By representing the same value, it means that all the new investment done has the objective of replacing the depreciated and amortized assets. This effect is more effectively seen in the last years of the explicit period.

Depreciations, Amortizations and Impairments

Depreciations, Amortizations and Impairments were split within the two different segments according to the CAPEX proportion of each one. Usually, as a rational for the estimation of the Depreciations, Amortizations and Impairments, it is used the assets, but in the context of this firm, and taking into account the recent sale of important assets owned by the company (France and Turkey positions closed), which lead to some imbalance in the assets account, it was considered that this would not be a trustable assumption.

During the historical period analyzed, it is observable that the yearly expenditures are constantly decreasing. Also in a relative comparison, in a percentage relation to the sales, this variable gives signs of decrease as in the first five years it loses nearly 200 b.p. in relation to the sales (from around 4% to 2%). Following this tendency, in the forecast presented, and in an attempt to be as faithful as possible to the trend, it was assumed an even lower value for the first five years of the explicit period of 2,5% of the sales. There are many sign that indicate that a firm is in steady state and one them happens when Depreciations and Amortizations equals the value of CAPEX, as it possible to observe in the following graph:

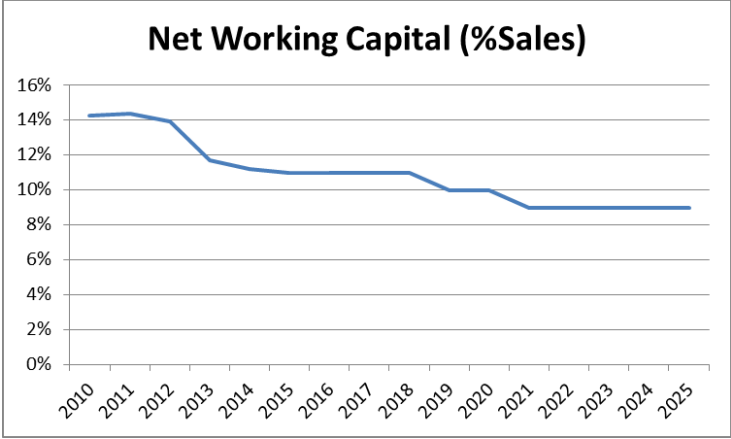


This is fundamental condition as it brings us the assumption that new investment works only as a replacement for the old and depreciated one. This is the proper way to guarantee the maintenance in the current investments without other compromises with new ones. This convergence with the CAPEX on a longer run was a also a big concern, so, to guarantee this condition, it was assumed that Depreciations, Amortizations would represent 3% of sales in the last five years of analysis. In what matters to Impairments, this variable represents a very small percentage in the overall value (between 0,02% and 0,12%) so, in a standard way, and reflecting the average of the past years, it was chosen the value of 0,1% for all the length of the explicit period.

Working Capital

Historically, working capital has been decreasing in absolute terms, but inferring any conclusion from this fact would be a very incomplete analysis as during our historical period two areas of business of the company were discontinued. A relative analysis is then more appropriate, and following what was developed until now, sales were used as reference also here. With this analysis it is possible to observe that, historically, this value is descending

between 11% and 14% of sales, so this will be the starting point of our analysis and forecast, as it is possible to follow in the next graph:



Apart from adjusting the working capital due to the closing of the French and Turkish shops, it is stated also, in the reports analyzed, that it is applied a real effort to decrease, in a relation to sales, the amount of this variable. In this way, there is a higher control over the real cash generation of the firm. On the other, regarding the available information, it is assumed that the company is gaining from economies of scales, for instance, in the negotiation with its suppliers. Following the decreasing tendency, it is forecasted that the firm will present a slightly decreasing tendency for the working capital, which represents a relative decrease from 11% to 9% of the sales across all the explicit period.

This variable was also presented as a whole for the firm, so there was also here the need to differentiate between areas. Working capital was allocated to each segment according to the average weight of sales.

WACC calculation

As it was stated before, this equity analysis is based on the sum of two sub-analysis to each one of the segments of the company: the Iberian and the Emergents. Two WACC's, for each one of the segments, were calculated..

Cost of Debt

DIA has a high amount of debt, mainly composed by bank loans. Recently, the firm issued, for the first time, fixed coupon bond (500 million euros). This bond, according to Reuters' Terminals in the November 1st 2015, has a Yield to Maturity of 1,11%.

The Total Net debt of DIA (data from the 3Q 2015) was approximately 1.139 million euros, where around 600 million euros are composed of regular bank loans. Until 2014, accounts did not count yet with the issued bond, so this was the chosen year to compute the cost of debt net of the bond. For this calculation it was also used the 2014 finance expenses (income statement). To arrive to a final result, it was made a weighted average between the 2014 interest and the YTM of the bond. The cost of debt found was equal to 5,19%.

This will be the only WACC element that will be shared in both areas. Apart from being issued by DIA Corporate, DIA does not make available the geographical distribution of the debt and its respective cost, so it will be assumed the same cost of debt for both segments.

Equity Beta

Before computing the cost of equity of the company, there is an essential element left to discover, the betas. In order to arrive to the Equity Beta, the following formula was applied:

$$\beta_e = \beta_a + (\beta_a - \beta_d) \times D/E \times (1 - T_C)$$

Observing the formula, a market beta is needed and to find it was needed a peer group from where an unlevered asset beta would be found. For each segment it was chosen a different peer group, reflecting the closest companies in geographical and accounting terms.

Peer Group			
Iberia	Beta 5 Year	Emergents	Beta 5 Year
Casino Guichard Perrachon SA	0,94	Companhia Brasileira de Distribuicao	0,88
Tesco PLC	0,89		
Koninklijke Ahold NV	0,77	Cencosud SA	1,27
J Sainsbury PLC	0,77		
Delhaize Group SA	1,14	Wal Mart de Mexico SAB de CV	1,29
Jeronimo Martins SGPS SA	0,90		
WM Morrison Supermarkets PLC	0,40	Lojas Americanas SA	1,06
Carrefour SA	1,25		
Metro AG	1,04	SACI Falabella	1,03
Ebro Foods SA	0,37		
Iberian Beta	0,85	Emergents Beta	1,11

From the chosen Peer Group, it is possible to observe that almost all the betas are located close to 1, which means that the retail industry tends to behave accordingly to the market main tendency. Due to China’s internal market characteristics and the reduced dimension of

China's Sales in DIA, it was not considered any Chinese company in the process of computing the beta.

To finish the computation of the beta, it was also considered the actual capital structure of DIA and each segment tax rate (explained previously).

Cost of Equity

Cost of equity was computed using CAPM formula:

$$E(R_i) = r_f + \beta_i [r_m - r_f]$$

To complement the analysis of the formula, it is important to state that the Risk-Free rate used in the Iberian Area was the 10-year German Bund Yield (13/11/2015) as DIA's market is inserted in an European context, and being German Bunds the safest securities in this area and as there is no currency risk, this was the natural choice. On the other hand, in Emergents cost of equity it was applied as Risk-Free rate the Yield on the 10-year US Treasury Bonds (13/11/2015).

In relation to the difference between the market risk and the risk-free, also known as market risk premium, it was used the market consensus risk premium presented by Damodaran in his website according to each country.

WACC Value

To finish the computation of the WACC for each zone, it was applied the following WACC formula:

$$WACC = r_D \times (1 - Tc) \times \left(\frac{D}{V} \right) + \left(r_E \times \frac{E}{V} \right)$$

To conclude, after applying the formula, it was reached a value for the WACC of 8,92% for the Iberian area and 12,39% for the Emergents area.

Equity beta calculation		
Description	%	%
	Iberia	Emergents
	2015-2020	2015-2020
1. Average asset beta	0,85	1,07
2. D/E ratio	3,02	3,02
3. Corporate tax rate (Tc)	27,03%	33,85%
4. Equity beta = $[\beta_a + (\beta_a - 0) \times D/E \times (1 - T_c)]$	2,72	3,21
WACC calculation		
Description	%	%
	Iberia	Emergents
	2015-2020	2015-2020
1. Risk free interest rate	0,56%	2,28%
2. Market risk premium	8,78%	11,57%
3. Average equity beta	2,72	3,21
4. Equity cost of capital (1+2x3)	24,40%	39,43%
5. After taxes cost of debt	3,79%	3,43%
6. Debt/Assets Value (D/V)	75,11%	75,11%
7. Equity/Assets Value (D/V)	24,89%	24,89%
WACC (4 x 7 + 5 x 6)	8,92%	12,39%

Long-Term Growth Rate

To be computed, the Terminal Value requires a plausible long-term growth rate. This rate is allocated to the applied Gordon Model in order to discover the overall value, considering that there will be a consistent growth of the firm across time. In the limit, the long-term growth of the company should not be higher than the long-term GDP growth. Although there may be ups and downs in the performance of the company, on average, the performance of the company tends to converge to the macro evolution of the Economy GDP (Bernoulli's Law of Large Numbers).

GDP Growth Prospects									
European GDP Growth Forecast (%)									
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
1,80%	-0,40%	0,25%	1,46%	1,39%	1,45%	1,47%	1,49%	1,48%	1,46%
Brazilian GDP Growth Forecast (%)									
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
3,90%	1,80%	2,70%	0,10%	-1,30%	1,10%	2,00%	-	-	-
Argentinian GDP Growth Forecast (%)									
2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
8,40%	0,80%	2,90%	0,50%	1,10%	1,80%	3,00%	-	-	-
<small>Source: European Comission and World Bank Forecasts</small>									

From the observation of the previous table, where GDP growths are available, it is possible to fundament the assumption of choosing a long-term growth rate of 1% for the Iberian zone. This a standard measure of a conservative growth rate, but observing the actual state of the economy, especially the difficult task that countries have to achieve growths, this is a plausible rate to apply as it will not be compromised by the low growth that European zone is facing now. On the other hand, also the Emergents are passing by an unstable period as the future is very difficult to predict. Brazil crisis and Argentinian stagnation of the economy makes difficult the task of finding a suitable growth rate, but as this two countries (and also China) belong to the fast developing ones, it was considered to apply a growth rate of 2% to this area. Despite being conservative, this rate is a sign of the recovery of Argentina and Brazil and the achievement of a stable and consistent growth.

DCF Formulation

After being captured all the elements that compose the computation of the Free Cash Flows to the Firm, the following formula was followed:

$$FCFF = EBIT \times (1 - T) + D\&A - d(NWC) - CAPEX$$

After applying the formula to the elements already found it is possible to arrive to the following results to both segments:

Iberia	0	1	2	3	4	5
(EURm)	2015*	2016	2017	2018	2019	2020
EBIT Iberia	358,25 €	385,05 €	412,42 €	448,37 €	484,57 €	505,28 €
Income Tax Iberia	108,96 €	112,42 €	122,31 €	135,09 €	151,45 €	167,26 €
Amortisation and depreciation	125,71 €	122,46 €	115,88 €	107,61 €	93,63 €	92,42 €
Impairment	5,03 €	4,90 €	4,64 €	4,30 €	3,75 €	3,70 €
CAPEX	194,98 €	197,08 €	173,79 €	150,61 €	123,82 €	126,61 €
WC Variation	- 88,41 €	- 21,75 €	- 17,81 €	- 25,49 €	43,61 €	- 13,95 €
Free Cash Flow to the Firm	96,63 €	181,15 €	219,03 €	249,09 €	350,28 €	293,57 €

Emergents	0	1	2	3	4	5	6	7	8	9	10
(EURm)	2015*	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
EBIT Emergents	44,89 €	30,89 €	40,11 €	51,45 €	75,77 €	113,56 €	116,81 €	181,54 €	215,60 €	257,41 €	337,30 €
Income Tax Emergents	15,19 €	10,45 €	13,58 €	17,41 €	25,65 €	38,44 €	39,53 €	61,44 €	72,97 €	87,12 €	114,16 €
Amortisation and depreciation	69,37 €	93,74 €	115,68 €	143,27 €	180,45 €	209,02 €	281,27 €	294,43 €	322,42 €	338,84 €	322,10 €
Impairment	1,06 €	2,77 €	3,75 €	4,63 €	5,73 €	7,22 €	8,36 €	9,38 €	9,81 €	10,75 €	11,29 €
CAPEX	107,60 €	150,85 €	173,48 €	200,52 €	238,62 €	286,35 €	330,94 €	301,82 €	335,02 €	354,04 €	276,15 €
WC Variation	- 49,51 €	- 49,78 €	- 59,50 €	- 83,82 €	- 47,72 €	- 89,19 €	- 17,21 €	- 74,70 €	- 42,81 €	- 31,86 €	- 33,14 €
Free Cash Flow to the Firm	42,04 €	15,87 €	31,99 €	65,22 €	45,41 €	94,20 €	53,17 €	196,78 €	182,65 €	197,69 €	313,52 €

After being discounted this is the final valuation according to DCF standards:

Valuation (EURm)	0	1	2	3	4	5	6	7	8	9	10
	2015*	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Present Value Iberia	96,63 €	166,32 €	184,64 €	192,78 €	248,91 €						
Terminal Value Iberia						2.419,38 €					
Present Value Emergents	42,04 €	14,09 €	25,18 €	45,57 €	28,15 €	51,81 €	25,95 €	85,22 €	70,19 €	67,41 €	
Terminal Value Emergents											886,52 €
Final Valuation	4.650,80 €										
Net Debt	1.139,50 €										
Equity Valuation	3.511,30 €										
Price per Share	5,43 €										

As it is possible to observe, the DCF valuation process is completed. As stated before, in the final of the first five years (2020), it is proposed a terminal value for Iberia, while in Emergents this only happens in 2025.

