

# VALUATION OF DIA AND FOOD RETAIL INDUSTRY OVERVIEW

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DIA's Valuation

**ABSTRACT** 

The present report has two main goals, the first one is to analyze the food retail sector and the

second one is evaluating Distribuidora Internacional de Alimentación Group, in order to make

an investment recommendation.

The company is a Spanish organization with presence in five countries in three different

continents. DIA operates in the food retail sector and has seven different banners. In recent

years, the company opened new stores through franchising business model and acquired some

competitor companies.

Company shares quote on Madrid Stock Exchange and integrate the IBEX 35 index, as well as

the European index Stoxx 600.

With the purpose of understanding if the company is being over or underpriced by the market,

we make a company analysis and estimate the key variables, in order to perform an evaluation

using the Discounted Cash Flow (DCF) and Market Multiples Methods. The final goal is to

achieve a price target and make an investment recommendation on DIA's shares.

All these analyses are made with data available from 2011 until 2016. The projections are for

the next three years -2017, 2018 and 2019.

Our price target is €5.98 which compares to the market value of € 4.67, as of 30<sup>th</sup> December

2016. So, according to this analysis the investment recommendation is BUY DIA's shares.

Keywords: DIA, Food retail sector, Discounted Cash Flow, Multiples

JEL Classification System: G30, G32

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DIA's Valuation

**RESUMO** 

O presente projeto tem dois principais objetivos, o primeiro é uma análise ao sector do retalho

alimentar e o segundo objetivo é a avaliação da Distribuidora Internacional de Alimentación,

de modo a fazer uma recomendação de investimento.

DIA é uma empresa espanhola com presença em cinco países em três continentes diferentes. O

DIA opera no setor do retalho alimentar e apresenta um portfolio com sete marcas próprias.

Nos últimos anos, a empresa tem aberto novas lojas através do modelo de negócios franchising

e também através de aquisição de concorrentes.

A empresa cota na bolsa de Madrid, integra o índice IBEX 35, assim como o índice europeu

Stoxx 600.

No sentido de perceber se a empresa está a ser subvalorizada ou sobrevalorizada pelo mercado,

é feita uma análise da empresa e estima-se as variáveis principais de forma a utilizar o método

de avaliação Método de Fluxo de Caixa Descontado e o Método dos Múltiplos de Mercado. O

objetivo final é calcular o preço-alvo e fazer uma recomendação de investimento nas ações do

DIA.

Todas estas análises incluem dados de 2011 até 2016. A projeção de resultados é elaborada por

um período de três anos – 2017, 2018 e 2019.

O nosso preço-alvo é de €5.98 que compara com o preço de mercado de €4.67, a 30 de

Dezembro de 2016. Deste modo, de acordo com a análise de investimento a recomendação é

COMPRAR ações do DIA.

Palavras-chave: DIA, Retalho Alimentar, Método de Fluxo de Caixa Descontado, Múltiplos

JEL Classification System: G30, G32

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#### **GLOSSARY**

APV – Adjusted Present Value

CARG - Compound Annual Growth Rate

CAPM – Capital Asset Price Model

CFROI – Cash Flow Return on Investment

COGS - Cost of Goods Sold

D&A – Depreciation and Amortization

DCF - Discounted Cash Flow

DDM – Dividend Discount Model

DIA – Distribuidora Internacional de Alimentación

EBIT – Earnings Before Interest and Tax

EBITDA – Earnings before Interest, Taxes, Depreciation and Amortization

ECB – European Central Bank

EM – Emerging Markets

EU - European Union

E/V – Enterprise Value

EVA – Economic Value Added

FCFE – Free Cash Flow to Equity

FCFF – Free Cash Flow to Firm

GDP – Gross Domestic Product

HPC – Household and Personal Care

Lfl sales – like-for-like sales

P/B – Price Book Value

P/E – Price Earnings

P/S – Price to Sales

ROA – Return on Assets

ROE – Return on Equity

ROIC - Return on Invested Capital

ROS – Return on Sales

TV – Terminal Value

YoY - Year on Year

WACC - Weighted Average Cost of Capital

#### 1. INTRODUCTION

The project that I am proposing to do is part of the Master in Management and is an equity research about a European food retail company.

The company that I chose is Distribuidora Internacional de Alimentación, commonly known as DIA. I selected this company because of my strong interest about this sector. Also, it is one of the biggest Spanish food retail companies and has some features that set the company apart from its competitors.

DIA is a Spanish company that operates in food retail industry and it is present in 5 countries: Spain, Portugal, China, Brazil and Argentina. Spain is the country with the main contribution for DIA's revenues, in 2016 was 57%; followed by Brazil (18% of total sales) and Argentina (15% of total sales). The Group had total revenues of €8.8 million in 2016.

Its shares trade on Madrid stock exchange and take part in the Spanish index IBEX 35. Additionally, DIA shares are one of the constituents of the Stoxx 600, the European benchmark.

DIA has a portfolio with ten different store brands and six own label products. Every store brand as different features and targets a specific type of consumer or consumer need. Proximity, price and the franchise are the three factors that, combined, comprise the DIA Group's business model.

This report starts with a theoretical framework about different valuation methods, mainly about Discounted Cash Flow and Multiples method. The project is performed as a top-down analysis; it starts with the analysis of the macroeconomic environment on the five countries where DIA is present and then, a description of the main features and trends of European food retail industry. After that, we make a company overview, which includes an analysis to its worldwide presence, a description of its store brands and own labels and the main events that happened recently with DIA. In addition, we present DIA European competitors. To perform a comprehensive analysis of the company, we make a financial statement analysis.

Concerning to DIA valuation, it is based on two methods: Discounted Cash Flow and Multiples methods. The first method is used to calculate the value of the company and the Multiples method serve to verify the DCF results. We use these methods to reach a recommendation of BUY, HOLD or SELL and to calculate a price target for DIA shares as of 30/12/2016.

For a complete valuation, we perform a sensitivity analysis considering a zero sales growth case, in which we assume no sales growth; a bull case, that assumes a higher level of sales compared with the base case; and a bear case, which is our worst case scenario in terms of sales performance.

To conclude, the recommendation is BUY with a price target of €5.98, representing an upside potential of 28.17% comparing with the closing price as of 30/12/2016.

#### 2. REVIEW OF LITERATURE

According to Damodaran (2012: 1), "Every asset, financial as well as real, has a value." Valuation is defined as the assessment of the current value of an asset or company. The success of evaluating a company or an asset is dependent on the accuracy of data inputs, very often based on the views and beliefs of the analysts. Any asset can be valued but the choice of a valuation method differs according to the type of asset that we are analyzing and depending on some characteristics of the asset and the information available.

The valuation models, according to Frykman and Tolleryd (2003), can be separated in: valuation models based on cash flows, that contain the dividend discount model (DDM), the discounted cash flow model and the cash flow return on investment (CFROI); valuation models based on returns, including the economic value added model (EVA); and valuations based on assets, composed by the net asset valuation approach; valuation based on multiples and options.

There are several approaches to assess the value of companies. According to Fernández (2007) there are six groups of models for valuing companies which are: balance sheet based methods (book value, adjusted book value, liquidation value and substantial value), income statement based methods (multiples analysis), mixed methods, cash flow discounting methods (DCF, Adjusted Present Value (APV), equity cash flow and capital cash flow), value creation (EVA, economic profit, cash value added and CFROI) and options methods. The author also refers, that the methods that have more importance "... (and are conceptually 'correct') are those based on cash flow discounting." (Fernández, 2007: 1).

On other hand, Damodaran (2012) merely regards three approaches of valuation, which are: discounted cash flow, where he considers Free Cash Flow to Firm (FCFE), Free Cash Flow to

Equity (FCFE), APV, DDM and EVA; relative valuation and the last one is contingent claim, where option pricing models are used.

No doubt that all authors use the same methods of valuation but they separated them in dissimilar ways.

#### 2.1. Discounted Cash flow Valuation

According to Damodaran, (2012: 12) "(...) we will argue that it is the foundation on which all other valuation approaches are built." Discounted cash flow is the most used valuation method in the real world.

DCF is one way of approaching valuation that has its foundation in the present value rule. The value of an asset is the present value of expected future cash flow on it.

$$Value = \sum_{t=1}^{t=n} \frac{CF_t}{(1+r)^t}$$
 (1)

Where:

n – Life of the asset

 $CF_t$  – Cash flow in period t

r – Discount rate reflecting the riskiness of the estimated cash flows

This method is the easiest to use for firms and other assets, which cash flows are currently positive and can be estimated with some reliability for coming periods.

There are several DCF approaches, nevertheless the most used is the model based on cash flows, FCFF and FCFE.

The Free Cash Flow to Firm is the cash flow that is available to debt and equity holders, after the company investments in fixed assets and working capital. The Free Cash Flow to Equity only regards the cash flow that is available to the company's equity holders after costs related with borrowed funds, investments in fixed assets and working capital have been made.

We do a deeper analysis of FCFF, because this method is used to perform DIA's valuation.

#### 2.1.1. Free Cash Flow to the Firm

This valuation method has four main inputs: the Weighted Average Cost of Capital (WACC), Free Cash Flow, the Terminal Value and the company value.

# The Weighted average Cost of Capital

The WACC is the rate used to discount the cash flows available to the firm. According to Steiger (2008), the WACC is obtained by weighting the sources of capital according to the company's financial structure and then multiplied by their costs:

$$WACC = \frac{E}{D+E} \times r_e + \frac{D}{D+E} \times r_d$$
 (2)

Where:

D – market value of debt

E – market value of equity

rd - cost of debt

re - cost of equity

# 2.1.2. Cost of Equity

The cost of equity is calculated by the Capital Asset Pricing Model (CAPM). The CAPM represents the return that investors require for the risk they take by holding a company's share, thus is equal to the cost of equity of the company.

$$r_e = r_f + (r_m - r_f) \times \beta_e \tag{3}$$

Where:

 $r_e$  – cost of equity

 $r_f$  risk free rate

 $r_m$  – expected market return

 $r_m - r_f$  – market risk premium

βe – company levered beta

In finance, most risk and return models begin by identifying an asset that is described as risk free and the expected return on that asset as the risk free rate. The risk free rate is the theoretical rate of return of an investment with zero risk and it represents the interest an investor would expect from an absolutely risk free investment over a specified period of time. The risk free

interest rate is the yield on Treasury bills or Treasury bond as estimation for the short-term risk-free interest rate. For an asset to be considered risk free, it has to be free of default and reinvestment risk.

The expected return on an investment can be described as the sum of the risk free rate and an extra return to reward for the risk.

Market risk premium is the additional interest rate that investors demand for investing in a market portfolio, considering the risk free interest rate.

Beta is a measure of fundamental risk associated with an investment in the market portfolio, through the CAPM, the return required for a given level of risk.

When calculating a company's WACC it is crucial to understand the risk features that have been considered in defining the risk-free rate, the risk premium and beta to guarantee a consistent calculation of WACC.

#### 2.1.3. Cost of Debt

The cost of debt relates to the effective rate that a company pays on its current debt. It is the cost of debt financing to a company at the time that it issues a bond or takes out a bank loan.