Growth tendencies are evident in both segments, also in the Emergents, and in the second part of the explicit period, in the stabilization period, the expansion and all the complementary expenses decrease. In what matters to the Iberian area, it is possible to observe the maturity of the business, as the growths remain low and very constant across time.

With this analysis, it is presented an Enterprise Value of around 4,6 billion euros for the company, which means a value of around 3,5 billion euros for the Equity (Enterprise Value – Net Debt) and a price per share equal to 5,43 euros.

Adjusted Present Value

In order to complete the analysis done in the DCF model, it was also conducted an APV valuation. All the APV steps described in the literature review were followed in this valuation. Since the information available does not differentiate debt between segments, and since debt plays an important role in this model, it was considered only one explicit period of ten years, where it could converge the stabilization periods both from Iberia and Emergent areas. As data for this approach, it was used the one already found for the DCF. Cash-flows were discounted using the cost of equity. To guarantee that this cost of equity would reflect an unlevered cost of capital and the retail market, it was applied the average of the betas of the two segments previously used in the DCF.

Cash-Flows	0	1	2	3	4	5	6	7	8	9	10
(EURm)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
EBIT	390,45 €	429,95 €	443,31 €	488,49 €	536,01 €	581,05 €	612,51 €	608,89 €	685,26 €	730,14 €	752,45 €
Income Tax	124,16 €	122,88 €	135,89 €	152,50 €	177,10 €	205,70 €	205,96 €	243,51 €	267,39 €	295,77 €	339,13 €
Amortisation and depreciation	195,08 €	216,20 €	231,56 €	250,88 €	274,09 €	301,43 €	389,40 €	421,02 €	449,81 €	468,05 €	482,73 €
Impairment	7,80 €	8,65 €	9,26 €	10,04 €	10,96 €	12,06 €	12,98 €	14,03 €	14,99 €	15,60 €	16,09 €
CAPEX	302,58 €	347,93 €	347,26 €	351,14 €	362,44 €	412,96 €	458,17 €	431,59 €	467,38 €	489,06 €	413,87 €
WC Variation	-34,12 €	-71,54 €	-77,31 €	-109,31 €	-4,12 €	-103,14 €	43,32 €	-86,15 €	-54,49 €	-43,78 €	-45,29 €
Free Cash Flow to the Firm	200,71 €	255,52 €	278,29 €	355,06 €	285,64 €	379,02 €	307,45 €	455,00 €	469,77 €	472,75 €	543,56 €
Present Value (Re discounted)	200,71 €	231,22 €	227,89 €	263,11 €	191,55 €	230,00 €	168,83 €	226,10 €	211,25 €	192,37 €	
Terminal value											2.222,46 €
Unlevered Value											4.365,50 €
Total Debt	1.253,87 €	1.375,60 €	1.288,20 €	962,57 €	985,06 €	1.027,92 €	1.106,71 €	1.139,28 €	1.162,96 €	1.215,34 €	1.205,16 €
Interest Expenses	59,54 €	53,34 €	57,43 €	59,12 €	60,35 €	63,07 €	62,54 €	62,47 €	37,17 €	34,37 €	28,49 €
Tax shield	18,64 €	16,70 €	17,98 €	18,51 €	18,89 €	19,75 €	19,58 €	19,56 €	11,64 €	10,76 €	8,92 €
Present Value of Tax Shields	18,64 €	15,88 €	16,25 €	15,90 €	15,43 €	15,33 €	14,45 €	13,73 €	7,76 €	6,82 €	5,38 €
Terminal Value of Tax Shields											51,19 €
Enterprise Value											4.556,89 €
Default Probability (BBB-)		2,30%									
Bankruptcy Cost (%EV)		25%									
Bankruptcy Cost		26,20 €									
Adjusted Present Value											4.530,69 €
Net Debt											1.139,50 €
Equity Valuation											3.417,39 €
Price per Share											5,28 €

In the previous table it showed the steps of computation of the APV. First it was applied here the sum of the two segments found before and a value the FCFF was discovered. In relation to the debt, it was applied the cost of debt found before to the Total Debt and this led to the interests paid. Finally, the tax shield was the result of the product between the interest paid and the tax rate (average of the two rates found before weighted by the level of sales).

As stated in the literature review, the tax shields were discounted by the cost of Debt.

In relation to the bankruptcy costs, it was used the Damodaran's standard Default Probability rate's according to the firm's grade (DIA has a BBB- as grade). Finally, it was assumed a bankruptcy cost of 25%, which is a number that according to Shapiro and Titman represent the full direct and indirect cost of a bankruptcy.

Default Rates by Bond Rating Classes

Bond Rating	Default Rate
D	100.00%
C	80.00%
CC	65.00%
CCC	46.61%
B-	32.50%
B	26.36%
B+	19.28%
BB	12.20%
BBB	2.30%
A-	1.41%
A	0.53%
A+	0.40%
AA	0.28%
AAA	0.01%

Source: "The Adjusted Present Value Approach", Damodaran

The results of this valuation are very close to the DCF outcome as here it was found an Enterprise Value for DIA approximately around 4,5 billion euros, what means a value of around 3,4 billion euros for its equity and a price per share equal to 5,28 euros.

Combined Cash-Flows Approach

An alternative approach was developed but this content will be developed in the Appendixes.

Sensitivity Analysis

In order to test the volatility and the risk associated to variable change it was conducted a Sensitivity analysis on the behavior of three variables: WACC, growth and sales. With these variables, four positive and negative scenarios were built:

- Variation of the WACC
- Variation of the Growth Rate
- Extreme Scenarios
- Sales Growth Variation

To better understand each one of the scenarios and its repercussions we will proceed to an individual analysis.

Variation of the WACC

Variation of the WACC											
WACC (+100 b.p.) #1											
WACC Iberia	9,92%										
WACC Emergents	13,70%										
WACC (-100 b.p.) #2											
WACC Iberia	7,92%										
WACC Emergents	11,70%										
Valuation (EURm)	0	1	2	3	4	5	6	7	8	9	10
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Present Value Iberia	96,63 €	164,81 €	181,29 €	187,57 €	239,98 €						
Terminal Value Iberia						2.052,09 €					
Present Value Emergents	42,04 €	14,44 €	26,48 €	49,11 €	31,11 €	58,71 €	30,15 €	101,52 €	85,73 €	84,41 €	
Terminal Value Emergents											742,20 €
Final Valuation	4.188,28 €										
Present Value Iberia	96,63 €	167,87 €	188,08 €	198,19 €	258,27 €						
Terminal Value Iberia						2.899,87 €					
Present Value Emergents	42,04 €	14,21 €	25,64 €	46,80 €	29,17 €	54,18 €	27,38 €	90,70 €	75,37 €	73,04 €	
Terminal Value Emergents											1.069,09 €
Final Valuation	5.356,52 €										

In this first scenario, the variation was made on the WACC rate and it was responsible for a huge variation in the overall Firm value of the company. The range of values achieved is very high (around 1,2 billion euros). This is a very sensitive variable as its change will cause deep changes (positive or negative) in the expectations around the value of the company.

Variation of the Growth Rate

Variation of the Growth Rate	
Long-term Growth Rate (+50 b.p. and +100 b.p.) #4	
Iberia	1,5%
Emergents	3%
Long-term Growth Rate (-50 b.p. and -100 b.p.) #4	
Iberia	0,5%
Emergents	1%

Valuation (EURm)	0	1	2	3	4	5	6	7	8	9	10
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Present Value Iberia	96,63 €	166,32 €	184,64 €	192,78 €	248,91 €						
Terminal Value Iberia						2.582,48 €					
Present Value Emergents	42,04 €	14,09 €	25,18 €	45,57 €	28,15 €	51,81 €	25,95 €	85,22 €	70,19 €	67,41 €	
Terminal Value Emergents											977,92 €
Final Valuation	4.905,30 €										
Present Value Iberia	96,63 €	166,32 €	184,64 €	192,78 €	248,91 €						
Terminal Value Iberia						2.275,65 €					
Present Value Emergents	42,04 €	14,09 €	25,18 €	45,57 €	28,15 €	51,81 €	25,95 €	85,22 €	70,19 €	67,41 €	
Terminal Value Emergents											810,75 €
Final Valuation	4.431,29 €										

In this case, the target of the variation was the long-term growth rate. This is an important analysis, as it will define the effects of changing the expectations around the company in the long-term. In the positive change it is assumed an increase of 50 b.p. in Iberia and 100 b.p. in Emergents and in the negative change it is assumed a decrease of 50 b.p. in Iberia and 100 b.p. in Emergents.

Analyzing the results, it is possible to state that the variation is not so expressive as in the first but still there is a range of around 500 million euros between the positive and negative case.

Extreme Scenarios

Extreme Scenarios	
Optimistic Scenario #5	
Scenario #2 + Scenario #3	
Pessimistic Scenario #6	
Scenario #1 + Scenario #4	

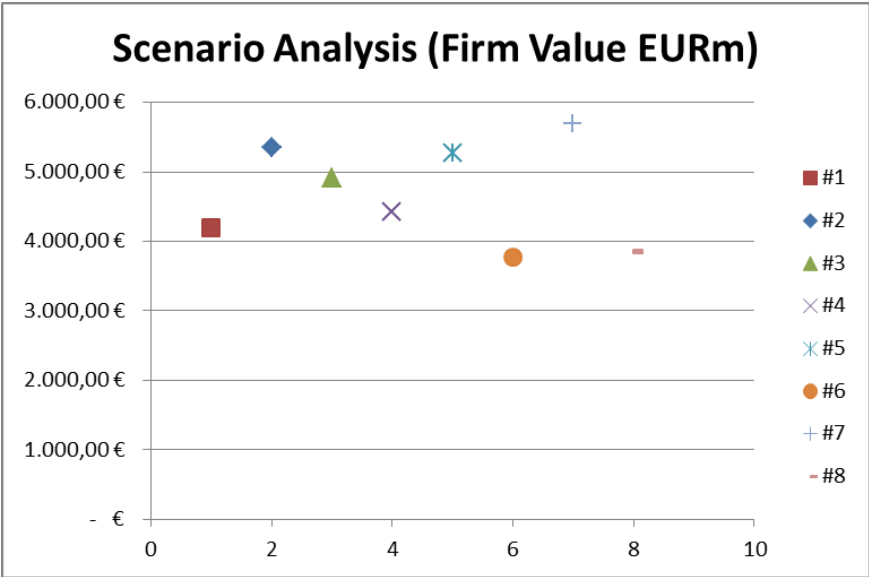
Valuation (EURm)	0	1	2	3	4	5	6	7	8	9	10
	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Present Value Iberia	96,63 €	167,87 €	188,08 €	198,19 €	258,27 €						
Terminal Value Iberia						3.125,84 €					
Present Value Emergents	42,04 €	14,21 €	25,64 €	46,80 €	29,17 €	54,18 €	27,38 €	90,70 €	75,37 €	73,04 €	
Terminal Value Emergents											751,62 €
Final Valuation	5.265,02 €										
Present Value Iberia	96,63 €	164,81 €	181,29 €	187,57 €	239,98 €						
Terminal Value Iberia						1.943,13 €					
Present Value Emergents	42,04 €	14,44 €	26,48 €	49,11 €	31,11 €	58,71 €	30,15 €	101,52 €	85,73 €	84,41 €	
Terminal Value Emergents											431,15 €
Final Valuation	3.768,28 €										

This scenario is a combination of the two positive changes of the first two scenarios in the “Optimistic Scenario” and the two negative changes of the first two scenarios in the “Pessimistic Scenario”. Here, the range found, maximizes the positive and negative effects felt before and creates a range of almost 1,8 billion euros of value.

Sales Growth Variation

Sales Growth Variation		0	1	2	3	4	5	6	7	8	9	10
Valuation (EURm)		2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Optimistic Scenario #7												
Iberia	(+200 b.p.)											
Emergents	(+500 b.p.)											
Pessimistic Scenario #8												
Iberia	(-200 b.p.)											
Emergents	(-500 b.p.)											
Present Value Iberia		87,73 €	160,50 €	182,84 €	194,80 €	259,19 €						
Terminal Value Iberia							2.518,85 €					
Present Value Emergents		60,28 €	33,51 €	47,57 €	73,91 €	55,95 €	83,95 €	54,42 €	131,40 €	116,18 €	115,67 €	
Terminal Value Emergents												1.512,12 €
Final Valuation		5.688,86 €										
Present Value Iberia		105,54 €	171,75 €	185,77 €	189,92 €	237,93 €						
Terminal Value Iberia							2.303,63 €					
Present Value Emergents		23,80 €	3,61 €	6,41 €	23,36 €	8,11 €	25,83 €	5,48 €	48,16 €	35,63 €	32,61 €	
Terminal Value Emergents												457,34 €
Final Valuation		3.857,65 €										

Finally, it was also considered important to model and test the impact of a different sales growth. As a positive scenario it was considered an increase of the yearly sales of 200 b.p. in Iberia and 500 b.p. in Emergents. On the other hand, it was considered as negative scenario the decrease of 200 b.p. and the decrease of 500 b.p. on the sales of Iberia and Emergents, respectively. As it is possible to observe, the impact of the sales change is significant as the range between positive and negative is only around 1,8 billion euros.



Relative Valuation

Introduction

In this Relative Valuation, also known as Market Multiples approach, the objective is also to estimate the Enterprise and Equity Values by comparing financial elements of DIA with ratios extracted from a consistent and solid Peer Group of Companies that share similar attributes with DIA. Important also to state that all the information related to multiples and its concrete value were transposed from Reuters.

In this valuation, both Enterprise and Equity Value Multiples will be used to fully value the firm.

Peer Group

Peer Group
Distribuidora Internacional de Alimentacion SA
Casino Guichard Perrachon SA
Metro AG
J Sainsbury PLC
Carrefour SA
Delhaize Group SA
WM Morrison Supermarkets PLC
Ebro Foods SA
Koninklijke Ahold NV
Jeronimo Martins SGPS SA
Tesco PLC

This Peer Group followed different assumptions were comparing to the computation of the equity beta before. Since we are computing the value of DIA as a whole, only one peer group was chosen. Although the two segments can generate return individually, they only make sense as a whole so this was the main driver to search for the adequate and plausible peer group. Apart from the accounting and financial similarities, this group

should include companies with cross-borders operations, that could reflect, approximately, the same level of risk that DIA faces by being a multinational. By discounting and summing the present value of Cash-Flows it is possible to divide the sources of income by segment, but in this relative valuation, the whole does not represent the sum of the parts as we are dealing directly with value.

In the previous table it is presented the composition of the Peer Group which includes European retailers with operations outside their origin countries, but also similarities in accounting and financial elements. It is also important to remark that all the chosen companies are European, with special focus to the Portuguese, French, English and German markets.

Enterprise Value Multiples

As stated before, these multiples are used to evaluate the total value of the firm and in our case we are using three of the most common ones: Sales to Enterprise Value, EBITDA to Enterprise Value and EBIT to Enterprise Value. Before proceeding to the valuation it would be important to observe the multiples table:

Enterprise Value Multiples	Enterprise Value To Sales	Enterprise Value To EBITDA	Enterprise Value To EBIT
Distribuidora Internacional de Alimentacion SA	0,53	7,92	12,03
Casino Guichard Perrachon SA	0,47	8,06	12,24
Metro AG	0,26	5,16	9,93
J Sainsbury PLC	0,26	4,72	8,47
Carrefour SA	0,44	8,96	14,97
Delhaize Group SA	0,46	7,63	14,16
WM Morrison Supermarkets PLC	0,34	7,31	14,76
Ebro Foods SA	1,43	11,26	14,52
Koninklijke Ahold NV	0,52	8,13	14,65
Jeronimo Martins SGPS SA	0,64	11,22	18,02
Tesco PLC	0,40	15,84	9,83
Final Multiples (Average of the previous values)	0,49	8,83	13,15


As it possible to observe in the table above, the values obtained as final multiples are very close to the values provided in Reuters for DIA (values in green in the table above), so it expected a trustful valuation.

Enterprise Value To Sales 0,49 Sales 2015 DIA, SA 9.198,61 €	EBITDA Value To Enterprise Value 8,83 EBITDA 2015 DIA, SA 558,28 €	EBIT Value To Enterprise Value 13,15 EBIT 2015 DIA, SA 390,45 €
Enterprise Value (EURm) 4.515,54 €	Enterprise Value (EURm) 4.929,87 €	Enterprise Value (EURm) 5.136,25 €
Enterprise Value (EURm) 4.860,56 €	Net Debt (EURm) 1.139,50 €	Equity Value (EURm) 3.721,06 €

As estimation for the value of the company it is found the value of 4.860 million euros, which is very close to the value found in the DCF and leads us to an equity value of 3.721 million euros.

Point Estimation

In this analysis, point estimation will be conducted to confirm the results presented before. To finish the analysis it would be interesting the analysis of these variables with a variation of 10% (up and down) from the average multiple, so that it is possible to identify a closer range of plausible numbers for the value of the firm.

Up Enterprise Value To Sales	0,54	Up EBITDA Value To Enterprise Value	9,71	Up EBIT Value To Enterprise Value	14,47
Down Enterprise Value To Sales	0,44	Down EBITDA Value To Enterprise Value	9,71	Down EBIT Value To Enterprise Value	11,84
Sales 2015 DIA, SA	9.198,61 €	EBITDA 2015 DIA, SA	558,28 €	EBIT 2015 DIA, SA	390,45 €
Up Enterprise Value (EURm)	4.967,09 €	Up Enterprise Value (EURm)	5.422,86 €	Up Enterprise Value (EURm)	5.649,88 €
Down Enterprise Value (EURm)	4.063,99 €	Down Enterprise Value (EURm)	5.422,86 €	Down Enterprise Value (EURm)	4.622,63 €
		Up Enterprise Value (EURm)	5.346,61 €		
		Down Enterprise Value (EURm)	4.703,16 €		
				Up Equity Value (EURm)	4.207,11 €
				Down Equity Value (EURm)	3.563,66 €

Now a much plausible range of values was found, with a difference of around 600 million euros between the down and top values.

Equity Value Multiples

Equity Multiples are used to measure directly the value of the equity of the firm and the chosen ones were: Price-Earnings Ratio, Price Cash-Flow Ratio and the Price-to-Book Value. The same methodology used before for Enterprise Value Multiples is now replicated for Equity Value Multiples:

Equity Value Multiples	Price-Earnings Ratio	Price-Cash Flow Ratio	Price-to-Book Value
Distribuidora Internacional de Alimentacion SA	14,78	-	12,03
Casino Guichard Perrachon SA	16,71	-	12,24
Metro AG	19,35	17,56	9,93
J Sainsbury PLC	11,50	-	8,47
Carrefour SA	17,96	31,35	14,97
Delhaize Group SA	19,15	22,58	14,16
WM Morrison Supermarkets PLC	16,99	13,18	14,76
Ebro Foods SA	19,25	17,59	14,52
Koninklijke Ahold NV	19,84	17,25	14,65
Jeronimo Martins SGPS SA	23,77	22,58	18,02
Tesco PLC	18,80	-	9,83
Final Multiples (Average of the previous values)	17,95	20,30	13,15

Once again here the values found for the multiples were found in the Reuters database terminal.

Price-Earnings Ratio	17,95
Net Income 2015 DIA, SA	221,95 €
Equity Value (EURm)	3.983,58 €

Price-Cash Flow Ratio	20,30
Cash-Flow Firm 2015 DIA, SA	200,71 €
Equity Value (EURm)	4.073,98 €

Price-to-Book Value	13,15
Equity 2014 Dia, SA	207,57 €
Equity Value (EURm)	2.730,56 €

Equity Value (EURm)	3.596,04 €
----------------------------	-------------------

In this case, the valuation made revealed a very close value to the DCF model. This leads us to a valuation of the equity equal to around 3.600 million euros, which is a close value to the ones found until now.

Point Estimation

The same method of the 10% variation was again followed and led to the following results:

Up Equity Value To Sales	19,74
Down Equity Value To Sales	16,15
Net Income 2015 DIA, SA	221,9484474
Up Equity Value (EURm)	4.381,94 €
Down Equity Value (EURm)	3.585,22 €

Up EBITDA Value To Sales	22,33
Down EBITDA Value To Sales	18,27
Cash-Flow Firm 2015 DIA, SA	200,7126617
Up Equity Value (EURm)	4.481,38 €
Down Equity Value (EURm)	3.666,58 €

Up EBIT Value To Sales	14,47
Down EBIT Value To Sales	11,84
Equity 2014 Dia, SA	207,571
Up Equity Value (EURm)	3.003,61 €
Down Equity Value (EURm)	2.457,50 €

Up Equity Value (EURm)	3.955,64 €
Down Equity Value (EURm)	3.236,44 €

In this case the range found confirms the results achieved so far in the other available methods.

Conclusion on Multiples

The analysis on multiples led to two similar results. In the Enterprise Multiples, to find the values it was used accounting elements (Sales, EBITDA and EBIT), which were able to confirm the assumption made and confirmed before in the DCF. On the other hand, Equity Multiples, showed also similar results to the ones found before.

Final Comments about DIA's Valuation

DIA's Valuation	Enterprise Value (EURm)	Equity Value (EURm)	Price per Share
Discounted Cash-Flows	4.650,80 €	3.511,30 €	5,43 €
Adjusted Present Value	4.530,69 €	3.417,39 €	5,28 €
Combined Cash-Flows	4.409,83 €	3.270,33 €	5,05 €
Enterprise Value Multiples	4.860,56 €	3.721,06 €	5,75 €
Equity Multiples	-	3.596,04 €	5,56 €
Final Valuation	4.612,97 €	3.503,22 €	5,41 €

After conducting all the three different methods (Discounted Cash-Flows and Combined Cash-Flows apply the same DCF standards and Multiples are divided between Enterprise and Equity Value) to evaluate and estimate the value of DIA it was found a close range between 4,4 and 4,8 billion euros for the Enterprise Value, so the final value for this variable will be the average of all the five estimates which is equal to 4,61 billion euros. The same applies for the Equity and the Price of Share and the final values found are 3,5 billion for the equity value and 5,41 euros for each share.

For this comparison, it was consulted the Equity Research of DIA published by JP Morgan on the October 28th, 2015.

In relation to sales, particularly the LFL sales, the equity research is more positive than the proposed projections in this thesis in 2016, as, in this year, it is not expected a relevant recovery from 2015 results. Also, according to JP Morgan's report, the years of 2015 and 2016 were and are expected to be years with a lower growth than the previous one and this is due to the combination of the South American crisis (especially in the Brazilian predicted recession) and the failure in Iberia to overcome the increasing market share of its competitors. In relation to 2017, the proposed projections in this thesis are more positive as it is assumed in the equity research of JP Morgan. World Bank estimates, that Brazil will exit recession and that Argentina will regain its growing pace will be a fundamental reason for a better estimate. On the other hand, observing the market and applying the forecasts that the company has nowadays for the future were also important conditions to assume that in 2017 the growth would be higher than the one estimated by JP Morgan.