# **Calculating Free Cash Flow**

The FCFF is obtained by:

 $FCFF = Net\ Income + Interest\ Expense\ \times\ 1 - t + D\&A - \Delta NWCN - Capex$  (4)

Where:

t - tax rate

D&A – depreciations and amortizations

NWCN – net working capital needs

Capex – capital expenditures (net of divestures)

To calculate the FCFF there are main variables that need to be estimated such as interest expense, capex, depreciation and working capital.

It is important to differentiate explicit forecast period and terminal value period in order to calculate free cash flows. In the explicit forecast period the free cash flows are predicted for

each year and in the terminal value is considered a constant growth.

The formula of free cash flow of explicit forecast period is:

$$FCF from the explicit period = \frac{FCF_1}{(1+r_{WACC})^1} + \frac{FCF_2}{(1+r_{WACC})^2} + \dots + \frac{FCF_n}{(1+r_{WACC})^t}$$
 (5)

Where:

FCF - free cash flow

t – number of years in the explicit period

#### **Calculation of the Terminal Value**

According to Steiger (2008: 10), terminal value "is the NPV of all future cash flows that accrue after the time period that is covered by the scenario analysis". The terminal value is found on average growth expectations.

$$V_0 = \frac{\frac{FCF_{t+1}}{r_{WACC} - g}}{(1 + r_{WACC})^t} \tag{6}$$

Where:

TV – terminal value

 $FCF_{t+1}$  level of free cash flow in the first year after the explicit forecast period

 $r_{WACC}$  weighted average cost of capital

g – expected growth rate in free cash flow in perpetuity

# **Determination of Company Value**

To measure the company's total value we use the Enterprise Value (EV). After determined the FCFF, the TV and the WACC we can calculate the EV.

Enterprise Value = 
$$\sum_{t=1}^{t=\infty} \frac{FCFF_t}{(1+r_{WACC})^t}$$
 (7)

# 2.1.4. Equity Value

To calculate the final value of the company it is necessary to estimate the equity value, which the formula is the following:

Equity value =  $Firm\ Value - Market\ value\ of\ debt + Non - operating\ assets$  (8)

# 2.1.5. Price Target

The price target represents the final result of an equity research. It translates the analysis made, considering all the assumptions, upsides and challenges of the company, in a price per share. Considering this final result, the analyst compares it with the current market share price and concludes if the company is overvalued, undervalued or correctly value by the market.

This is the final value of the company, so it is compared with the market value and it is possible to understand if the company is over or undervalued.

$$Price\ Target = \frac{Equity\ Value}{Number\ of\ shares\ outstanding} \tag{9}$$

# 2.2. Multiples Valuation

According to Fernandez (2013a: 2) "However, multiples are useful in a second stage of the valuation: after performing the valuation using another method, a comparison with multiples of comparable firms enables us to gauge the valuation performed and identify differences between the firm valued and the firms it is compared with."

In accordance with Damodaran, there are two components of relative valuation or multiples valuation: first, to value assets on a relative basis, prices have to be standardized, typically by converting prices into multiples of earnings, book values or sales. The second component is to discover comparable companies, in terms of industry and historical data. Cross-sectional analysis is the most used approach.

Mota and Custódio (2012) recommend the use of a set of companies instead only one, in order to have a range of results to compare with the company under valuation.

There are two kinds of multiples: the Equity Multiples and the Enterprise Multiples.

# 2.2.1 Equity Multiples

These multiples use the equity market price of a company and its fundamentals, therefore are based on the company's market capitalization.

Damodaran (1994) indicates that the price to earnings ratio (P/E), the price to book value (P/BV) and the price to sales ratio (P/S) are the most common multiples used in performing this kind of valuation.

# 1. Price to Earnings Ratio

P/E ratio compares the share price of a company with its earnings. According to Damodaran (1994), this approach should be used because of its simplicity, quickly available data, it states the price paid for a company share of stock with its current earnings and it can be used to analyze a company risk and expected growth.

$$P/E = \frac{Market\ price\ per\ share}{Earnings\ per\ share} \tag{10}$$

When the ratio is high compared with peers, it means that investors expect an earnings increase in the future.

Besides that, Damodaran (1994) highlights that this ratio is not meaningful when the earnings per share is negative, as well as the volatility of earnings and market prices can cause the P/E ratio to change dramatically from period to period. Also, we should assess the capital structure of the companies under comparison because dissimilar structures will affect the ratio.

#### 2. Price to Book Value Ratio

The price to book ratio compares the current market price with the company's book value of equity.

$$P/BV = \frac{Company\ market\ price\ per\ share}{Book\ value\ of\ Equity\ per\ share} \tag{11}$$

It is used to find undervalued companies. A low ratio means that the market is undervaluing the company or that its assets are overstated. On one hand, the ratio is simple and makes it easy to find undervalued companies. On the other hand, book value is affected by depreciations, by accounting standards and companies with few fixed assets miss its meaning.

### 3. Price to Sales Ratio

The price to sales ratio compares the company's stock price with its sales per share.

$$P/S = \frac{Company\ market\ share\ per\ share}{Company\ revenues\ per\ share} \tag{12}$$

This ratio can be applied in every company even for the most troubled firms and the revenue is relatively difficult to manipulate so it is not easily influenced. Another advantage is that on P/S

ratio it is used the revenue that is more stable than earnings and book value but also this stability can be a drawback when the company's problems lie in cost control.

A low P/S ratio could mean the stock is undervalued, compared with peers.

# 2.2.2. Enterprise Multiples

These multiples use the enterprise value as an alternative to the company's market capitalization, often considered a better metric because it takes into account the debt of the company when assessing its value. The enterprise value includes the market capitalization, plus financial debt and extracts cash and equivalents. Fernandez (2013a) chooses the Enterprise Value to EBITDA and Enterprise Value to Sales as the most important multiples.

# 1. Enterprise Value to EBITDA Ratio (EV/EBITDA)

This ratio calculates the value of a company, as it was a target for acquisition by considering not only the value of its equity but also the value of its debt. Like the P/E ratio, the result can be understood as how much the investor is paying for the company cash flows. By using the EBITDA of the company it does not consider the effect of taxes, which is useful for comparing companies in different taxation jurisdictions. A low value compared with peers means that the company is undervalued and a high value means the company is overvalued.

$$EV/EBITDA = \frac{Market \, Value \, of \, Equity + Market \, Value \, of \, Debt-Cash}{EBITDA}$$
 (13)

This multiple is better than P/E ratio because it is not influenced by capital structure so it is good to measure companies with different capital structures. The problem of this ratio is that it cannot be used when the company has negative cash flows.

# 2. Enterprise Value to Sales (EV/Sales)

EV/Sales ratio compares the enterprise value with company's sales.

$$EV/Sales = \frac{Enterprise \, Value}{Sales} \tag{14}$$

A lower outcome signifies that the company can be undervalued. Although, it can also represent that the future sales prospects are weak. But is it a helpful measure when the company records negative cash flows.

According to Steiger (2008: 2) "The goal of company valuation is to give owners, potential buyers and other interested stakeholders an approximate value of what a company is worth."

#### 3. MACROECONOMIC OUTLOOK

#### 3.1. Iberia

Iberia is the European region that most suffered from the economic downturn caused by the financial and sovereign debt crisis. In Spain, the banking sector was hit by a real estate booble that triggered a public intervention in several banks. In Portugal, the sovereign debt yields hit unsustainable levels which percipitated an intervention by the Internacional Monetary Fund. Both countries engaged in several austerity measures and strutural reforms to recover from the economic turmoil. In the recent years both countries started to recover from the most recent recession, returning to growth.

Spain returned to Gross Domestic Product growth in 2014 and managed to be one of the European countries with the fastest GDP growth in the last couple of years, by growing 3.21% in 2015 and 3.06% in 2016, according to IMF. In 2016, the improvement in the Spanish economy was mainly due to a recovery in consumer spending, has ilustrated on figure 1 which compares GDP growth with the evolution on food retail sales in Spain.

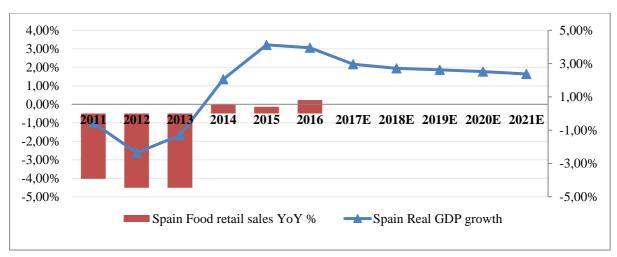


Figure 1: Spain Real GDP growth versus Spain food retail sales 2011 - 2021E

Source: International Monetary Fund, World Economic Outlook Database, October 2016 and Bloomberg

The improvement in consumer spending was due to the low levels of inflation, that was -0.32% in 2016, and the decrease in the levels of unemployment, that reached the lowest level of the

last 6 years, 19.40%. This improvement in consumer spending positively affected the level of food retail sales, that advanced an average of 0.81% during 2016.

In the October 2016 global economic outlook, the IMF expects the Spanish economy to grow 2.17% in 2017 and maintain its levels of expansion in a rate of around 2% a year until 2021. Considering inflation, the International Monetary Fund estimates that it should increase during 2017 to 1.02% and continue to adjust to the 2% European Central Bank target until 2021, reaching 1.56% by 2021.

In Portugal, the economic recovery started in 2014 and GDP reached 1% growth rate in 2016. Growth in exports and consumer spending led this expansion. Considering exports, Portugal posted a 4.4% growth comparing with 2015. Consumer spending advanced 2.3% reaching pre financial crisis levels.

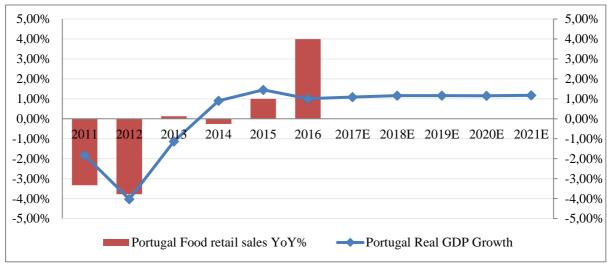


Figure 2: Portugal real GDP growth versus Food retail sales 2011 – 2021E

Source: International Monetary Fund, World Economic Outlook Database, October 2016 and Bloomberg

Although positive, inflation remained weak in 2016 reaching 0.73% and the unemployment rate decreased from 12.44% in 2015 to 11.16% in 2016, the lowest rate since 2010. Both factors contributed to improve the levels of consumer spending. In fact, as seen in figure 2 above, 2016 food reatil sales jumped 4%, which proves the increase in consumer spending.

IMF estimates point that the Portuguese economy will maintain its growth path by advancing around 1% until 2021. After the fears of deflation, the consumer price index in Portugal, like the Spanish case, is going to accelerate to European Central bank (ECB) target of 2%. The IMF

predicts 1.13% inflation rate in 2017 and 1.81% by 2021. The unemployment rate will decrease every year and is expected to be below 9% by 2021.

### 3.2. Emerging Markets

Argentinian GDP growth has been very unstable in recent years. After growing by 2.50% in 2015, GDP decreased 1.76% in 2016. Last year's decline was due to the attempt, by the Argentina President, to develop reforms in order to liberalize the economy and boost the levels of investment in the country. These reforms introduce changes in central bank enhancing its credibility and allowing inflation targeting. The central bank increased interest rates in 2016, which made inflation levels rise to 40%.

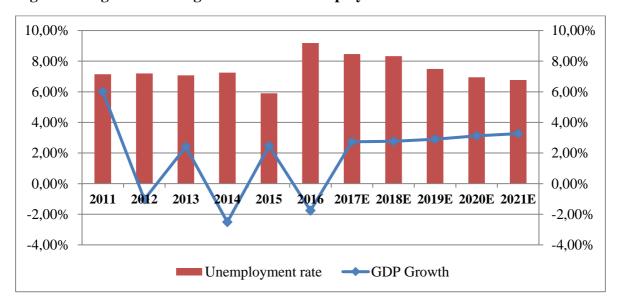


Figure 3: Argentina GDP growth versus Unemployment rate 2011 – 2021E

Source: International Monetary Fund, World Economic Outlook Database, October 2016

The IMF estimates that GDP growth will start to pick up in 2017, by increasing 2.73%, driven by investment, and continue this positive trend until 2021, year in which it is expected to grow 3.27%. Hyperinflation levels should disappear slowly during the next 5 years. The IMF expects inflation to decrease to 23% in 2017 and achieve 9.70% by 2021.

The Brazilian economy is facing a severe recession, the worst it ever experienced. In 2015, GDP decreased by 3.85% and in 2016 GDP continued to decrease, this time by 3.27%. Investment dropped 10% in 2016, and many economists blame the central bank of keeping interest rates too high. Also, inflation rate continued to be at 9% levels and is pushing the central

bank to easy its monetary policy. The unemployment rate escalated to 11.28% last year, worsening the 8.53% registered in 2015 and being the highest rate in the last 6 years.

Nevertheless, food retail sales showed an improvement by growing 9.74%, which represents an increase of 3% comparing with 2015.

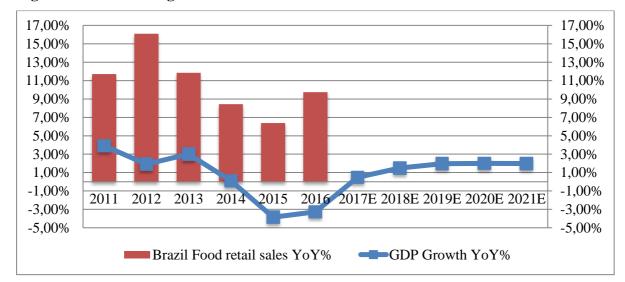


Figure 4: Brazil GDP growth versus Brazil food retail sales 2011 – 2021E

Source: International Monetary Fund, World Economic Outlook Database, October 2016 and Bloomberg

The economic downturn was aggravated by political instability that led to the impeachment of Brazil's President Dilma Rousseff, after claims of involvement in Petrobras corruption scandal and also of transferring funds between government budgets.

According to IMF estimates, a recovery in the Brazilian economy will only start to pick up in 2018, when it is expected to grow 1.49%. In 2017, the IMF expects the Brazilian economy to grow 0.49%. By 2021, Brazil should grow at a pace of 2%. Considering inflation, the IMF estimates a reduction to 5.39% has the Brazilian central bank starts to reduce interest rate levels in 2017. On the other hand, the unemployment levels should slightly rise in 2017, to 11.54% and remain above 10% until 2021.

In 2016, the Chinese economy had the worst performance of the last 20 years by growing 6.59%, yet meeting expectations. This growth was supported by the increased levels of public investment in infrastructure and bank lending.

Although in 2016 unemployment rate remained at around 4% and inflation rate around 2%, food retail sales declined from 17% in 2015 to 9.10% in 2016.

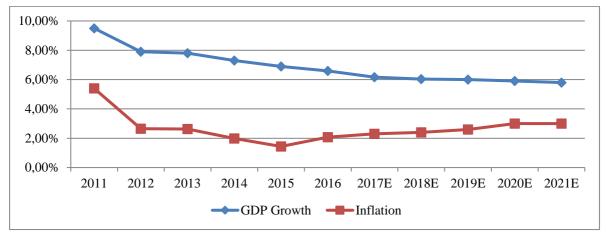


Figure 5: Chinese GDP growth and Inflation level YoY% 2011 – 2021E

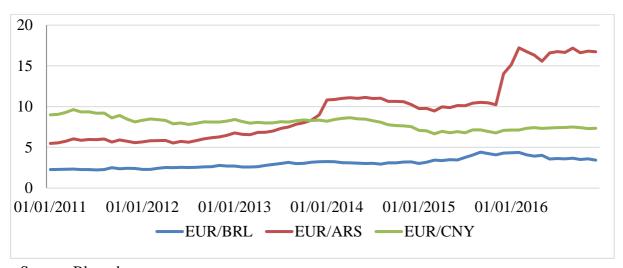
Source: International Monetary Fund, World Economic Outlook Database, October 2016 and Bloomberg

The IMF expects the Chinese economy to continue declining its growth levels. A trend that was iniciated in 2012. In 2017, GDP estimates point to a 6.17% growth. By 2021, the IMF expects a 5.80% GDP increase. In terms of inflation and unemployment, they should remain stable with unemployment rate of about 4% and a slight increase in inflation to 3% by 2021.

The high levels of debt and the dependency on fiscal stimulus measures are considered the major threats to economic growth.

# 3.3. Exchange rates

Figure 6: Exchanges rates evolution, 1 EUR versus EM currencies 2011 – 2016



Source: Bloomberg

Currency exchange rate play a central role in global trade and have its impact in the results of multinational companies.

Considering the euro against the Brazilian real, we can see that during 2016 the trend of appreciation of the euro against the Brazilian currency ended. In 2016, one euro was worth 4.37 Brazilian reais and at the end of the year it worth 3.42 Brazilian reais. The Brazilian central bank interviened several times in the foreign exchange markets, during 2016, in order to devaluate the real and offset a rise in commodity prices. This devaluation of the euro harms companies that sell goods in Brazil but present its results in euros.

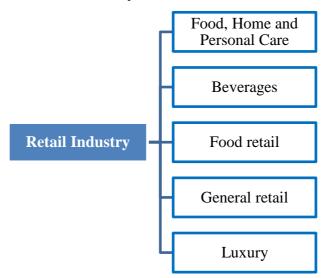
Since 2011, the euro is appreciating against the argentinian peso, but last year there was a major adjustment. In the beginning of 2016, the euro was worth 10 Argentinian peso but finished the year at around 17 Argentinian pesos. The exchange rate pressure was due to an increase of interest rates by the central bank. This appreciation of the euro has a positive effect on companies earnings, because it inflates the results by increasing the performance of companies due to a foreign exchange gain.

The Chinese yuan appreciated against the euro, in 2016, and finished the year at 7.33 CNY per euro. Pressured by the great amount of capital outflows, the Chinese central bank was forced to intervene to keep the yuan from major drops. This intervetion resulted in an increase in the yuan value against its peers.

# 4. FOOD RETAIL INDUSTRY IN EUROPE

The retail industry is characterized by companies that produce and sell goods and services. Inside this broad industry, there are five sectors that specialize in the production and sale of a certain type of products that cover different consumer needs and have different features.

Figure 7: Composition of retail industry



Source: HSBC Food Retail, EMEA Equity Research 2012

The food retail sector is a sub sector of the retail industry and focus on the sale of consumer goods mainly groceries, but also some non-food products as hygiene and similar products. Within the retail industry, the food retail is the largest one in terms of sales volumes.

Food retail companies have a determinant role in national economies by connecting producers and consumers. Being the point of contact between producers and consumers, retailers offer advantages to both. Retailers give producers access to a number of consumers that the producer alone was not able to reach. In addition to distribution channels, retailers give producers logistic platforms and other related services. Considering the advantages to consumers, the fact that retailers have contact with different producers allow consumers to have quick access to a wide variety of products, in a single place.

Food retailers operate through several store formats; each one has a different size, offer the client a different experience and a different number of products. The most common formats are:

- Hypermarkets, represent the biggest store size (between 2,500 m<sup>2</sup> and 5,000 m<sup>2</sup>) and offer a wide variety of food and non-food products;
- Supermarkets, have a medium size (between 400 m<sup>2</sup> and 2499 m<sup>2</sup>) and offer essentially food products but also a limited number of non-food products;
- Discounter stores, do not have a defined size pattern and sell a very limited quantity of products and brands at low prices;

- Convenience stores, are small stores with a limited offer of food products, located in neighborhoods, close to customers;
- Cash and Carry, are stores targeted to professional clients of the HORECA channel, generally sell products in bulk and at low prices;

# 4.1. Features of European food retailers

The fact that retailers connect producers and consumers is increasingly important in a context of a single market, has it happens in the European Union. They allow a better disposal of products between Member States and a more efficient use of agricultural products, food processing and non-food products.

The High Level Forum, created by the European Commission, calculates that the whole food supply chain represents 6% of the European Union GDP and employs more than 48 million people. Additionally, food retail sales account for 42% of the total retail sales in the European Union.

In Europe, traditional retailers and modern retailers compose the food retail industry. The traditional food retailers are small businesses, sometimes family owned, that are present in neighborhoods and offer a limited amount of food products. Modern food retailers are characterized by having several stores, in different locations, sometimes with different formats depending on the target consumer, with organized distribution channels and logistic platforms. Some of these modern food retailers have different brands for the different formats offered to clients. Modern retail accounts for more than 65% of the European food retail sector.

According to the Eurostat, in 2015, 12.3% of household expenditure of consumers in the EU 28 Member States was spent on food and non-alcoholic beverages. Considering only the Euro Zone Member States, this percentage increases slightly to 12.7%. In the case of Portugal and Spain, the expenditure on food and non-alcoholic beverages was above the European average. In Spain was 13.4% and in Portugal was 17%.

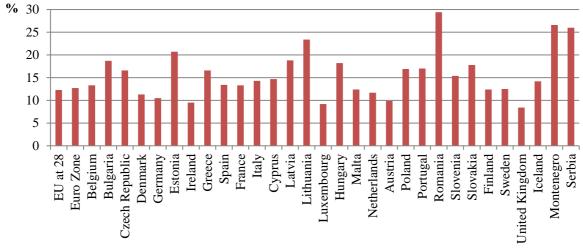


Figure 8: Household expenditure on food as a percentage of household income 2015

Source: Eurostat

Having a high weight on household expenditures, it is important to understand what are the key features that a consumer looks before he purchase a product.

According to a Nielsen Company research, the three most important features that European food consumers look on grocery purchases, by order of importance, are:

- 1. Price:
- 2. Package and label design;
- 3. Healthy products;

The recent economic and financial crisis that affected several European countries played its role in setting consumer priorities. Consumers now search for the best value for money instead of purchasing superior quality products at higher prices.

#### 4.2. Impacts on the sector

Investors see the food retail sector as a defensive sector, essentially because it is little affected by major economic downturns.

However, there are some indicators that have impact on food retail sales because they affect household expenditure.

Considering macroeconomic factors, the sector is essentially impacted by GDP growth levels, inflation, consumer confidence and unemployment rate. All of these indicators have a strong

influence on households and consumer spending and affect all types of retailers, even those who sell groceries. In the case of inflation, it can affect both companies and consumers in different ways. It reduces consumer purchasing power and affects retailers because it makes companies reducing margins, in order to offer the most competitive prices.