In what matters to EBITDA, again the equity research is more optimistic than the presented model here. In the equity research, the margin in relation to sales is slightly higher. Also sales

margin, 2016 is seen by the equity research, in the more pessimistic way than the presented estimates and the same rationale applies to the EBIT and its margin. In 2017, as it happens with sales, the projected growth here is more optimistic than the predictions of the investment bank because it is believed by the equity research that Brazilian recovery will be slower and that Argentina's segment will not increase its value so smoothly. On the other hand, Iberian segment will maintain its position in the market. In a last remark, it is also important to state that in the following two years, alongside with the equity research study, it is also defended by the projections presented in the thesis, a reluctance in increasing the margins due to the difficulties faced in both segments to develop and gaining market share in comparison to its competitors.

In terms of leverage (Net Debt/EBITDA), both the equity research and my analysis consider similar assumptions.

As what matters to the overall value of equity, the research presents a quote for the value of the equity equal to approximately 3.759 million euros for the 28th October, which means a price per share equal to 5,81 euros and an estimate of 4,30 euros for the 31th March, 2016. The estimate presented in this paper defends a value for the equity in 1st January 2016 close to 3.503 million euros which means a price per share equal to 5,41. Being in the middle of the two estimates confirms that the results found are plausible.

Appendixes

Complements for the Literature Review

1. Introduction of the Discounted Cash-Flow Method

As said before this is the most common method used worldwide and this was constant fact during History as there are ancient studies that demonstrate that Egyptian and Babylonian mathematicians were used to apply methods similar to this one. Since the practice of borrowing money became usual, in primitive times, in some way, this was the main tool used to compute interest and especially after the stock market crash of 1929 when it was fundamental to have a trustable method to compute the price of stocks. Officially this method was born in “The Theory of interest” from Irvin Fisher (1930) and in John Burr Williams article “The Theory of Investment Value” where it was first demonstrated economically.

2. Deeper approach to the Multiples Valuation

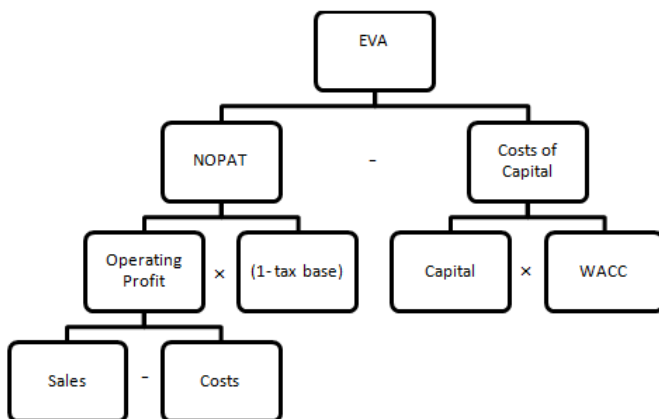
Cyclical Adjusted Equity Multiples

In order to attenuate the possible manipulations of results around the multiples valuation with equity market multiples there is a plausible modification to the original model that will turn the outcome much more realistic. By adjusting the value of earning or book value in an average basis, by computing the average of these values for the past five or ten years before of the analysis it will be possible to overcome the limitation of the possibility of existence of a manipulation to improve the searched results. There is also a drawback in this attempt as by doing this average, it will be much more difficult to capture recent variations on the value of the firm as it is advisable to, apart from doing the average, to compute the value of the multiple individually for each of the years that before were composing the average. By doing this it will be possible to account for the changes in value and analyze whether there was a true gain or loss of value or if it was just a change in the capital structure that determined the range of results found.

3. Other valuation methods: Return Based Valuation

Return Based Valuation

In this approach, the most common method applied is the Economic Value Added (EVA). This method was introduced by Stern Stewart & Co in the nineties, and since then remains as an important tool to evaluate the performance of companies by capturing their “True economic profit”. This measure is based on the comparison of two important financial variables: the operating profit (without taxes) and the cost of capital of the company. By subtracting one to the other it is possible to discover the amount of value added to the firm, its economic profit, during the period in analysis. Stewart (1991), in his work stated that “EVA is the measure that correctly takes into account value creation or destruction in a company as it measures the true financial performance of a company” and this is the best sentence to describe the Economic Value Added. To better understand its mechanics, EVA may be computed as:



Source: managementmania.com

By observing the scheme it is easy to understand the origin of the method and how simple it is to apply it.

To proceed to the formal valuation, the value of the firm can be understood as the Net Present Value of the future EVA (growth of the assets in place and projects) in all future periods, or the as it is shown in the next formula:

$$NPV = \sum_{t=1}^n \frac{EVA_t}{(1 + WACC)^t}$$

Source: finfin.wdfiles.com/local--resized-images/team-4-s-paper/capture5.jpg/medium.jpg

An overall NPV higher than zero means that the projects or expectations will increase the value of the firm and, by happening this, the return on invested capital shall surpass the value of the weighted average cost of capital (WACC) of the company as shown in the previous formula.

To sum up, the principal advantage of the EVA in comparison to other approaches to valuation is that this method not only takes into account the amount of cash generated by the operations of the company, but also takes into account the creation of value to the shareholders and this makes this model unique.

4. Other valuation methods: Contingent Claim Valuation

This particular approach is quite interesting as it bases its analysis in the study of future opportunities. Usually this analysis is based in the valuation of options using the commonly known “Options Theory”. In this way, the valuation of the assets of the firm is based in the evaluation of its options. This approach is very adequate for high technology companies or for fast-growing businesses, Luehrman (1997) comments “Option Pricing methods are most adequate to be used when valuing opportunities”; and because options for the future are countless as everyday there is the chance to make the difference and add or remove value from the firm by the measure done. The adaptability possibilities that options offer are fundamental to increase its value as this impact is not evaluated by the previous analyzed methods. Although it has many advantages, this approach generates discussion between authors as the inputs needed to apply it are very complex. Restrictions like due date, risk (volatility) or cash are needed to perform this valuation properly but in the case of DIA, SA this variables are very difficult to find. On the other hand, nowadays DIA is mainly consolidating its position so it will not make a lot of sense to think in future possibilities as the future

growth tends to be stable. Usually, the analysis of the options has two different approaches to evaluate their value, the binomial and the Black-Scholes methods.

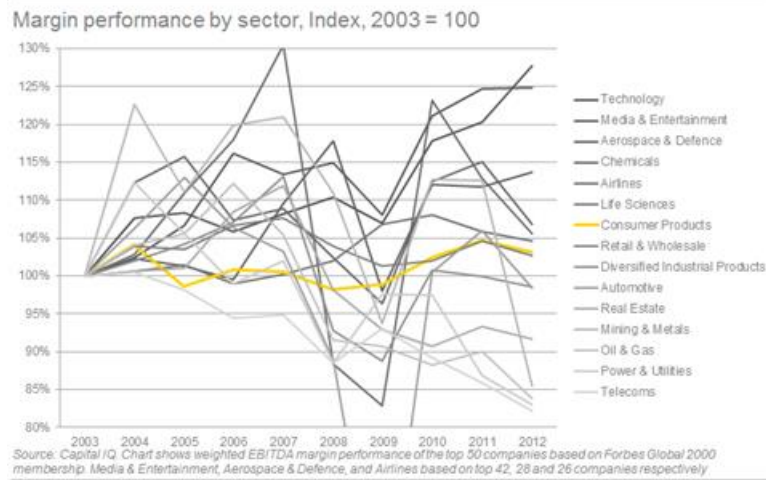
Complements for the Industry Overview

1. FMCG Sector Overview

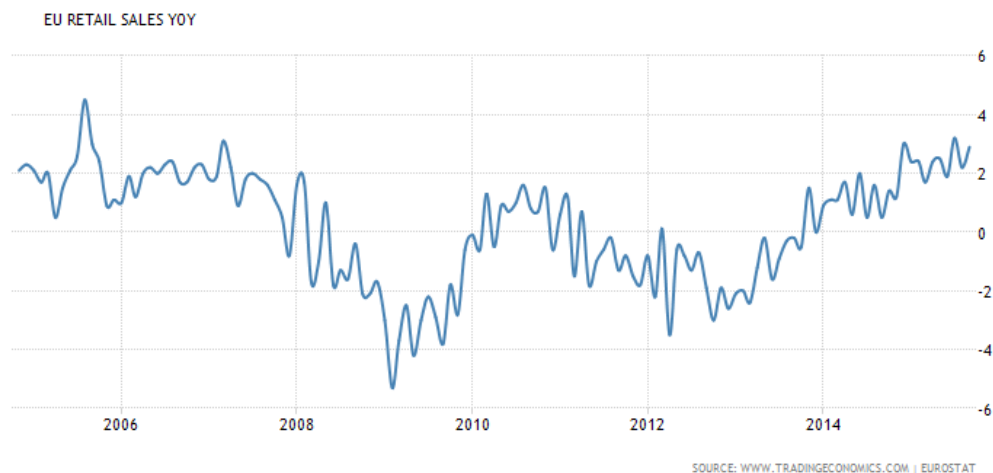
This concept was developed by Neil H. Borden (1996) and defines the sector whose core activity is based on consumer packaged goods. From grocery to hygiene or from household products to electronic devices, these are the items that we can find in this industry. These daily used products have a small financial margin but generate a big return due to the high asset rotation which makes possible high turnover ratios. Although DIA belongs to the retail industry, it is relevant to look at the evolution of this sector as the main core business of DIA resides on sale of the products from this sector.

In a macroeconomic view, according to the Engel Law, if the revenue of a household decreases, the proportion of the income spent on FMCG products is much higher as these products configure themselves as inferior goods (Giffen goods). This is a very important premise for the analysis as the economic situation of the households will not dramatically influence the performance of sales of the firm. If the proportion of the income spent on FMCG goods increase with the decrease of the household revenue then, in economic terms, this means that the amount spent on these goods tend to stay unchanged. Due to these facts and observing the next graph, it is possible to state that this is a stable industry where with low margins it is possible to face hard recession periods and still overperform.

CP margins demonstrate consistency compared to other sectors



As stated before and watching the graph, it is possible to observe the steady state of the FMCG sector as it shown by its margins that almost keep unchanged since 2003. Even the period of the subprime crisis between 2008/09 almost did not provoke any change in the margins, only decreasing slightly its value.



From the previous graph that illustrates the evolution of the retail industry sales, it is easy to conclude that this sector is more unstable than the FMCG, as during the analyzed period the margins of the FMCG kept almost unchanged which suggests some stability in the sector and in opposite situation is the retail sector where its sales were much more volatile during the period, which may be a signal of much more variable margins.

2. Giffen Goods Theory

The definition of Giffen good is connected with its elasticity of demand. In this kind of goods the demand curve has an “upward-sloping” shape and this means that when the price of the goods increase the demand will increase. Giffen goods are usually inferior products with no substitutes, where “income effect dominates the substitution effect”. These kinds of goods are very rare and the most used example to explained is the “Irish Potato Famine”, in the 19th century.