Beyond macroeconomic indicators, there are social factors that impact food retail sales. Among them, population growth is one of the most relevant because it impacts household composition, therefore impacting consumer spending on groceries and essential products. Additionally, with technology and health developments, new consumer habits appear and influence consumers when it comes the time to shop.

# 4.3. Sector Trends in Europe

The European food retail sector has been changing since the 1980's decade and recently the changes continue.

Nowadays, the industry is changing in seven major ways, all of them in an attempt to grow sales and offer the lowest prices possible, in a very competitive environment and in a hard macroeconomic context.

Private labels

More discount stores & hypermarkets

International Expansion

Creation of purchasing groups

In store tech & e-commerce

Loyalty Programs

Less traditional retail

Figure 9: Food retail sector trends

Source: HSBC, Food Retail, EMEA Equity Research 2012

One of the sector trends is the creation of private labels by retailers. This private label products result from agreements between retailers and manufacturers, where the manufacturer produces the product and the retailer sells it under its own brand. These products have more competitive prices than international brands and allow retailers to have higher margins. Additionally, allow manufacturers to produce at full capacity or make better use of their production capacity.

Has we have seen previously, the first priority of European consumer is the products price; therefore, private label products are becoming increasingly important to food retailers in several European countries. For example, in the United Kingdom and in Spain, these products account for 41% of grocery sales. This is the highest rate among European countries.

In order to offer the lowest possible prices and gain bargaining power, retailers started to form purchasing groups. These groups are companies constituted by several retailers and can be formed at regional, national or international levels.

Purchasing groups allow retailers to concentrate their purchasing orders, therefore by ordering higher volumes, benefit from economies of scale and better prices. These purchasing groups are often constituted to purchase products to be sold has private labels, thus reducing its prices to costumers.

A third way that European retailers have been exploring to grow its sales is expand their presence to other markets beyond their national markets. The national markets are characterized by strong competition and few ways to significantly grow sales. The expansion of the European Union was a very important step to retailers. In general, the new joiners had a strong presence of traditional retailers and less competition, thus offering growth opportunities to companies used to competition and with consolidated models in their home countries.

In addition to new Member States, food retailers expanded to Emerging Markets, outside Europe. Some of these markets have a cultural link to European countries, thus facilitating expansion and brand awareness. Furthermore, the Emerging Markets have greater sales growth opportunities.

European retailers had different approaches when expanding to new markets. Some companies acquired local retailers, taking advantage of an already built network of stores and logistic platforms, in addition to the brand awareness of the acquired company in that country.

The other expansion methods are joint ventures with local retailers; creation of their own subsidiaries in the new countries; and through franchising.

The fourth food retail trend is the increasing number of discount stores and hypermarkets. Discount stores expansion is related with the price level that this type of stores offer to clients. Being the first priority of European consumers the price, discount stores are a natural choice to consumers when they want to buy essential daily products.

The increasing number of hypermarkets is related with the differentiated offer that food retailers want to bring to the market. Many retailers, in an attempt to increase sales and margins, started to sale a wide variety of non-food products like electronic products, home accessories and others. Hypermarkets, by being the largest type of stores, are able to offer several food and non-food products, in one single place. By offering these products in the same place, it is more likely that costumers buy both types of products in the same stores.

Traditional retail has been suffering from great competition in the food retail market, because small businesses cannot compete in price and in the number of products available, with large retailers. Traditional retailers are closing or entering in partnerships with large retailers. These partnerships help both parts. They benefit modern retailers because they expand their presence to new locations, take advantage of the traditional retailers' knowledge of the geographic area and the connection between retailer and local consumers. To the traditional retailer, it is guaranteed that it does not close its business and, sometimes, they benefit from store renewals and other improvements on the store and on its services.

Recently, loyalty programs became a common practice in the food retail industry. These programs have different formats but their goals are to create a client base that returns to the same retailer to shop and to make the costumers buy more products than needed to take advantage of promotional prices in selected products or other advantages. These loyalty programs can work through coupons, discounts to consumers who own loyalty cards or collecting points/money to use in future purchases. In addition, these programs allow retailers to know customers habits and provide a more tailored service.

The last trend in the European food retail sector is the introduction of in-store technology and the creation of e-commerce platforms. Both trends have the same premise, make shopping easier and quicker.

In store innovations include self-checkout, where clients scan and pay their products by themselves, often used in small purchases; digital shelf labels that can be used to quickly adjust products prices by the managers; and scanning machines that allow consumers to scan the products they want to buy and then proceed to checkout, the products are then delivered to the costumer.

E-commerce on the retail food sector is based on consumers getting their products from the retailer website and, after that, receiving them at home or catching them up at a pick up point. Some brands are trying to implement the "buy online, pick up at store" strategy that has much lower costs. The food online shopping is increasingly allowing the purchase of more products, including even frozen products.

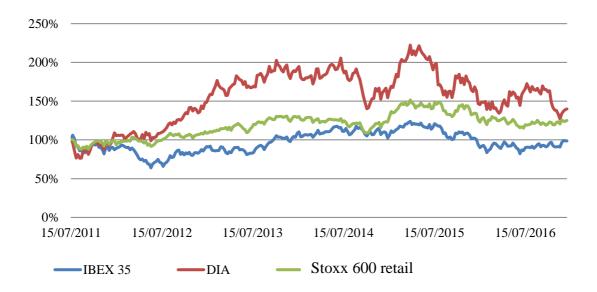
According to a McKinsey study, the food online sales represent almost 3% of total retail sales in some European countries. Furthermore, the study reveals that there is a great amount of interest of consumers in shopping online. In Spain, in 2013, 49% of the consumers said that they would probably begin shopping groceries online in the short term.

This step towards online shopping, involves a large amounts of investments on website development and delivery vehicles and personnel; partnerships with other retailers, in order to provide customers with a large amount of pick-up points; and a good strategy that conciliates a wide range of available products with competitive prices.

The previous trends on European food retail sector show the high level of competitiveness of the sector along with a variety of strategies to increase sales and margin.

#### 5. COMPANY OVERVIEW

Figure 10: DIA performance versus IBEX 35 and Stoxx 600 Retail from 2011-2016



Source: Bloomberg

Distribuidora Internacional de Alimentación is a Spanish company involved in the distribution of food, household and beauty and health products, expert in the management of proximity stores.

Since July of 2011, DIA lists in the Madrid stock exchange and takes part in the Spanish index IBEX 35. The company started quoting with a price per share of 3.50€, which valued DIA at €2,378 million.

The company's emphasis is on highly competitive pricing and proximity to customers, convenience formats and a low cost distribution model. DIA is the world's number three hard discount food retail store operator.

DIA was founded in 1979, when the company opened its first store in Madrid, introducing a new concept on the Spanish food and retail sector, the discount store model. After 10 years DIA introduced franchising agreements on its business model.

After the company opened some stores in Spain, DIA decided to start its internationalization. First, the company expanded to Portugal, in 1993, and then Greece, Turkey and France. The French operations are already closed, since the IPO, as well as the Greek and Turkish operations.

In France, Carrefour bought DIA operations, which included 800 stores, for €600 million, in 2014.

In Greece, DIA stores were integrated in the partnership between Carrefour and Marinopoulos and converted into Carrefour banners, during the year of 2010.

In Turkey, the company sold its stores to Yildiz Holding A.Ş. and SOK Marketler Ticaret A.Ş, in 2013, for €30.9 million.

Following that, the company started its expansion to the Emerging Markets, beginning with stores in Argentina in 1997, after four years expanded to Brazil and, in 2003, to China.

The Group is organized into business units, according to the countries where it works: Iberia, that includes Spain and Portugal, are the oldest markets of the company and are the template for the other markets. The second business unit is Emerging Markets, which includes Argentina, Brazil and China.

In 2016, the Group started its expansion to Paraguay with the acquisitions of Hartford, S.A.. It has five stores opened, following its franchising business model with a local partner.

DIA operates in these five regions through fully consolidated subsidiaries under the names of DIA Market, Fresh by DIA, DIA Maxi, La Plaza de DIA, Max Descuento, Clarel, El Árbol, Cada DIA, Minipreço and Mais Perto.

Overall, DIA has 7,799 stores worldwide, which 3,830 are proprietary and 3,969 are franchises.

# **5.1 Strategy**

DIA Group strategy is follow customer trends and offer the lowest prices. The company offers several brands, which have different formats and target different client needs.

Since the IPO, in July of 2011, the business plan focuses on achieving organic growth by expanding its business in Iberia and in the Latin American markets.

For the next years the Group has three main concerns for the business: the first one, continuous improvement of the business model; the second is to begin a digital transformation in all levels of the Group. The last priority is to create and develop new business opportunities. Considering the second point of the strategy, DIA acquired Castanola Investments, which has the goal of creating and operate the company websites for the sale of products and services.

All these aspects are taken into consideration also in franchise, which the company believes is one of the best strategies to enter in new markets and maintain the proximity between DIA and its customers.

In addition to these priorities DIA bases its business strategy several pillars, which are:

- Proximity segment: the company specializes its business model in proximity. This
  model allows the company to provide its customers with every day grocery products,
  saving time and money in the process.
- Customer-focused: DIA has been adapting to the trends of consumer habits.
- Offer the best value of money: DIA wants to offer the best quality at the best price in
  the markets in which it operates. In order to have this price efficiency, DIA has been
  making agreements with competitors in the sector to increase the conditions of
  purchase, for consumers to have a better price. These trading agreements are, for
  example, in Spain with Eroski, Intermaché in Portugal and Casino for its private label
  products.
- A quality own brand: DIA has continuously developed and adapted its own brand to the needs of the consumer, in order to increase consumer loyalty.
- A unique loyalty program: DIA created 'Club DIA', which is a loyalty card that offers
  immediate discounts. Plus, it still has coupons that offer additional discounts in future
  purchases. Currently, 76% of the company's total sales are made through the use of this
  card.
- Continuous efficiency and process improvement: to guarantee the most competitive price, it is necessary to ensure efficiency in the process. In order to adapt quickly to the customer's needs, an efficient, profitable and agile logistics network must be assured.
- Franchise: nowadays, DIA is the leader of franchises in Spain and the number three in Europe in the distribution sector. The essential factors to develop this business model of proximity are commercial commitment and knowledge in the local market, that franchising model brings to DIA Group.
- Profitable growth: in the recent years DIA has been growing in international markets, mostly Argentina and Brazil. The effort on profitable growth sometimes means to discontinue some markets as happened with Greece, Turkey and France for example.
- Focus on an omni-channel approach: this strategy means an important advance in ecommerce, especially in Spain and China. DIA offers an online service in Spain and an

app that has great success. Also, the company has redesigned the Clarel website and developed the flash sales website 'Opportunities', which mostly sells electronic products. The company has exported this strategy to other countries, with the ecommerce in China and 'Opportunities' in Argentina.

#### **5.2 Business model**

The DIA Group has three different types of businesses: the proximity business, the supermarket business and the household and personal care, cosmetics and perfume business.

The proximity business represents 80% of the DIA Group total stores, it is the largest unit in terms of volume. There are six banners that belong to this type of business, which are:

Table 1: DIA proximity banners and its features

	Sqm	SKU's	Main characteristics
DIQ Z	400-700	2,800	Designed and placed in crowded areas for everyday shopping; Greater offer of groceries;
Dia Z	1,000	3,500	Make larger and less frequent purchases; Largest format;
DIQ  fresh	150	n.a.	Smaller format; Offer based on fruit, vegetables, meat, fish, bakery and some dairy products; Ampler opening hours (9:30am – 9:30pm).
Çada dia perto	n.a.	n.a.	Smaller format; Franchise format for small rural areas; Owner does not need to adapt the store to DIA format.