Complements for the Company Overview

1. General overview

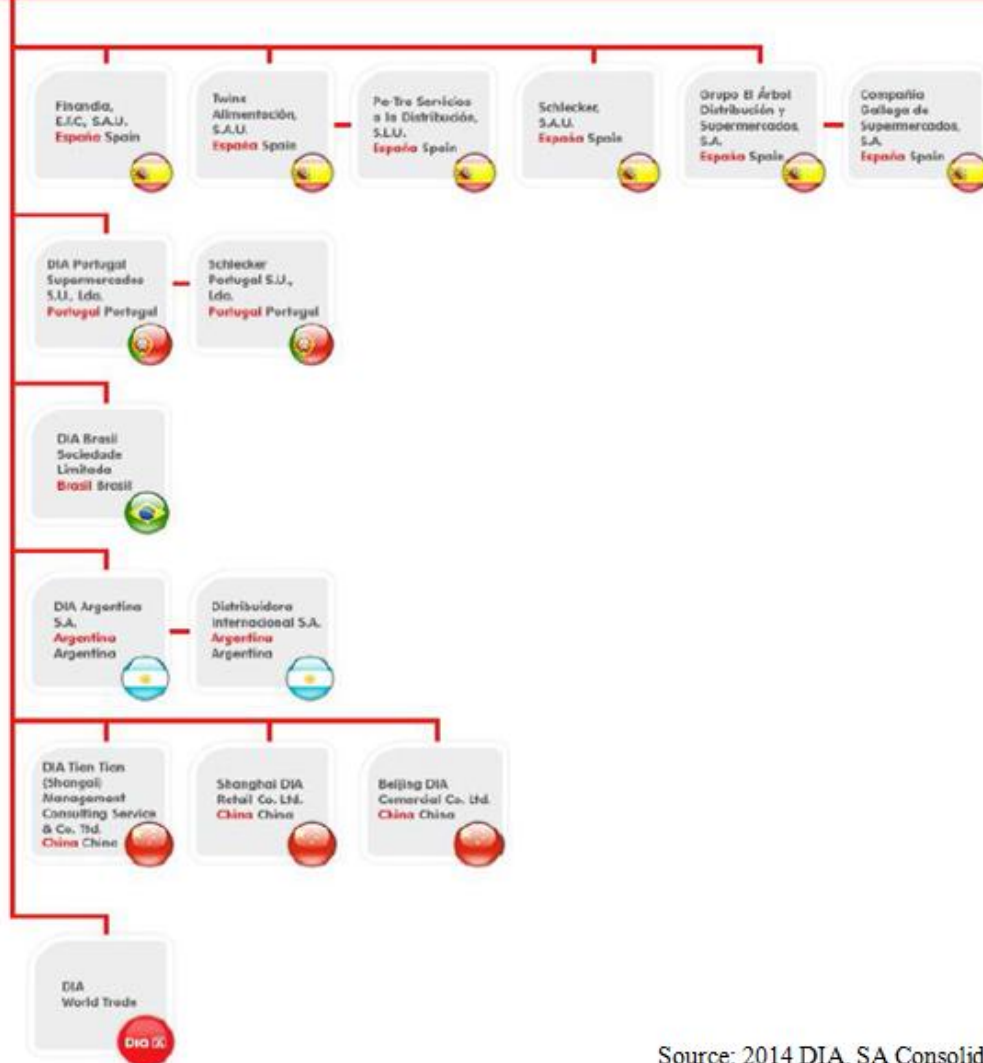
The firm had already important participations in Turkey and in France (partnership with Carrefour) but all these shares were sold. DIA possesses two ways of conducting operations: own stores or franchised stores. Its activity is based on a hard-discount offering and is, in its majority, located on the suburban areas, where the demand for this specific type of stores is higher. DIA main goal is the constant bet in building a consistent network of proximity stores and this is the driver that most effectively conducts the operations of the firm. During the most recent years DIA developed new ways to approach the market and for that created several new concepts of stores that were, in a much more efficient way, able to face the new needs of the market. In these new types of store, we should emphasize:

- **DIA Market:** this represents the most standard type of supermarket and it is characterized for being located in big open spaces. Here are available all the complete range of DIA’s products.
- **DIA Fresh:** This is typical proximity store that emphasizes the concept of freshness and for that reason it is located mainly on urban areas where the access to this type of goods is harder.
- **DIA Maxi:** This is the most wide and large store of DIA that concentrates all the variety of DIA’s products. It is usually located outside the center of towns and possesses its own parking lot.

- **DIA La Plaza:** These stores represent the most effective approach to the traditional concept of market. With a familiar and friendly environment it focuses its efforts in bringing the biggest variety possible of fresh products.
- **Max Descuento:** This is a store specialized for professionals and sells directly to retailers. Possesses an own service of delivery that reveals itself to be an essential tool for its clients.
- **Clarel:** This new concept of store is a reference of proximity and focuses its business in beauty, health and home products and represents the investment of the firms in new lines of activity.
- **El Árbol:** This is a similar store to DIA Fresh and its only located in the regions of Castilla y León, Aragón, Asturias and Galicia.
- **Cada DIA:** This store is directly focuses to small communities and villages and represents the effort of DIA to exit urban and suburban areas and spread its influence wider.
- **Minipreço:** This is the brand of DIA present in Portugal and can be defined as similar to “DIA Market”.
- **Mais Perto:** Like “Cada DIA”, also this store focuses in areas outside towns in Portugal. In Portugal this store represents a competitor to “Amanhecer” stores, which are also small grocery stores owned by Jerónimo Martins.

Corporate Structure

DIA, SA follows a very simple way of organization where all the geographical departments play in a horizontal hierarchy structure that is subject to the company’s headquarters in Madrid. In the following picture it is possible to observe how flat is the organization and how is each department connected between themselves:



Source: 2014 DIA, SA Consolidated Accounts Report

Financial Statements of DIA

1. Historical Balance Sheets of DIA

(Thousands of Euros)	30th June** 2015	31st December 2014	31st December 2013	31st December 2012	31st December 2011	31st December 2010
ASSETS						
Property, plant and equipment	1.370.949,00 €	1.270.356,00 €	1.601.651,00 €	1.618.631,00 €	1.625.960,00 €	1.597.421,00 €
Goodwill	528.832,00 €	464.642,00 €	454.388,00 €	422.966,00 €	416.543,00 €	414.435,00 €
Other intangible assets	32.078,00 €	32.567,00 €	45.613,00 €	38.377,00 €	44.376,00 €	45.419,00 €
Investments accounted for using	- €	- €	787,00 €	1.303,00 €	1.599,00 €	108,00 €
Non-current financial assets	101.601,00 €	81.162,00 €	79.086,00 €	65.253,00 €	57.668,00 €	51.665,00 €
Consumer loans from financial	408,00 €	363,00 €	555,00 €	1.037,00 €	1.973,00 €	3.191,00 €
Deferred tax assets	144.505,00 €	14.789,00 €	57.667,00 €	54.550,00 €	58.191,00 €	29.283,00 €
Non-current assets	2.178.373,00 €	1.996.980,00 €	2.239.747,00 €	2.202.117,00 €	2.206.310,00 €	2.141.522,00 €
Inventories	601.029,00 €	553.119,00 €	544.867,00 €	527.066,00 €	521.926,00 €	539.303,00 €
Trade and other receivables	365.119,00 €	244.592,00 €	209.661,00 €	179.556,00 €	191.254,00 €	178.983,00 €
Consumer loans from financial	6.532,00 €	6.362,00 €	5.698,00 €	5.444,00 €	5.364,00 €	5.634,00 €
Current tax assets	133.942,00 €	10.694,00 €	77.651,00 €	80.218,00 €	61.705,00 €	38.392,00 €
Other current financial assets	12.297,00 €	12.144,00 €	10.714,00 €	30.643,00 €	18.981,00 €	21.615,00 €
Other assets	9.197,00 €	7.836,00 €	14.112,00 €	15.299,00 €	141,00 €	11.097,00 €
Cash and cash equivalents	177.959,00 €	199.004,00 €	262.037,00 €	350.425,00 €	289.943,00 €	316.842,00 €
Non-current assets held for sale	- €	10,00 €	6.100,00 €	13.875,00 €	- €	- €
Current assets	1.306.075,00 €	1.130.007,00 €	1.130.840,00 €	1.202.526,00 €	1.103.273,00 €	1.111.866,00 €
TOTAL ASSETS	3.484.448,00 €	3.126.987,00 €	3.370.587,00 €	3.404.643,00 €	3.309.583,00 €	3.253.388,00 €
**(Unaudited)						

(Thousands of Euros)	30th June** 2015	31st December 2014	31st December 2013	31st December 2012	31st December 2011	31st December 2010
EQUITY AND LIABILITIES						
Capital	65.107,00 €	65.107,00 €	65.107,00 €	67.934,00 €	67.934,00 €	3.899,00 €
Share premium	144.844,00 €	618.157,00 €	618.157,00 €	618.157,00 €	618.157,00 €	848.533,00 €
Reserves	125.477,00 €	553.059,00 €	659.648,00 €	624.624,00 €	648.968,00 €	565.396,00 €
Other own equity instruments	- 133.889,00 €	- 36.037,00 €	- 10.510,00 €	- 53.089,00 €	37.066,00 €	- €
Net profit for the period	63.378,00 €	329.229,00 €	209.259,00 €	157.884,00 €	98.462,00 €	122.149,00 €
Traslation differences	- 57.315,00 €	- 45.836,00 €	- 37.909,00 €	- 13.516,00 €	86,00 €	4.594,00 €
Value adjustments due to cash flow hedges	32,00 €	55,00 €	820,00 €	647,00 €	167,00 €	20,00 €
Equity attributable to equity holders of the Parent	207.634,00 €	377.616,00 €	183.636,00 €	152.099,00 €	98.772,00 €	430.283,00 €
Non-controlling interests	- 63,00 €	- 46,00 €	- €	- 4.436,00 €	5.844,00 €	- 7.794,00 €
Total Equity	207.571,00 €	377.570,00 €	183.636,00 €	147.663,00 €	104.616,00 €	422.489,00 €
Non-current borrowings	533.920,00 €	532.532,00 €	700.672,00 €	553.112,00 €	599.656,00 €	27.994,00 €
Provisions	81.923,00 €	86.100,00 €	7.257,00 €	100.630,00 €	168.975,00 €	184.433,00 €
Other non-current financial liabilities	12.291,00 €	7.539,00 €	8.245,00 €	- €	4.199,00 €	3.445,00 €
Deferred tax liabilities	3.471,00 €	2.749,00 €	57.978,00 €	115.509,00 €	85.614,00 €	10.377,00 €
Non-current liabilities	631.605,00 €	628.920,00 €	839.465,00 €	769.251,00 €	854.245,00 €	222.804,00 €
Current borrowings	559.533,00 €	199.912,00 €	212.328,00 €	426.623,00 €	266.146,00 €	540.459,00 €
Trade and other payables	1.768.752,00 €	1.693.113,00 €	1.786.884,00 €	1.758.570,00 €	1.780.233,00 €	1.726.110,00 €
Current tax liabilities	55.291,00 €	82.440,00 €	141.837,00 €	118.460,00 €	117.313,00 €	106.820,00 €
Current income tax liabilities	8.875,00 €	8.747,00 €	18.702,00 €	7.208,00 €	6.851,00 €	23.489,00 €
Other current financial liabilities	252.769,00 €	136.189,00 €	156.679,00 €	154.687,00 €	178.287,00 €	208.190,00 €
Liabilities directly associated with non-current assets held for sale	52,00 €	96,00 €	31.056,00 €	22.181,00 €	1.892,00 €	2.547,00 €
Current liabilities	2.645.272,00 €	2.120.497,00 €	2.347.486,00 €	2.487.729,00 €	2.350.722,00 €	2.608.095,00 €
TOTAL EQUITY AND LIABILITIES	3.484.448,00 €	3.126.987,00 €	3.370.587,00 €	3.404.643,00 €	3.309.583,00 €	3.253.388,00 €
**(Unaudited)						

2. Historical Income Statements of DIA

(Thousands of Euros)	30th June** 2015	31st December 2014	31st December 2013	31st December 2012	31st December 2011	31st December 2010
INCOME STATEMENT						
Sales	4.341.978,00 €	8.010.967,00 €	7.945.581,00 €	9.707.554,00 €	9.728.544,00 €	9.588.045,00 €
Other income	41.815,00 €	10.525,00 €	94.260,00 €	131.793,00 €	114.953,00 €	84.951,00 €
TOTAL INCOME	4.383.793,00 €	8.021.492,00 €	8.039.841,00 €	9.839.347,00 €	9.843.497,00 €	9.672.996,00 €
Goods and other consumables used	3.422.404,00 €	6.350.221,00 €	6.312.374,00 €	7.754.444,00 €	7.752.534,00 €	7.621.858,00 €
Personnel expenses	412.787,00 €	660.282,00 €	628.497,00 €	781.545,00 €	803.687,00 €	796.007,00 €
Operating expenses	325.356,00 €	58.012,00 €	549.847,00 €	708.094,00 €	779.770,00 €	776.408,00 €
Amortisation and depreciation	102.372,00 €	184.604,00 €	188.951,00 €	268.940,00 €	277.388,00 €	292.321,00 €
Impairment	2.572,00 €	5.525,00 €	1.501,00 €	7.648,00 €	9.022,00 €	8.000,00 €
Losses on disposal of fixed assets	3.562,00 €	11.558,00 €	7.636,00 €	10.539,00 €	4.295,00 €	40.359,00 €
RESULTS FROM OPERATING ACTIVITIES	114.740,00 €	323.907,00 €	354.037,00 €	308.137,00 €	216.801,00 €	138.043,00 €
Finance income	3.377,00 €	16.447,00 €	13.310,00 €	26.211,00 €	8.614,00 €	5.945,00 €
Finance expenses	29.768,00 €	57.259,00 €	46.209,00 €	52.052,00 €	44.006,00 €	18.628,00 €
Profit of financial instruments	- €	103,00 €	- €	85,00 €	- €	600,00 €
Profit of companies accounted for using the equity method	- €	- €	- €	1.070,00 €	870,00 €	- €
PROFIT BEFORE TAX FROM CONTINUING OPERATIONS	88.349,00 €	283.198,00 €	321.138,00 €	283.281,00 €	182.279,00 €	124.760,00 €
Income tax	24.988,00 €	74.556,00 €	100.811,00 €	101.839,00 €	- €	87.207,00 €
PROFIT AFTER TAX FROM CONTINUING OPERATIONS	63.361,00 €	208.642,00 €	220.327,00 €	181.442,00 €	98.830,00 €	37.553,00 €
Gains net of taxes of discontinued operations	- €	120.582,00 €	24.269,00 €	35.056,00 €	4.456,00 €	79.341,00 €
NET PROFIT	63.361,00 €	329.224,00 €	196.058,00 €	146.386,00 €	94.374,00 €	116.894,00 €