Source: Company report

The supermarket business represents 4% of total DIA Group stores. There are two brands that operate in this segment. El Árbol stores have a strong presence in Castilla and León, Aragon, Asturias and Galicia. In 2016, DIA started to convert El Árbol stores in La Plaza de DIA stores. Therefore, the company supermarket brands are:

Table 2: DIA supermarket banners and its features

	Sqm	SKU's	Main characteristics
la plaza "Dio 🗷	n.a.	5,000	Daily shopping with a range of products; More important to fresh products.
descuento	n.a.	4,000	Specialized in proving services to professionals (hotel, catering and food industries); Service is supplement by the telephone sales service, orders by e-mail.

Source: Company report

The household and personal care, cosmetics and perfume business represents 16% of total DIA Group stores.

Table 3: DIA personal care banner and its features

	SKU's	Main characteristics
clarel	6,000	Specialized in health, beauty, household and personal care, baby and pet care items.

Source: Company report

As mentioned before, one of the tendencies of the industry is the creation of private labels. DIA is in line with this trend because it has private labels for different products segment. DIA's private labels are: AS, for pet care and food; Bonté, for perfume and personal hygiene products; Basic Cosmetics, for cosmetics products; Delicious, is the brand for gourmet products; Baby smile and Junior smile, which are the brands for babies and toddlers.

DIA controls its stores under three management models. Company Owned Company Operated (COCO), this kind of stores are managed in a proprietary manner. This was the first DIA management model. The advantages to use this model are the ability to test new concepts before replicating to franchises and second, it is easily adapted to the business model. Almost all DIA Maxi stores are COCO, because of the higher complexity of management. Even with the

company betting more in the franchising model, COCO still characterizes the majority of stores.

The next two management models are associated with the franchising method.

Franchised Owned Franchised Operated (FOFO) has been rapidly growing and was the initial model of franchises. This method has been increasingly important to DIA Group because it brings proximity between franchises and customers, giving a personal service according to needs. At the end of 2016, FOFO stores represented 19% of total stores.

The last model is Company Owned Franchised Operated (COFO), a model implemented in 2009. According to this model, DIA makes the initial investment and then the management of the store belongs to the franchisee. COFO stores represent, in December of 2016, 32% of the total stores.

Table 4: COCO and Franchise stores per country

Stores by country and operational model							
	COCO	Franchise	Total				
Spain	2,728	2,147	4,875				
Portugal	367	256	623				
Iberia	369,728	258,147	627,875				
Argentina	296	576	872				
Brazil	379	671	1050				
China	60	319	379				
<b>Emerging Markets</b>	735	1566	2301				

Source: Source: DIA data of 30/12/2016

# 5.3 Ownership

DIA's board of directors is composed by ten members, of which eight are independent, one is executive and one is classified as external director. The head of the Board is Ms. Ana Maria Llopis and the CEO is Mr. Ricardo Currás.

Table 5: Top 10 DIA shareholders

Shareholder	% of Capital
Baillie Gifford & Company	10,48%
Vanguard Group	4,85%
Amundi Iberia	3,11%
Black Creek Investment Management	3,07%
Ameriprise Financial Inc	3,05%
Columbia Wanger Asset Management	2,87%
Blackrock	2,63%
Baillie Gifford & Co Ltd.	2,30%
Gam Holding	1,91%
Norges Bank	1,55%

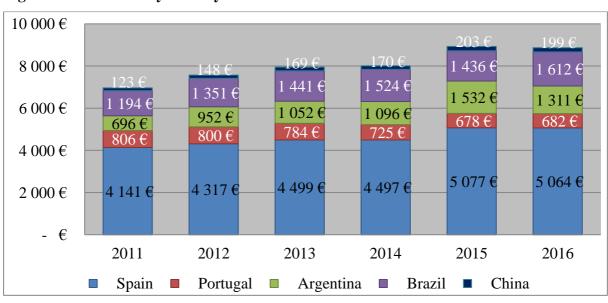
Source: Bloomberg and Company Consolidated Report 2016

Considering shareholder structure, DIA's top 10 shareholders are funds and asset management companies, in fact, 90% of the company shares are owned by this kind of firms. The major shareholder is Baillie Gifford & Company with 10.48%, followed by Vanguard, which owns 4.85%, by holding DIA stock in several different funds, and Amundi Iberia with 3.11%.

DIA has 622.5 million shares outstanding, 98% of which spread on free float. Has mentioned before, DIA stock trades in the Madrid Stock Exchange.

## **5.4 Geographic Presence**

Figure 11: DIA sales by country 2011 – 2016



Source: Bloomberg and Company Consolidated Report 2016

DIA is present in five countries and three continents. In Europe, the company has stores in Portugal and Spain; in South America, Brazil and Argentina; and in Asia, it has stores in China.

Spain is the major market of DIA, accounting for more than 57% of the total sales at the end of 2016. According to figure 11, we can see that the evolution of the total sales is positive, only 2014 and 2016 show a slight decrease. DIA home country achieved €5,064 million in sales, in 2016. Spain is also the country with the highest number of shops. The biggest increment in the number of shops was from 2012 to 2013, with an increase of 1,226 shops. At the end of 2016, Spain had 4,875 stores, which represent 62.51%¹ of DIA's total number of stores, a decrease comparing with 2015, due to the closure of some El Árbol and DIA stores with poor levels of sales. The ratio of sales by store in Spain was around €1,038 million, in 2016.

Portugal is the second consolidated market. It represents 7.69% of the total revenue and 623 stores. The declining trend on sales has ended in 2016, year in which sales grew around €3 million. The same trend was seen in the number of stores that increased in 2016. In Portugal, 367 stores are COCO and the remaining stores are operated by franchisees.

Iberia is the DIA segment that most contributes to the company results. Portugal and Spain together registered €5,745.95 million in sales and a total of 5,498 stores.

The most important Emerging Market for DIA is Brazil with 18.18% of the total sales and almost 13.5% of the stores of the Group. Last year, Brazil showed an increase on the total sales of 2.09% compared to 2015, achieving €1,612 million. Considering the number of stores, it has been expanding; in 2011 Brazil had 480 and, at the end of 2016, it has 1,050 stores. Most of Brazilian stores of DIA are operated through franchise. Of the 1,050 stores, 671 are franchises. Although Brazil has faced a difficult macroeconomic context, with a severe recession, these economic conditions played in DIA's favor. It's strategy of proximity and highly competitive prices have been in the center of this performance, also important is the high levels of implementation of the loyalty program, Club DIA, which achieved 4 million members.

Argentina is the third most relevant geography for DIA. It was surpassed by Brazil in 2016. It represented around 15% of total revenue in 2016 and 11% of the total number of stores. In 2016, DIA achieved 1050 stores in Argentina, however revenue decreased by 14% to €1,310 million. It was the first fall in sales in the period 2011 − 2016. The number of stores continued

<sup>&</sup>lt;sup>1</sup> See annex 5

to expand with 26 openings. But the economic conditions, such as the hyperinflation registered last year and the massive Argentinian peso devaluation and penalized sales performance. As it happens in Brazil, most of DIA stores in Argentina are FOFO with only 296 stores being company owned and company operated.

China is the Emerging Market with the worst performance. The country only represents 2.24% of the total sales. It has 379 stores, a decrease comparing with 381 stores in 2015. Sales, in 2016, achieved €198 million. The expansion in China has been essentially focused on the opening of franchises in the Shanghai region. Of the 379 stores, 319 are FOFO and 60 are COCO.

Emerging markets<sup>2</sup> represented 35% of the total sales and 30% of the total number of DIA Stores. In these geographies, the company expects to benefit from rapid growth, creating value to the company and contradicting the low levels of expansion of its consolidated markets. As explained earlier, the growth strategy in these markets is trough franchising and gradually trough the opening of COCO stores. DIA Market and DIA Maxi are the only banners available in the Emerging Markets.

## 5.5 Company events

At the end of 2016, DIA announced the opening of the first stores in Rio de Janeiro, Brazil. The company is expecting to open 32 stores, through an agreement that was made with a local partner to expand its operations in the region. This is a major step to DIA Brazil because Rio de Janeiro, is the second biggest Brazilian city.

With this new city, DIA increases its presence to five Brazilian cities: São Paulo, Minas Gerais, Bahia, Rio Grande do Sul and, now, Rio de Janeiro. DIA Brazil has shown an increase year-on-year on the number of stores, from 480 in 2011 to 1,050 in 2016.

Recently, the company has opened a new warehouse near São Paulo to supply its network stores. The Group has already six warehouses in Brazil.

DIA made an agreement with EROSKI Group and emerged the Red Libra Trading Services, owned 50% by each company. This new organization has the main goal of improving price-quality ratio of products to consumers, by strengthening the purchase and negotiating powers

<sup>&</sup>lt;sup>2</sup> See annex 5

of both companies with suppliers. This partnership will allow both companies to decrease prices of own-label products and the purchase of materials for their stores at more competitive prices.

During 2016, some digital developments have been undertaken, with agreements that put DIA at the top of the sector in the area of e-commerce. One example of this initiative is the agreement that DIA Spain made with Amazon Prime Now to have an online shop of La Plaza de DIA products. This agreement enables customers to make their food purchases online, every day, and they can choose the place in Madrid where they want to receive the order, with delivery within 1 to 2 hours, since the order. This innovation included the creation of 47 new jobs and all of DIA own-label products are available.

As in Spain, DIA China signed an agreement to promote the company's online commerce in China through the Kaolo.com application that is owned by Netease. This initiative permitted costumers to buy Spanish brands and local brands. In China online sells represents 16% of the country's total retail sector. Despite the recent bet on online sales, the company announced that operations in China will be treated as discontinued in 2017, due to poor performance.

## **5.6 Competitors**

In order to give a broad picture about the European food retail industry, we selected five European companies that operate in the food retail sector.

We choose these companies because, as DIA, they take part in their countries stock indices, as well as, in the Stoxx 600 Retail index; they operate in more than one country and more than one continent; and their core business is food retail. Considering the similarities in their profiles, they are often compared with each other, when performing analysis of the food retail sector.

## 5.6.1. Jerónimo Martins

The Portuguese company was founded in 1792, which has the name of its founder, operates in the food retail industry. According to a Deloitte report<sup>3</sup>, this company is the leader in the Portuguese market.

Jerónimo Martins is known by its store proximity, aligned with competitive prices and promotions the company often implements.

<sup>&</sup>lt;sup>3</sup> Deloitte Power of Retailing 2017

The company has two different segments in Portugal: supermarkets (413 stores) and cash & carry stores (42 stores). In its Portuguese portfolio, it counts with two food retail brands, Pingo Doce and Recheio and two specialized retail brands, Hussel and Jeronymo.

The Group has also stores in Poland and Colombia. In Poland the first store opened in 1997, under the brand Biedronka, and currently it has 2,722 shops. Poland is Jerónimo most important market, representing around 69% of the company sales in 2016.

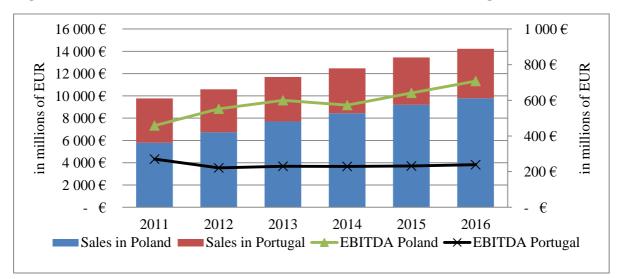


Figure 12: Jerónimo Martins sales and EBITDA in Poland and Portugal 2011 – 2016

Source: Bloomberg

In Colombia, the name of supermarkets is Ara, the first store was opened on 2013 and, nowadays, it has 221 stores.

The Group had, at the end of 2016, €14.622 million in sales, achieving the highest level of sales it has ever had. In the period 2011 – 2016 the company has a sales CAGR of 8.25%.

This performance was mainly due to the growth of sales in Poland, the consolidation and brand renewal in Portugal and the investments in Colombia, that are starting to pay off.

The company had also a constant EBITDA margin of around 5.70%, since 2014. Earnings per share in 2016 were 0.94€, the highest since 2010.

Jerónimo Martins is one of the biggest companies in Portugal, with a market capitalization of €9,275.80 million. It is one of the constituents of the Portuguese index, PSI 20.

## 5.6.2. Casino Guichard Perrachon

50 000 9,00% 45 000 8,00% 7,00% in millions of EUR 35 000 6,00% 30 000 5,00% 25 000 4,00% 20 000 3,00% 15 000 2,00% 10 000 1,00% 5 000 0 0,00% 2011 2012 2013 2014 2015 2016 Sales —EBITDA margin

Figure 13: Casino Guichard Perrachon sales vs EBITDA margin 2011 - 2016

Source: Bloomberg

Casino is a French company that was officially founded in 1898, by Geoffroy Guichard, and it is listed on Euronext Paris since February 1989.

In France, the company has several format banners and each Casino banner benefits from a specific identity for consumers. The company has supermarkets, hypermarkets, convenience stores, discount stores and e-commerce, within each of these channels the company as several banners.

The hypermarkets format of Casino is Géant, with 129 stores, and has four brands that operate in this segment. In a supermarket format, Casino has 445 stores, which are essentially located in city centers or in rural areas. Also, it has convenience stores in franchising model that are grouped under five brands.

The company has geographical presence in Brazil, Colombia, Argentina and Uruguay. Casino also has different banners in these markets.

In Brazil, Casino is the main shareholder of Pão de Açúcar, which is the largest food and non-food retailer.

In Colombia, Casino is the principal shareholder of Grupo Éxito with more than 50% share. Éxito is the largest food retailer in the country.

In Argentina, Casino has a subsidiary that is Libertad, which has 24 stores opened and is in fourth position in the retail sector in Argentina.

Casino acquired, in Uruguay, a local retailer company, Disco, and this company is the leader of the food retail industry in this country.

Although the company is present internationally, the home country is the one that registers the largest number of net sales, €20,771 million in 2016. It represents 57% of the Group sales.

The group's net sales were €36,030 million in 2016, which means a growth of 2% compared with the previous year.

The EBITDA also increased from  $\[ \in \]$ 1,689 million to  $\[ \in \]$ 1,697 million, but EBITDA margin was 2.98%, the lowest of the 2011 – 2016 period.

Last year, Net Income surged to 2,679€ due to the disinvestment in the Asian operations.

## 5.6.3. Carrefour

Carrefour is a French retailer set up in 1959 that operates through four formats, hypermarkets (1,462 stores), cash & carry (171 stores), supermarkets (3,227 stores) and convenience (7,075 stores). Recently, the company is focusing in the last two formats, due to the slower performance of hypermarkets. The company has a total of 11,935 stores in more than 30 countries that include France, Europe (excluding France), Latin America, Asia, Africa, Middle East and Dominican Republic.

Despite its worldwide presence, the largest business is in France (the home country represents 47% of total sales) and the second one is the rest of Europe (excluding France), which represents 26% of sales. Inside Europe (excluding France) segment, the most relevant country is Spain with 2016 sales of €8,049 million or 10.5% of total sales.

Outside Europe, Brazil is the most important geography. In 2016, sales were €11,772 million, the highest level in the period.

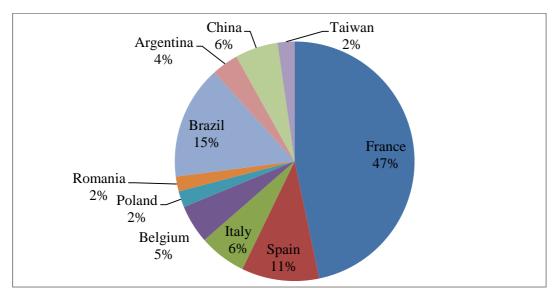


Figure 14: Sales by geography 2016

Source: Bloomberg and Company financial report 2016

The total sales were, in December 2016, €78,774 million, this value shows a slight decrease compared with 2015. After a rebound in 2015, sales declined last year due to a worst performance in France, Italy, Argentina and China.

EBITDA also declined, at the end of 2016 was €3,762 million, reducing 0.5% (constant exchange rates) from 2015. EBITDA margin dropped to 4.48% compared with 4.74% in 2015.

The Group quotes on the Paris Stock Exchange since 16 June of 1970, and takes part in the main French index, the CAC 40. Its market capitalization is around €17,310.2 million.

## 5.6.4. Tesco

Tesco is a British organization and it is one of the world's largest retailers. Jack Cohen founded it in 1919. The first store with the Tesco name opened in 1929. Tesco lists in the London Stock Exchange since 1947 and its market capitalization is £14,991.8 million or €19,041.3 million<sup>4</sup>. It is one of the members of the British main index, FTSE 100.

Tesco has hypermarkets, supermarkets as well as convenience stores. Over time, the company started to diversify its range of products, food, non-food products, financial services and telecommunications.

<sup>&</sup>lt;sup>4</sup> According to Bloomberg as of 21/04/2017

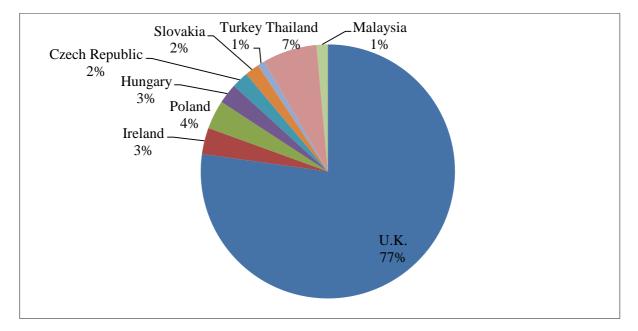


Figure 15: Geography presence weight on sales 2016

Source: Bloomberg and Company financial report 2016

In 1962 Tesco opened stores in Dublin, Ireland, and thirty years later decided to expand worldwide. The first country was France, through the acquisition of a local retailer but in 2010 they decided to leave France. After France, the company decided to open stores in the Eastern countries such as: Hungary (1994), Poland (1995), Czech Republic and Slovakia (1996). At the end of 90's, beginning of 00's, Tesco expanded to Asian countries. It started with some stores in Thailand (1998) then South Korea (1999), Malaysia (2002), China (2004) and India (2008). In the United States, the company is present since 2007. In total Tesco is present in 10 countries. Almost all internationalization was made through acquisitions.

Its home country, the United Kingdom, represents 76% of total sales in over 3,500 stores.

The most relevant international banner for the Group is Tesco Lotus, which is the company brand in Thailand.

The company's performance in 2016 was slightly better than in 2015, registering a value of €74,842.70 million in sales. This sales performance was due to the 5% growth in the U.K. along with a 12% growth in Thailand. The EBITDA recovered from negative territory in 2015 and in 2016 recorded a €3,272.40 million.

The EBITDA margin was 4.37% in 2016, following a -7.37% in 2015. Historically, the margin is around 8.83% and 6.60%.

### 5.6.5. Metro AG

The merger of three retail companies, Deutsche SB-Kauf AG, Asko Deutsche Kaufhaus AG and Kaufhof Holding AG, created Metro AG in 1996. It is a German company based in Dusseldorf. Since 1996, Metro AG started to be listed on the German Stock Index. It also takes parts in the German main index, the DAX 30.

Metro AG has different business areas, with diverse brands for each business segment: Metro/Makro in the Cash & Carry segment is responsible for the group's wholesale business; it is a leading international player in self-service wholesale trade. The wholesale format is targeted to professional clients, such as hotels and restaurants.

Metro AG also has its own brand of consumer electronics and related products, Media Markt and Saturn. In the case of Media Market and Saturn the company had 1,023 stores at the end of 2016.

In the hypermarkets segment, Real is the name of the brand. It is one of the market leaders in Germany. This segment was created in 1992, from the merger between thirteen hypermarkets operators. In 2006, the Group acquired Wal-Mart's hypermarkets in Germany. This brand includes stores and online retail of food and non-food products. At the end of 2016, it had 285 stores.

The brand that operates in Cash & Carry segment is present in 25 countries in Europa and Asia. Metro/Makro has a total of 752 stores, with 106 in Germany.

Additionally, Metro owns the website Redcoon in which the company offers consumer electronics products with discounts. With online shops in numerous countries, Redcoon is also one of the largest European retailers in this segment. This brand has a variety of products such as: computers, televisions, audio, smartphones, etc.

Geographically, the most relevant country in sales terms is Germany, which weights 39%, followed by France (7.1% of sales) and Russia (6.1%).

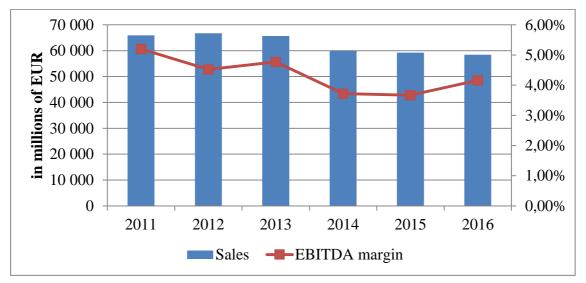


Figure 16: Metro AG sales and EBITDA margin 2011 - 2016

Source: Bloomberg and Company financial report 2016

Sales have been decreasing since 2011 and registered the worst performance in 2016 by reaching €58,417 million. In 2016, the low levels on both retail and wholesale in Russia and Poland penalized the company.

EBITDA margins have been stable around 4% in the last couple of years, but in 2016 the company managed to improve the margins to 4.16% or €2,428 million in absolute terms.

## 6. FINANCIAL STATEMENT ANALYSIS

The performance of a financial statement analysis allows us to perceive the company's features by using metrics that translate how the company is managed.

We make this analysis using historical data between 2011 and 2016. The metrics used give a full picture of company sales and margins, profitability, liquidity, solvency, capital structure and dividend policy.

### 6.1. Sales and EBITDA

€12 000 8,00% €10 000 e8 000 €6 000 €4 000 7,00% 6,00% 5,00% 4,00% 3,00% 2,00% €2 000 1,00% €0 0,00% 2011 2012 2013 2014 2015 2016 Revenue **—**EBITDA margin

Figure 17: Revenue and EBITDA margin 2011- 2016

Source: Company annual reports and Bloomberg

In this report we analyze DIA performance between 2011 and 2016. During this period, we see first a decline in revenues from 2012 to 2013, when it dropped 18%, from  $\[ \in \]$ 9,839 million to  $\[ \in \]$ 8,040 million. Then, a recovery starting in 2015, to  $\[ \in \]$ 9,022 million. The highest sales level was registered in 2011,  $\[ \in \]$ 9,844 million. Sales CAGR during this period was 1.87%.