3. Historical Cash-Flow Statement of DIA

(Thousands of Euros)	30th June** 2015	31st December 2014	31st December 2013	31st December 2012	31st December 2011	31st December 2010
Operating activities						
PROFIT BEFORE TAX FROM CONTINUING OPERATIONS	88.349,00 €	283.198,00 €	286.424,00 €	255.684,00 €	1.777.823,00 €	124.760,00 €
Loss before tax from discontinued operations	- €	- 59.133,00 €	16.181,00 €	- 7.459,00 €	- €	- €
Profit before income tax	88.349,00 €	224.065,00 €	302.605,00 €	248.225,00 €	177.823,00 €	204.278,00 €
Adjustments to Profit and Loss:	125.795,00 €	425.493,00 €	250.896,00 €	269.381,00 €	315.091,00 €	277.684,00 €
Amortisation and depreciation	102.372,00 €	184.604,00 €	266.886,00 €	279.115,00 €	278.784,00 €	292.321,00 €
Impairment	2.572,00 €	5.525,00 €	4.601,00 €	8.196,00 €	8.989,00 €	8.000,00 €
Losses on disposal of fixed assets	3.562,00 €	11.558,00 €	10.642,00 €	12.061,00 €	4.367,00 €	40.359,00 €
Gains on disposal of financial instruments operations	- €	- 103,00 €	105,00 €	- 18.196,00 €	- €	- €
Finance income	- 3.377,00 €	- 16.447,00 €	- 9.822,00 €	- 8.367,00 €	- 9.057,00 €	- 5.945,00 €
Finance expenses	29.768,00 €	57.259,00 €	49.467,00 €	59.514,00 €	44.780,00 €	18.628,00 €
Net reversals of provisions and grants	- 5.830,00 €	30.179,00 €	- 44.171,00 €	- 72.961,00 €	- 17.171,00 €	7.782,00 €
Other adjustments to Profit and Loss	- 3.272,00 €	152.918,00 €	- 26.258,00 €	11.089,00 €	4.399,00 €	- 83.461,00 €
Profit/(loss) of companies accounted for using the equity method net of dividends	- €	- €	11,00 €	- 107,00 €	- €	59.409,00 €
Adjustments to working capital:	- 161.340,00 €	- 264.392,00 €	- 85.638,00 €	- 93.884,00 €	- 23.466,00 €	59.409,00 €
Changes in trade and other receivables	- 115.000,00 €	- 41.481,00 €	- 30.608,00 €	16.471,00 €	- 9.587,00 €	- 54.020,00 €
Changes in inventories	- 47.910,00 €	- 66.695,00 €	- 18.649,00 €	- 9.847,00 €	18.857,00 €	1.928,00 €
Changes in trade and other payables	75.799,00 €	- 52.857,00 €	70.411,00 €	- 1.514,00 €	51.386,00 €	105.593,00 €
Changes in consumer loan and refinancing commitments	- 215,00 €	- 472,00 €	227,00 €	856,00 €	1.008,00 €	- 3.330,00 €
Changes in other assets	- 26.986,00 €	- 24.523,00 €	- 7.465,00 €	- 6.176,00 €	- 5.588,00 €	16.363,00 €
Changes in other liabilities	- 25.304,00 €	7.098,00 €	15.651,00 €	- 5.964,00 €	9.371,00 €	5.231,00 €
Changes in assets held for sale and liabilities	- 58,00 €	15,00 €	1.615,00 €	111,00 €	- €	- €
Current income tax paid	- 21.666,00 €	- 76.631,00 €	- 116.820,00 €	- 8.882,00 €	- 88.913,00 €	- 12.356,00 €
Net cash flows from/(used in) operating activities	52.804,00 €	385.166,00 €	467.863,00 €	423.722,00 €	469.448,00 €	541.369,00 €
Investing activities						
Acquisition of intangible assets	- 66.607,00 €	- 2.322,00 €	- 4.757,00 €	- 9.565,00 €	- 15.714,00 €	- 10.026,00 €
Acquisition of property, plant and equipment	- 222.521,00 €	- 341.874,00 €	- 348.939,00 €	- 321.522,00 €	- 334.187,00 €	- 280.015,00 €
Acquisition of financial instruments	- 19.741,00 €	- 25.989,00 €	867,00 €	- 10.224,00 €	- 6.352,00 €	- 6.480,00 €
Development cost	- 1.236,00 €	- 5.212,00 €	- 8.107,00 €	- 668,00 €	- €	- €
Changes in Fixed Assets Suppliers	- 317,00 €	1.933,00 €	9.397,00 €	- 21.542,00 €	- €	- €
Disposals of intangible assets	- €	- €	100,00 €	82,00 €	3.586,00 €	- €
Disposals of property, plant and equipment	1.339,00 €	656,00 €	1.945,00 €	4.114,00 €	10.777,00 €	6.184,00 €
Disposals of financial instruments	- €	2.832,00 €	27.334,00 €	- €	- €	96.335,00 €
Payments for other financial assets	5.602,00 €	2.714,00 €	21.685,00 €	- 5.449,00 €	33.030,00 €	- 7.339,00 €
Interest received	2.204,00 €	6.974,00 €	24.236,00 €	24.673,00 €	7.559,00 €	3.018,00 €
Investing flows of discontinued operations	10,00 €	242,00 €	286,00 €	- €	- €	- €
Other adjustments on disposal of subsidiaries	- €	- 184.229,00 €	4.549,00 €	221,00 €	- €	- €
Acquisition of subsidiaries net of cash acquired	- €	6.464,00 €	- 55.971,00 €	- €	- 38.620,00 €	- €
Net cash flows used in investing activities	- 301.267,00 €	- 240.046,00 €	- 353.506,00 €	- 339.880,00 €	- 339.921,00 €	- 198.323,00 €
Financing activities						
Dividends distributed to shareholders of the Parent	- €	- 103.281,00 €	- 83.865,00 €	- 72.498,00 €	- 368.600,00 €	532.000,00 €
Acquisition of own shares	- 103.610,00 €	- 37.166,00 €	- 45.749,00 €	- 23.971,00 €	- 39.400,00 €	- €
Borrowings repaid	354.315,00 €	- 534.158,00 €	- 268.177,00 €	- €	- 559.541,00 €	- 221.924,00 €
Borrowings made	- €	519.942,00 €	230,00 €	111.365,00 €	850.642,00 €	452.000,00 €
Payments/(Collections) for other financial liabilities	- 70,00 €	612,00 €	- 2.784,00 €	- 2.768,00 €	- 32.362,00 €	14.156,00 €
Interest paid	- 29.350,00 €	- 47.905,00 €	- 47.496,00 €	- 55.468,00 €	- 43.222,00 €	- 4.252,00 €
Financing flows of discontinued operations	- €	- 13.884,00 €	10.465,00 €	132,00 €	- €	- €
Net cash flows from financing activities	221.285,00 €	- 21.584,00 €	- 207.606,00 €	- 4.202,00 €	- 176.588,00 €	- 292.020,00 €
Net changes in cash and cash equivalents	- 27.178,00 €	- 7.072,00 €	- 93.249,00 €	41.822,00 €	- 47.061,00 €	51.028,00 €
Net foreign exchange differences	6.133,00 €	7.687,00 €	40.413,00 €	1.866,00 €	20.162,00 €	15.038,00 €
Cash and cash equivalents at 1st January	199.004,00 €	262.037,00 €	314.873,00 €	289.943,00 €	316.842,00 €	250.778,00 €
Cash and cash equivalents a 31st June	177.959,00 €	199.004,00 €	262.037,00 €	350.425,00 €	289.943,00 €	316.842,00 €
**(Unaudited)						

4. Forecasted Balance Sheet for DIA

	31st December 2015	31st December 2016	31st December 2017	31st December 2018	31st December 2019	31st December 2020	31st December 2021	31st December 2022	31st December 2023	31st December 2024	31st December 2025
Net Fixed Assets	1.402,62 €	1.525,71 €	1.632,15 €	1.722,37 €	1.799,77 €	1.899,23 €	1.955,02 €	1.951,55 €	1.954,13 €	1.959,53 €	1.874,58 €
Goodwill	464,64 €	464,64 €	464,64 €	464,64 €	464,64 €	464,64 €	464,64 €	464,64 €	464,64 €	464,64 €	464,64 €
Investments accounted for using	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €
Non-current financial assets	81,16 €	81,16 €	81,16 €	81,16 €	81,16 €	81,16 €	81,16 €	81,16 €	81,16 €	81,16 €	81,16 €
Consumer loans from financial	0,35 €	0,39 €	0,42 €	0,45 €	0,50 €	0,55 €	0,59 €	0,64 €	0,68 €	0,71 €	0,73 €
Deferred tax assets	14,79 €	14,79 €	14,79 €	14,79 €	14,79 €	14,79 €	14,79 €	14,79 €	14,79 €	14,79 €	14,79 €
Non-current assets	1.963,57 €	2.086,69 €	2.193,16 €	2.283,42 €	2.360,86 €	2.460,37 €	2.516,20 €	2.512,78 €	2.515,40 €	2.520,83 €	2.435,91 €
Inventories	611,96 €	635,28 €	659,49 €	684,62 €	710,70 €	737,79 €	765,90 €	795,08 €	825,38 €	856,83 €	889,48 €
Trade and other receivables	382,44 €	397,01 €	412,14 €	427,84 €	444,15 €	461,07 €	478,64 €	496,88 €	515,81 €	535,46 €	555,87 €
Consumer loans from financial	6,20 €	6,87 €	7,36 €	7,97 €	8,71 €	9,58 €	10,31 €	11,15 €	11,91 €	12,39 €	12,78 €
Current tax assets	10,69 €	10,69 €	10,69 €	10,69 €	10,69 €	10,69 €	10,69 €	10,69 €	10,69 €	10,69 €	10,69 €
Other current financial assets	12,14 €	12,14 €	12,14 €	12,14 €	12,14 €	12,14 €	12,14 €	12,14 €	12,14 €	12,14 €	12,14 €
Other assets	9,93 €	11,01 €	11,79 €	12,77 €	13,96 €	15,35 €	16,52 €	17,86 €	19,09 €	19,86 €	20,48 €
Cash and cash equivalents	199,00 €	199,00 €	199,00 €	199,00 €	199,00 €	199,00 €	199,00 €	199,00 €	199,00 €	199,00 €	199,00 €
Non-current assets held for sale	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €	- €
Current assets	1.232,37 €	1.272,01 €	1.312,61 €	1.355,04 €	1.399,35 €	1.445,62 €	1.493,21 €	1.542,81 €	1.594,02 €	1.646,39 €	1.700,45 €
TOTAL ASSETS	3.195,94 €	3.358,70 €	3.505,77 €	3.638,47 €	3.760,21 €	3.905,99 €	4.009,41 €	4.055,59 €	4.109,42 €	4.167,22 €	4.136,35 €

	31st December 2015	31st December 2016	31st December 2017	31st December 2018	31st December 2019	31st December 2020	31st December 2021	31st December 2022	31st December 2023	31st December 2024	31st December 2025
Capital, Share premium, Reserves and other equity	94,17 €	94,17 €	94,17 €	94,17 €	94,17 €	94,17 €	94,17 €	94,17 €	94,17 €	94,17 €	94,17 €
Net profit for the period	206,75 €	257,45 €	253,90 €	279,44 €	300,08 €	313,12 €	343,28 €	304,21 €	378,16 €	396,51 €	382,09 €
Traslation differences	0	0	0	0	0	0	0	0	0	0	0
Value adjustments due to cash flow hedges	0,06 €	0,06 €	0,06 €	0,06 €	0,06 €	0,06 €	0,06 €	0,06 €	0,06 €	0,06 €	0,06 €
Equity attributable to equity holders of the Parent	377,62 €	377,62 €	377,62 €	377,62 €	377,62 €	377,62 €	377,62 €	377,62 €	377,62 €	377,62 €	377,62 €
Non-controlling interests	- 0,05 €	- 0,05 €	- 0,05 €	- 0,05 €	- 0,05 €	- 0,05 €	- 0,05 €	- 0,05 €	- 0,05 €	- 0,05 €	- 0,05 €
Total Equity	300,98 €	351,68 €	348,12 €	373,67 €	394,31 €	407,34 €	437,50 €	398,44 €	849,95 €	868,31 €	853,88 €
Non-current borrowings	532,53 €	532,53 €	532,53 €	532,53 €	532,53 €	532,53 €	532,53 €	532,53 €	532,53 €	532,53 €	532,53 €
Provisions	86,10 €	86,10 €	86,10 €	86,10 €	86,10 €	86,10 €	86,10 €	86,10 €	86,10 €	86,10 €	86,10 €
Other non-current financial liabilities	7,54 €	7,54 €	7,54 €	7,54 €	7,54 €	7,54 €	7,54 €	7,54 €	7,54 €	7,54 €	7,54 €
Deferred tax liabilities	2,75 €	2,75 €	2,75 €	2,75 €	2,75 €	2,75 €	2,75 €	2,75 €	2,75 €	2,75 €	2,75 €
Non-current liabilities	628,92 €	628,92 €	628,92 €	628,92 €	628,92 €	628,92 €	628,92 €	628,92 €	628,92 €	628,92 €	628,92 €
Trade and other payables	1.816,16 €	1.885,37 €	1.957,21 €	2.031,79 €	2.109,21 €	2.189,58 €	2.273,01 €	2.359,62 €	2.449,53 €	2.542,87 €	2.639,77 €
Current tax liabilities	114,27 €	126,64 €	135,64 €	146,95 €	160,55 €	176,57 €	190,08 €	205,51 €	219,57 €	228,47 €	235,63 €
Current income tax liabilities	6,67 €	7,40 €	7,92 €	8,58 €	9,38 €	10,31 €	11,10 €	12,00 €	12,82 €	13,34 €	13,76 €
Current Liabilities and other current financial liabilities	328,84 €	358,61 €	427,87 €	448,46 €	457,76 €	493,18 €	468,69 €	451,00 €	- 51,47 €	- 114,79 €	- 235,71 €
Liabilities directly associated with non-current assets held for sale	0,10 €	0,10 €	0,10 €	0,10 €	0,10 €	0,10 €	0,10 €	0,10 €	0,10 €	0,10 €	0,10 €
Current liabilities	2.266,04 €	2.378,10 €	2.528,73 €	2.635,88 €	2.736,99 €	2.869,73 €	2.942,98 €	3.028,23 €	2.630,55 €	2.669,99 €	2.653,55 €
TOTAL EQUITY AND LIABILITIES	3.195,94 €	3.358,70 €	3.505,77 €	3.638,47 €	3.760,21 €	3.905,99 €	4.009,41 €	4.055,59 €	4.109,42 €	4.167,22 €	4.136,35 €

5. Forecasted Income Statements for DIA

IBERIA																		
(EURm)	2009	2010	2011	2012	2013	2014	3Q 2015	2015*	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Gross sales under banner	-	5.526,80 €	5.600,00 €	5.868,90 €	6.143,40 €	6.095,50 €	5.001,80 €	6.357,61 €	6.624,63 €	6.896,24 €	7.172,09 €	7.458,97 €	7.720,03 €	7.951,63 €	8.110,67 €	8.272,88 €	8.438,34 €	8.607,10 €
of which Schlecker/Clarel	-	0,00 €	0,00 €	0,00 €	291,70 €	316,10 €	0,00 €	331,91 €	345,85 €	360,02 €	374,43 €	389,40 €	403,03 €	415,12 €	423,43 €	431,89 €	440,53 €	449,34 €
of which El Arbol	-	0,00 €	0,00 €	0,00 €	0,00 €	133,50 €	640,50 €	854,00 €	864,25 €	873,75 €	882,49 €	891,32 €	895,77 €	895,77 €	886,82 €	877,95 €	869,17 €	860,48 €
LFL gross sales under banner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net sales	-	4.938,10 €	4.947,10 €	5.117,50 €	5.283,70 €	5.221,60 €	4.274,50 €	5.433,16 €	5.630,93 €	5.792,84 €	6.024,55 €	6.190,94 €	6.330,43 €	6.361,31 €	6.488,53 €	6.618,30 €	6.750,67 €	6.885,68 €
Net sales (%Gross Sales)	-	89,3%	88,3%	87,2%	86,0%	85,7%	85,5%	85,5%	85,0%	84,0%	84,0%	83,0%	82,0%	80,0%	80,0%	80,0%	80,0%	80,0%
Adjusted EBITDA	-	374,90 €	413,70 €	456,90 €	504,70 €	498,90 €	358,00 €	488,98 €	512,41 €	532,94 €	560,28 €	581,95 €	601,39 €	610,69 €	622,90 €	635,36 €	648,06 €	661,03 €
Adjusted EBITDA margin (%Net Sales)	-	7,6%	8,4%	8,9%	9,6%	9,6%	8,4%	9,0%	9,1%	9,2%	9,3%	9,4%	9,5%	9,6%	9,6%	9,6%	9,6%	9,6%
Amortisation and depreciation	-	163,61 €	175,24 €	210,44 €	120,31 €	104,36 €	60,17 €	125,71 €	122,46 €	115,88 €	107,61 €	93,63 €	92,42 €	108,13 €	126,59 €	127,39 €	129,21 €	160,63 €
Impairment	-	4,48 €	5,70 €	5,98 €	0,96 €	3,12 €	1,51 €	5,03 €	4,90 €	4,64 €	4,30 €	3,75 €	3,70 €	3,60 €	4,22 €	4,25 €	4,31 €	5,35 €
Adjusted EBIT	-	214,10 €	256,20 €	300,00 €	352,20 €	353,70 €	237,30 €	358,25 €	385,05 €	412,42 €	448,37 €	484,57 €	505,28 €	498,95 €	492,09 €	503,72 €	514,54 €	495,05 €
Adjusted EBIT margin	-	4,3%	5,2%	5,9%	6,7%	6,8%	5,6%	5,6%	5,8%	6,0%	6,3%	6,5%	6,5%	6,3%	6,1%	6,1%	6,1%	5,8%

Emerging Markets																		
(EURm)	2009	2010	2011	2012	2013	2014	3Q 2015	2015*	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Gross sales under banner	-	2468,3	2878,8	2896	3153,5	3304,5	2841	3634,95	4180,193	4890,825	5820,082	6984,098	8171,395	9315,39	10340,08	11063,89	11506,44	11966,7
LFL gross sales under banner	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Net sales	-	2131,5	2475,5	2450,5	2661,9	2789,4	2370,1	3017,009	3469,56	4010,477	4772,467	5726,961	6618,83	7545,466	8375,468	8851,111	9205,156	9573,362
Net sales (%Gross Sales)	-	86%	86%	85%	84%	84%	83%	83%	83%	82%	82%	82%	81%	81%	81%	80%	80%	80%
Adjusted EBITDA -1	-	35,9	56,2	65	76,6	86,4	69,3	102,5783	128,3737	160,4191	200,4436	263,4402	330,9415	407,4552	485,7771	548,7689	607,5403	670,1353
Adjusted EBITDA margin	-	1,70%	2,30%	2,70%	2,90%	3,10%	2,90%	3,4%	3,7%	4,0%	4,2%	4,6%	5,0%	5,4%	5,8%	6,2%	6,6%	7,0%
Amortisation and depreciation	-	123,5895	139,6142	143,1727	86,64504	57,59174	42,20394	56,27191	93,73538	115,6776	143,2674	180,4512	209,0177	281,2725	294,4273	322,4235	338,8387	322,0996
Impairment	-	3,382294	4,540931	4,071482	0,688296	1,723659	1,060334	1,413779	3,749415	4,627103	5,730694	7,218049	8,360708	9,375752	9,814244	10,74745	11,29462	10,73665
Adjusted EBIT -1	-	3,3	20,2	33	40,2	46,9	32,2	44,9	30,9	40,1	51,4	75,8	113,6	116,8	181,5	215,6	257,4	337,3
Adjusted EBIT margin	-	0,20%	0,80%	1,30%	1,50%	1,70%	1,40%	1,5%	0,9%	1,0%	1,1%	1,3%	1,7%	1,5%	2,2%	2,4%	2,8%	3,5%

6. CAPEX

CAPEX	2009	2010	2011	2012	2013	2014	3Q 2015	2015*	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
BY SEGMENT (EURm)																		
Iberia	1	132,22	120,2	133,3	187,4	200,5	153,4	195,0	197,1	173,8	150,6	123,8	126,6	127,2	129,8	132,4	135,0	137,7
Emerging markets	1	82,54545	90,8	106,2	127,5	144,4	107,6	107,6	150,9	173,5	200,5	238,6	286,3	330,9	301,8	335,0	354,0	276,2
France	1	126,2727	138,9	92,2	49,9	4,5	0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
TOTAL	1	214,7655	211	239,5	314,9	344,9	261	302,6	347,9	347,3	351,1	362,4	413,0	458,2	431,6	467,4	489,1	413,9

CAPEX (% Sales)	2009	2010	2011	2012	2013	2014	3Q 2015	2015*	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
BY SEGMENT (EURm)																		
Iberia	0,00%	2,68%	2,43%	2,60%	3,55%	3,84%	3,59%	3,59%	3,50%	3,00%	2,50%	2,00%	2,00%	2%	2%	2%	2%	2%
Emerging markets	0,00%	3,87%	3,67%	4,33%	4,79%	5,18%	4,54%	4,54%	5,00%	5,00%	5,00%	5,00%	5,00%	5%	4%	4%	4%	3%
France	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
TOTAL	0,00%	100,00%	6,10%	6,94%	8,34%	9,02%	8,13%	3,58%	3,82%	3,54%	3,25%	3,04%	3,19%	3,29%	2,90%	3,02%	3,07%	2,51%

7. Taxes

INCOME STATEMENT (EURm)	31st December* 2015	31st December 2016	31st December 2017	31st December 2018	31st December 2019	31st December 2020	31st December 2021	31st December 2022	31st December 2023	31st December 2024	31st December 2025
Income Tax	124,16 €	122,88 €	135,89 €	152,50 €	177,10 €	205,70 €	205,96 €	243,51 €	267,39 €	295,77 €	339,13 €
Income Tax Iberia	108,96 €	112,42 €	122,31 €	135,09 €	151,45 €	167,26 €	166,43 €	182,07 €	194,42 €	208,65 €	224,97 €
Income Tax Emergents	15,19 €	10,45 €	13,58 €	17,41 €	25,65 €	38,44 €	39,53 €	61,44 €	72,97 €	87,12 €	114,16 €

8. Depreciations, Amortizations and Impairments

Depreciation, Amortization and Impairments											
Iberia	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Amortisation and depreciation	125,71 €	122,46 €	115,88 €	107,61 €	93,63 €	92,42 €	108,13 €	126,59 €	127,39 €	129,21 €	160,63 €
Impairment	5,03 €	4,90 €	4,64 €	4,30 €	3,75 €	3,70 €	3,60 €	4,22 €	4,25 €	4,31 €	5,35 €
Emergents	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Amortisation and depreciation	69,37 €	93,74 €	115,68 €	143,27 €	180,45 €	209,02 €	281,27 €	294,43 €	322,42 €	338,84 €	322,10 €
Impairment	2,77 €	3,75 €	4,63 €	5,73 €	7,22 €	8,36 €	9,38 €	9,81 €	10,75 €	11,29 €	10,74 €