Last year, sales achieved €8,978.60 million, which represents a 0.48% decline comparing with 2015. Sales were affected by a decrease in sales of both Iberia and Emerging Markets.

Iberian sales were €5,745.95 million, which is less 0.15% than in 2015. Sales were affected by the closure of 66 El Árbol and DIA stores in Spain and also by the improvements that the company is making in several stores.

In 2016, like-for-like (Lfl) sales grew 8.7% considering all regions, mostly due to the 19.1% growth of Lfl sales in the Emerging Markets. In Iberia, Lfl sales increase 1%.

Emerging Markets sales were affected by unfavorable currency exchange rates. During the period between 2011 and 2016, the Emerging Markets had sales CAGR of 9.18%. The highest sales CAGR was 13.50% in Argentina, followed by 10% in China.

Considering the foreign exchange rate effect, sales in Emerging Markets declined 1.55% to €3,121.60, mainly due to the 14.45% decline in Argentina (€1,310.88 million in 2016). In Brazil, sales grew to €1,611.87 million from €1,435.63 million, the implementation of the

loyalty program "Club DIA" in São Paulo was one of the reason of this improvement. It was implemented in 2016 but already counts with 4 million customers.

Table 6: Emerging Markets sales in millions of EUR FY2011 - FY2016

Emerging Markets Sales							
	2011	2012	2013	2014	2015	2016	CAGR
Argentina Sales in ARS	3 998,00	5 566,80	7 668,00	11 808,00	15 753,00	21 418,90	39,89%
% yo	y	39,24%	37,75%	53,99%	33,41%	35,97%	
Brazil Sales in BRL	2 780,30	3 390,60	4 134,40	4 757,70	5 311,40	6 217,90	17,47%
% yo	y	21,95%	21,94%	15,08%	11,64%	17,07%	

Source: Bloomberg

In table 6 we have sales in Argentina and Brazil, excluding currency effects from 2011 until 2016.

In Argentina, between 2011 and 2016, sales CAGR was close to 40%. In 2016, sales achieved the highest level in the period, ARS 21,418.90 million. The use of DIA loyalty card "Club DIA" is very high in Argentina and that makes people return to shop at DIA to take advantage of promotions and low prices in selected products. Additionally, DIA's pricing levels and its image of discount retail makes it a very competitive brand in countries in recession or with poor macroeconomic environments.

In Brazil, sales CAGR during the analyzed period was 17.50%. Last year, sales achieved their highest level in the period, BRL 6,217 million.

DIA sales strategy, in 2016, was to offer daily and weekly discounts in, at least, 15% of its products. This was only possible because it has a high penetration of own-brands in its main markets. In Iberia, 50% of sales are own-brand products and in Emerging Markets 35%.

In 2016, EBITDA was €39 million higher than in 2015 and the EBITDA margin was 5.88%<sup>5</sup> This was the result of a reduction in COGS due to improved purchasing power as a result of the partnership between DIA and EROSKI and cuts in fixed costs due to the cost improvement plan implemented. DIA EBITDA margin was between 5% and 6.75% during the period, which is higher than some of its European competitors<sup>6</sup>.

<sup>6</sup> See annex 6 – Industry Competitors.

<sup>&</sup>lt;sup>5</sup> See annex 1 – Income Statement.

EBIT in 2016 was €295 million, a €20 million improvement comparing with 2015. DIA's EBIT margin was 3.33% last year, which is below the 2011 to 2016 average of 3.42%. EBIT margin was higher than industry average that is 2.34%.

We can conclude that the expansion in Argentina and Brazil has been having a positive contribute to DIA sales and the expansion in these two countries has been successful by maintaining high growth rates through the years. Yet, their contribute to DIA consolidated results depends on the currency exchange rate fluctuation. This impact was very clear when translating to euros the sales in Argentina in 2016. Although in Argentinian pesos sales grew by 36%, in euros DIA registered a 14% decrease on sales.

Table 7: New stores by geography FY2011 - FY2016

New Openings								
	2012	2013	2014	2015	2016			
Iberia	117	1295	623	147	-64			
Spain	98	1226	630	160	-66			
Portugal	19	69	-7	-13	2			
<b>Emerging Markets</b>	177	235	220	265	145			
Brazil	81	106	132	130	121			
Argentina	64	84	81	122	26			
China	32	45	7	13	-2			

Source: Company annual reports and Bloomberg

In 2016, Spain saw a decrease in the number of stores due to the closure of El Árbol and DIA stores, as already mentioned.

In Brazil, DIA opened 121 new stores and achieved 1,050 stores in this country. In Argentina, store expansion also continued with the opening of 26 new stores. Argentina is now the third country with the highest number of stores, 872 stores. In the Emerging markets, most stores operate under franchise. This is part of the expansion plan of DIA.

## **6.2. Profitability Analysis**

25,00% €1 800,00 €1 600,00 20,00% €1 400,00 €1 200,00 15,00% €1 000,00 €800,00 10,00% €600,00 €400,00 5,00% €200,00 0.00% €-2011 2012 2013 2014 2015 2016 Invested Capital  $\rightarrow$ ROA ROIC ROS

Figure 18: Economic profitability ratios

Source: Author's calculations with company annual reports and Bloomberg data

In order to evaluate DIA's economic profitability, figure 18 shows the return on assets, the return on invested capital and the return on sales, along with the absolute values of invested capital.

The values of ROA have been decreasing since their peak at 7.78%, in 2014. In 2016, ROA was 5.58%. The lower the ROA value, the worst and this downward trend means that the company is decreasing its efficiency using its assets to generate net income. It also means that every euro that DIA invested in assets, in 2016, generated €5.58 of net income. This corresponds to a decrease of €0.26 comparing with 2015 and a decrease of €2.17 comparing with 2014 ROA result.

After a decreasing trend between 2013 and 2015, ROS shows some recovering in 2016. Last year, return on sales was 2.33%, which means that 2.33% of sales where converted into profit.

During the 2011 to 2016 period, the highest ROS level was 3.12% in 2013. Therefore, we can conclude that DIA is being less efficient in converting sales into net income.

Considering ROIC, it is decreasing since 2012 and reached 12.06% in 2016. This decrease in the return on invested capital means that DIA is reducing its efficiency using the capital invested in the company. In other words, in 2012 it generated 0.23 of profit per 1 invested and now it only generates 0.12 of profit per 1 invested.

This loss of efficiency compares with an increase in the levels of invested capital, which achieve €1,712.90 million, the highest in the period.

Not included in figure 18<sup>7</sup>, but also an important efficiency metric is the total assets turnover. This ratio expresses how a company generates sales using its assets. During 2011 to 2016, the assets turnover fluctuated between 2.94, in 2011, and 2.26, in 2016. As we have seen with prior ratios, DIA is losing efficiency. In this case is generating a lower level of sales when using its assets. Although the assets turnover has been decreasing, it remains in line with its peers.

Table 8: Financial profitability ratios FY2011 - FY2016

Financial Profitability								
	2011	2012	2013	2014	2015	2016		
Fixed Expenses Effect	23,63%	27,68%	31,43%	28,80%	24,37%	25,93%		
D&A Effect	43,87%	53,40%	65,20%	63,70%	56,16%	55,88%		
Equity Turnover	9,19%	7,20%	3,71%	1,84%	1,89%	1,32%		
Return on Equity	90,21%	99,14%	106,76%	87,20%	95,54%	44,38%		

Source: Author's calculations

Return on Equity (ROE) is one of the most used ratios in corporate finance and financial statement analysis. It divides net income by equity. In 2016, DIA's ROE was 44.38%, the lowest in the period.

Considering the fixed expenses effect, it divides EBITDA by the amount of gross profit. Since 2013, this ratio has been declining mostly due to the gross profit. Fixed costs, as personnel costs and other operating fixed cost, have been rising. The combination of both, in 2016, was €1,508 million.

**Table 9: Operating profitability ratios FY2011 – FY2016** 

Operating Profitability								
	2011	2012	2013	2014	2015	2016		
Gross Profit Margin	21,49%	21,48%	21,74%	22,04%	22,44%	22,97%		
EBIT Margin	2,23%	3,17%	4,46%	4,04%	3,07%	3,33%		
Cash Flow Margin	4,46%	4,10%	5,43%	4,30%	2,16%	8,61%		
Profit Margin	0,97%	1,51%	2,47%	4,11%	3,35%	1,96%		

Source: Author's calculations

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<sup>&</sup>lt;sup>7</sup> Full table in Annex 11

Regarding operating profitability, table 9 includes the gross profit margin, the EBIT margin, Cash flow margin and profit margin.

Starting with the gross profit margin, it divides gross profit by the amount of sales and gives a picture of how much the company saves of its sales after paying the cost of goods sold. Since 2011, gross profit margin has been stable floating between 21.48% and 22.97%. This means that the company retains an average of 22% of its sales after paying the cost of the goods it sold. This level of gross profit margin is in line with the average in the food retail sector.

EBIT margin indicates the percentage of sales that remain after paying COGS and operating costs including D&A. In this case, the average EBIT margin is 3.42% during the 2011-2016 period. In 2016, there was a recovery in the margin, which ends the declining trend since the peak in 2013.

The cash flow margin divides the operating cash flow that we can find in the cash flow statement, by sales. The higher the ratio, the better; it means that the company is efficient in turning the amount of sales into cash. In 2016, the cash flow margin was the highest in the period, 8.61%, which means that 8.61% of sales turned into cash. Between 2011 and 2016, the ratio was always higher than 2%, and it was never into negative territory meaning that it does not have to raise money from investors or borrow it.

Finally, profit margin tells investor the percentage of sales that turned into profit. This ratio divides net income by sales. On average, DIA turned 2.40% of its sales into profit. Last year, profit margin decline to 1.96% after registering 3.35% in 2015.

## 6.3. Liquidity and Solvency Analysis

The three main liquidity ratios are the current ratio, the quick ratio and the cash ratio. We calculated these ratios to understand if DIA is able to pay its short-term debt.

Table 10: DIA liquidity ratios FY2011 - FY2016

Liquidity Ratios								
	2011	2012	2013	2014	2015	2016		
Total Liquidity Ratio	0,97	0,96	0,95	0,88	0,91	0,90		
Current Ratio	0,47	0,48	0,48	0,53	0,51	0,59		
Quick Ratio	0,22	0,23	0,21	0,22	0,19	0,27		
Cash Ratio	0,13	0,16	0,12	0,10	0,08	0,16		

Source: Author's calculations with company annual reports and Bloomberg data

First, the current ratio, which divides current assets by current liabilities, increased during the period due to a decrease in the current liabilities. The ratio is always lower than 1, which means that current assets do not cover the total amount of current liabilities. Current asset do not change much over this period and, last year, were €1,409 million. Current liabilities have been decreasing, mainly in 2013 and 2014. Last year, current liabilities were €2,369 million.