9. Forecasted Cash-Flow Statements for DIA

Iberia	0	1	2	3	4	5
(EURm)	2015*	2016	2017	2018	2019	2020
EBIT Iberia	358,25 €	385,05 €	412,42 €	448,37 €	484,57 €	505,28 €
Income Tax Iberia	108,96 €	112,42 €	122,31 €	135,09 €	151,45 €	167,26 €
Amortisation and depreciation	125,71 €	122,46 €	115,88 €	107,61 €	93,63 €	92,42 €
Impairment	5,03 €	4,90 €	4,64 €	4,30 €	3,75 €	3,70 €
CAPEX	194,98 €	197,08 €	173,79 €	150,61 €	123,82 €	126,61 €
WC Variation	- 88,41 €	- 21,75 €	- 17,81 €	- 25,49 €	43,61 €	- 13,95 €
Free Cash Flow to the Firm	96,63 €	181,15 €	219,03 €	249,09 €	350,28 €	293,57 €

Emergents	0	1	2	3	4	5	6	7	8	9	10
(EURm)	2015*	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
EBIT Emergents	44,89 €	30,89 €	40,11 €	51,45 €	75,77 €	113,56 €	116,81 €	181,54 €	215,60 €	257,41 €	337,30 €
Income Tax Emergents	15,19 €	10,45 €	13,58 €	17,41 €	25,65 €	38,44 €	39,53 €	61,44 €	72,97 €	87,12 €	114,16 €
Amortisation and depreciation	69,37 €	93,74 €	115,68 €	143,27 €	180,45 €	209,02 €	281,27 €	294,43 €	322,42 €	338,84 €	322,10 €
Impairment	1,06 €	2,77 €	3,75 €	4,63 €	5,73 €	7,22 €	8,36 €	9,38 €	9,81 €	10,75 €	11,29 €
CAPEX	107,60 €	150,85 €	173,48 €	200,52 €	238,62 €	286,35 €	330,94 €	301,82 €	335,02 €	354,04 €	276,15 €
WC Variation	- 49,51 €	- 49,78 €	- 59,50 €	- 83,82 €	- 47,72 €	- 89,19 €	- 17,21 €	- 74,70 €	- 42,81 €	- 31,86 €	- 33,14 €
Free Cash Flow to the Firm	42,04 €	15,87 €	31,99 €	65,22 €	45,41 €	94,20 €	53,17 €	196,78 €	182,65 €	197,69 €	313,52 €

10. Discounted Cash-Flow Valuation

DCF Valuation (EURm)	0	1	2	3	4	5	6	7	8	9	10
	2015*	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
Present Value Iberia	96,63 €	166,32 €	184,64 €	192,78 €	248,91 €						
Terminal Value Iberia						2.419,38 €					
Present Value Emergents	42,04 €	14,09 €	25,18 €	45,57 €	28,15 €	51,81 €	25,95 €	85,22 €	70,19 €	67,41 €	
Terminal Value Emergents											886,52 €
Final Valuation	4.650,80 €										
Net Debt	1.139,50 €										
Equity Valuation	3.511,30 €										
Price per Share	5,43 €										

Adjusted Present Value

Cash-Flows	0	1	2	3	4	5	6	7	8	9	10
(EURm)	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
EBIT	390,45 €	429,95 €	443,31 €	488,49 €	536,01 €	581,05 €	612,51 €	608,89 €	685,26 €	730,14 €	752,45 €
Income Tax	124,16 €	122,88 €	135,89 €	152,50 €	177,10 €	205,70 €	205,96 €	243,51 €	267,39 €	295,77 €	339,13 €
Amortisation and depreciation	195,08 €	216,20 €	231,56 €	250,88 €	274,09 €	301,43 €	389,40 €	421,02 €	449,81 €	468,05 €	482,73 €
Impairment	7,80 €	8,65 €	9,26 €	10,04 €	10,96 €	12,06 €	12,98 €	14,03 €	14,99 €	15,60 €	16,09 €
CAPEX	302,58 €	347,93 €	347,26 €	351,14 €	362,44 €	412,96 €	458,17 €	431,59 €	467,38 €	489,06 €	413,87 €
WC Variation	-34,12 €	-71,54 €	-77,31 €	-109,31 €	-4,12 €	-103,14 €	43,32 €	-86,15 €	-54,49 €	-43,78 €	-45,29 €
Free Cash Flow to the Firm	200,71 €	255,52 €	278,29 €	355,06 €	285,64 €	379,02 €	307,45 €	455,00 €	469,77 €	472,75 €	543,56 €
Present Value (Re discounted)	200,71 €	231,22 €	227,89 €	263,11 €	191,55 €	230,00 €	168,83 €	226,10 €	211,25 €	192,37 €	
Terminal value											2.222,46 €
Unlevered Value	4.365,50 €										
Total Debt	1.253,87 €	1.375,60 €	1.288,20 €	962,57 €	985,06 €	1.027,92 €	1.106,71 €	1.139,28 €	1.162,96 €	1.215,34 €	1.205,16 €
Interest Expenses	59,54 €	53,34 €	57,43 €	59,12 €	60,35 €	63,07 €	62,54 €	62,47 €	37,17 €	34,37 €	28,49 €
Tax shield	18,64 €	16,70 €	17,98 €	18,51 €	18,89 €	19,75 €	19,58 €	19,56 €	11,64 €	10,76 €	8,92 €
Present Value of Tax Shields	18,64 €	15,88 €	16,25 €	15,90 €	15,43 €	15,33 €	14,45 €	13,73 €	7,76 €	6,82 €	5,38 €
Terminal Value of Tax Shields											51,19 €
Enterprise Value	4.556,89 €										
Default Probability (BBB-)	2,30%										
Bankruptcy Cost (%EV)	25%										
Bankruptcy Cost	26,20 €										
Adjusted Present Value	4.530,69 €										
Net Debt	1.139,50 €										
Equity Valuation	3.417,39 €										
Price per Share	5,28 €										

APV = Unlevered Value + PVTS - Bankruptcy Costs

11. Discounted Cash-Flow Valuation (Combined Segments)

Combined DCF	0	1	2	3	4	5	6	7	8	9	10
(EURm)	2015*	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
EBIT	390,45 €	429,95 €	443,31 €	488,49 €	536,01 €	581,05 €	612,51 €	608,89 €	685,26 €	730,14 €	752,45 €
Income Tax	124,16 €	122,88 €	135,89 €	152,50 €	177,10 €	205,70 €	205,96 €	243,51 €	267,39 €	295,77 €	339,13 €
Amortisation and depreciation	195,08 €	216,20 €	231,56 €	250,88 €	274,09 €	301,43 €	389,40 €	421,02 €	449,81 €	468,05 €	482,73 €
Impairment	7,80 €	8,65 €	9,26 €	10,04 €	10,96 €	12,06 €	12,98 €	14,03 €	14,99 €	15,60 €	16,09 €
CAPEX	302,58 €	347,93 €	347,26 €	351,14 €	362,44 €	412,96 €	458,17 €	431,59 €	467,38 €	489,06 €	413,87 €
WC Variation	-34,12 €	-71,54 €	-77,31 €	-109,31 €	-4,12 €	-103,14 €	43,32 €	-86,15 €	-54,49 €	-43,78 €	-45,29 €
Free Cash Flow to the Firm	200,71 €	255,52 €	278,29 €	355,06 €	285,64 €	379,02 €	307,45 €	455,00 €	469,77 €	472,75 €	543,56 €
Present Value (WACC discounted)	200,71 €	231,40 €	228,23 €	263,70 €	192,12 €	230,86 €	169,59 €	227,28 €	212,51 €	193,67 €	
Terminal value											2.259,75 €
Enterprise Value	4.409,83 €										
Net Debt	1.139,50 €										
Equity Valuation	3.270,33 €										
Price per Share	5,05 €										

To complement the DCF analysis done so far, it was conducted an alternative DCF trial where there were no segmentation of the cash-flow between areas. A 10-year explicit period was chosen and the cash-flows of the two areas were summed in order to obtain a consolidated outcome. Also, a new WACC was computed in a more general way, by weighting average by sales the tax level and the expected risk premium and using again 10-year German Bunds. Here, the assumption of changing the capital structure, in 2019, after the maturity of the bond was maintained. There would be only one Terminal Value computed in 2025 and the estimate for the long-term growth would be again a weighted average between the two previous segments, but now by the level of sales of 2025 (around 2%).

The result of the valuation would state that the Enterprise Value is around 4,4 billion euros and the Equity around 3,3 billion euros (5,05 euros per share), which in some way confirms the projection made so far. Still, it is possible to use the argument that the “whole is not equal to the

some of the parts” as by combining and compiling the cash-flows from each segment it is not possible to capture the specifications of each market. For instance, this model does not capture the assumption of Iberian stabilization in 2020 or that only the Emergent’s zone is under a fast growth and this may contribute for the difference.

12.Final Table

DIA's Valuation	Enterprise Value (EURm)	Equity Value (EURm)	Price per Share
Discounted Cash-Flows	4.650,80 €	3.511,30 €	5,43 €
Adjusted Present Value	4.530,69 €	3.417,39 €	5,28 €
Combined Cash-Flows	4.409,83 €	3.270,33 €	5,05 €
Enterprise Value Multiples	4.860,56 €	3.721,06 €	5,75 €
Equity Multiples	-	3.596,04 €	5,56 €
Final Valuation	4.612,97 €	3.503,22 €	5,41 €

13. Company Peer Group description (Bloomberg)

The next paragraphs include BLOOMBERG's company's descriptions for the Peer Group.

Europe

“Casino Guichard-Perrachon SA operates a wide range of hypermarkets, supermarkets, and convenience stores. The Company operates in Asia and Europe.”

“Tesco plc is a food retailer. The Group operates stores in the United Kingdom, Republic of Ireland, Czech Republic, Hungary, Poland, Slovakia, Turkey, Japan, Malaysia, South Korea, China, Thailand, and the United States.”

“Koninklijke Ahold N.V., through its subsidiaries, operates retail stores that offer food and non-food products in the United States and Europe. The Company operates supermarkets, convenience stores, compact hypers, pick-up points, and gasoline stations, as well as specialty stores, which provide health and beauty care products, and wine and liquor.”

“J Sainsbury plc retails food. The Company operates Sainsbury supermarkets in the United Kingdom, convenience stores, an Internet-based home delivery service, and Sainsbury Bank. The Bank offers saving accounts, credit cards, mortgages, insurance products, and consumer loans.”

“Jeronimo Martins, SGPS, S.A. is a holding company. The Company, through subsidiaries, distributes food in Portugal, Poland and Colombia. The Company operates supermarkets and cash and carry stores in Portugal as well as retail stores in Poland and Colombia. Jeronimo Martins also manufactures various food products as well as provides services to the restaurant industry.”

“Wm Morrison Supermarkets PLC retails groceries through a chain of supermarkets and an online home delivery service in England. The Company offers food and groceries, much of which it sources and processes through fully own manufacturing facilities.”

“Carrefour SA operates chains of supermarkets, hypermarkets, discount, cash and carry, and frozen food stores in Europe, the Americas, and Asia.”

“Metro AG operates retail stores and markets products over the Internet. The Company operates cash and carry stores, supermarkets and hypermarkets, consumer electronics stores, department stores, theme stores, and online sales services.”

“Ebro Foods SA is a multinational food group operating in the rice, pasta and sauces sectors.”

South America

“Companhia Brasileira de Distribuição operates in the food and non-food retail businesses. The Group's structure comprises of supermarkets, hypermarkets, electronics/household appliance stores, convenience stores, cash & carry (wholesale/retail), e-commerce operations and a wide distribution network.”

“Cencosud SA is a multi-brand retailer in South America. The Company operates through a number of formats, including supermarkets, home improvement stores, shopping centers and department stores. Cencosud is headquartered in Chile and has operations in Chile, Argentina, Brazil, Colombia and Peru.”

“Wal-Mart de Mexico SAB de CV retails food, clothing, and other merchandise under a variety of store formats. The Company operates Wal-Mart Supercenters, Sam's Club wholesale outlets, Bodega discount stores, Superama supermarkets, and Suburbia apparel stores.”

“Lojas Americanas S.A. operates a chain of retail stores in cities throughout Brazil. The Company sells consumer goods and semi-durable goods through its Lojas Americanas retail outlets. The stores sell both food and non-food merchandise.”

“S.A.C.I. Falabella owns and operates department stores, home improvement stores, hypermarkets and Shopping centers. The company has operations in Chile, Peru, Argentina, Colombia, Uruguay and Brazil through its subsidiaries. The company also has a financial branch that includes banks and credit card operations.”

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