Quick ratio uses only the most liquid assets of the balance sheet. This ratio achieved its highest value in 2016. Although there was a 10% increase in current liabilities, the increase in cash and equivalents compensated meaning a higher ratio.

The cash ratio uses only the most liquid assets, which are cash and equivalents and marketable securities. The results give the same message than the previews ones. Although the ratio doubled from 2015 to 2016, due to an increase in cash and equivalents, during the period, the most liquid assets are not sufficient to pay DIA current liabilities.

Concluding, DIA cannot pay its current liabilities using only its current assets.

Table 11: DIA capital structures and debt coverage ratios FY2011 - FY2016

Capital Structure and Debt Coverage								
	2011	2012	2013	2014	2015	2016		
Total Equity / Total Assets	3,16%	4,34%	5,45%	12,07%	9,10%	10,01%		
Total Liabilities / Total Assets	96,84%	95,66%	94,55%	87,93%	90,90%	89,99%		
Debt / Total Assets	28,55%	30,43%	29,02%	23,47%	38,00%	31,49%		
Liabilities Structure	0,73	0,76	0,74	0,77	0,68	0,67		
Net Debt / EBITDA	1,27	1,12	1,27	1,00	2,30	1,57		
Leverage Ratio (D/E)	9,03	7,02	5,33	1,94	4,18	3,15		
Solvency Ratio	0,03	0,05	0,06	0,14	0,10	0,11		

Source: Author's calculations with company annual reports and Bloomberg data

Table 11 shows some of the ratios to analyze capital structure and debt coverage of a company<sup>8</sup>.

Beginning with the total equity to total assets ratio, a solvency ratio, we can see that the ratio jumped in 2014 to 12% and stayed at around 10% until 2016. We can interpret this ratio as the amount of assets owned by equityholders. In this case, DIA equityholders owned 10% of DIA assets in 2016; equally, it means that equity investors finance 10% of DIA assets. In case of a 6% change in the ratio from 2013 to 2014 was due to the decrease on total assets and an increase in total equity. In 2014, DIA put its French operations on sale and removed its value from the

<sup>&</sup>lt;sup>8</sup> Check annex 19 to see solvency and liquidity ratios for comparable companies.

balance sheet.

Debt as a percentage of assets remained constant at around 30% during the period. This means that debt represents 30% of DIA sales, so to pay short and long term debt, DIA would have to use 30% of its assets. In 2015, there was an increase both in short term debt and long term debt. The increase in short term debt was due to an increase in other bank loans which include a loan of €180 million to pay until 2018. The long-term debt increased due to a new revolving credit facility.

Net debt to EBITDA ratio is used to understand company solvency. A ratio that is lower than 1 is positive, because it means that the company has a higher level of EBITDA than net debt. The higher the ratio, the more leveraged the company is. In DIA's case, the ratio is always above 1. In 2016 it was 1.57x, decreasing from 2.30x in 2015 which is positive. The evolution of the ratio in 2016 was affected by the increase on cash and equivalents to €390 million.

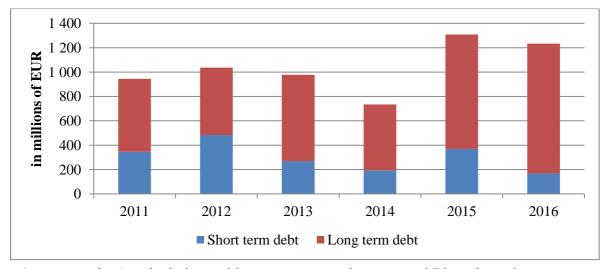


Figure 19: DIA debt structure FY2011 - FY2016

Source: Author's calculations with company annual reports and Bloomberg data

According to figure 19, DIA's debt is more long term than short term. In 2015, there was an increase in both short and long term debt but last year debt levels decreased. Mainly due to a €200 million decrease in short term debt. In 2016, short debt was 168 million and long-term debt was €1,065 million.

# 6.4 Dividend policy

Table 12: Dividend policy FY2011 - FY2016

Dividend Analysis							
In Millions of EUR	2011	2012	2013	2014	2015	2016	
Dividend Payout	388,69%	51,05%	43,17%	31,64%	36,95%	71,55%	
Retention Ration	104,33%	62,42%	64,09%	50,50%	63,23%	29,75%	
DPS	0,54 €	0,11 €	0,13 €	0,16 €	0,18 €	0,20 €	
EPS	0,14 €	0,22 €	0,30 €	0,51 €	0,49 €	0,28 €	
Price Yield	9,08%	34,39%	28,50%	-12,43%	-2,16%	-12,08%	
Total Shareholder Return	26,41%	37,55%	31,14%	-9,87%	1,08%	-8,31%	
Market Capitalization	2 308,94 €	3 177,77 €	4 116,25 €	3 563,47 €	3 344,25 €	2 903,78 €	
PER - Price Earnings Ratio (x)	24,47	21,71	21,00	10,82	11,18	16,69	
Dividend Yield	17,33%	3,16%	2,64%	2,56%	3,24%	3,77%	

Source: Author's calculations with company annual reports and Bloomberg data

Table 12 presents some data about DIA's dividend policy, which is other important aspect when analyzing a company in order to become its' shareholder.

Starting by the dividend payout ratio, this ratio expresses how much of its net income or earnings a company paid to its shareholders.

In 2016, DIA paid to shareholders 71.55% of its earnings. The average dividend payout in the last five years was 48%, which means that on average DIA paid to its shareholders half of the yearly earnings.

Having a dividend payout less than 100% is a positive aspect because it means that the company is not paying to its shareholders more than what it earned.

The retention ratio is the opposite of the dividend payout it is calculated as:

$$Retention \ ratio = 1 - Dividend \ Payout$$
 (15)

It gives the percentage of the earnings that the company retained and did not pay to shareholders in the form of dividend. Excluding 2011<sup>9</sup>, the average retention ratio is 54%. Last year, DIA retained only 29.75% of its earnings, because it paid more than it is used to.

Dividends per shares have been increasing  $\in 0.02$  since 2012, in 2016, DIA paid a dividend of  $\in 0.20$ .

<sup>&</sup>lt;sup>9</sup> We excluded 2011 because DIA shares only started to be quoted in July; therefore some ratios have no interpretation.

Price yield gives the return of an investor that bought shares in the beginning the year and sold those shares at the end of the same year, excluding dividends. In 2016, DIA shares devaluated 12%. Shares started the year trading at  $\in$ 5.31 and closed the year trading at  $\in$ 4.67. It is the third consecutive year of negative price yield. The best price yield was in 2012, when the stock closed 38% higher than the first price of the year.

Total shareholder return considers not only the price yield but also the dividends paid, in order words, how much the shareholder earned in total by owning the stock. Until 2013, the stock showed good returns of more than 25% per year but since 2014, the returns have been modest and even negative. Last year, even considering the dividend increase, the stock had a negative return of 8%.

The Price to Earnings ratio compares the company price per share with the earnings per share. It gives the amount of euros that an investor has to pay to obtain one euro of earnings. In DIA's case, in 2016, investors had to pay  $\in$ 16.69 to get  $\in$ 1 of earnings, the highest since 2014. This value is in line with the industry average that was 15.95x in 2016.

Lastly, the dividend yield of DIA has been growing since 2014 and in 2016 was 3.77%. This ratio expresses the amount of dividends a company pays comparing with the market price of its shares. So DIA offers a return of 3.77% per euro invested in its stock. Like other ratios we have analysed, this value is in line with the industry.

## 7. COMPANY VALUATION

# 7.1. Cost of Capital

The cost of capital corresponds to the minimum rate of return that an investor requires to invest in a company.

### 7.1.1. Beta

In order to estimate beta, the first stage is to understand the relation between the performance of the company share price and the evaluation of the benchmark. As Damodaran (1999) mentioned, the easiest way to calculate is using a regression of stock returns against market returns. Therefore, we calculate DIA beta using a linear regression.

To calculate the DIA stock returns, we use the weekly closing price between 2014/01/03 and 2016/12/30. As a benchmark, we use the Spanish stock index, the IBEX 35, and its weekly closing price during the same period. The sample includes 157 observations.

Our calculations determined a beta of 0.9718, meaning that DIA stock is positively correlated with the IBEX 35. The food retail sector normally has a beta between 0.9 and 1, so DIA's beta is inside this interval.

## 7.1.2. Cost of Equity

We choose to calculate the cost of equity by using the CAPM model. It is the most unanimous model utilized by the financial advisers. The inputs of the CAPM are a risk free rate, company beta, the market return and the equity risk premium.

The risk free rate we consider is the Spanish sovereign bond with maturity at 2046/10/31 which has a coupon of 2.90%.

In terms of equity risk premium, we use a value of 8.40%. This value was extracted from Damodaran calculations of market risk premium by country, as of January 2017. Applying all these inputs, it was calculated a company cost of equity of 11.06%.

## 7.1.3. Cost of Debt

To calculate the cost of debt of DIA, we consider the whole company debt and not only company bonds. We calculate the weight of the bonds in total debt and found that it represents around 75% of DIA total debt. We choose DIA bond with maturity in 2023/04/06, with an annual coupon of 0.875%. This is DIA longest bond maturity.

In addition, we calculate the average interest rate that DIA pays in the remaining debt, which is 5.20%.

With the previous inputs we calculate the cost of debt by using the following equation:

Cost of 
$$debt = (75\% \times 0.875\%) + (25\% \times 5.20\%)$$
 (16)

Therefore, DIA cost of debt is 1.97%

# 7.1.4. Capital Structure

Regarding DIA capital structure, we assume that it will remain unchanged or suffer minor changes until 2019.

The debt values considered are the long-term and short-term company debt as DIA reports in its 2016 financial reports.

The equity value used is based on market value, by multiplying the number of outstanding shares by the closing share price as of 30 of December 2016.

# 7.1.5. Weighted Average Cost of Capital (WACC)

**Table 13: WACC calculations** 

Cost of Equity (Re)	11,06%
Cost of Debt (Rd)	1,97%
Tax Rate	30,00%
D/(E+D)	29,81%
E/(E+D)	70,19%
WACC	8,18%

Source: Author's calculations

After all calculations and applying the methodology<sup>10</sup> above, the Weighted Average Cost of Capital of DIA is 8.18%.

## 7.2. Discounted Cash Flow Model

As mentioned before, DIA is evaluated firstly with the use of a discounted cash flow model, which consists in discounting the expected future free cash flows to the present, by using the WACC.

Free cash flow is the amount of cash that flows into a corporation after subtracting all cash

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<sup>&</sup>lt;sup>10</sup> The tax rate we considered is the Spanish average effective tax rate since 2011.

expenses. Indeed, it means the actual cash that a company has left from its operations and may be used to look for opportunities with the view to increase shareholder value.

We choose this model because we consider it is the most complex and the one that gives more information about the estimated performance of the company. Additionally, it is widely used by equity research analysts, when evaluating companies of the food retail sector.

The forecast period is 2017, 2018 and 2019, in a total of three years.

### 7.2.1. Revenue forecast

We make our revenue forecast considering a sum of parts approach. Therefore, the revenue of each geographic region is forecasted separately, by analyzing the trends in each of the company main markets as shown in the table 14 below.

Table 14: Estimated sales by geography 2016 – 2019E

Est	Estimated Sales by Geography								
In Millions of EUR	2016	<b>2017E</b>	2018E	<b>2019E</b>					
Spain	5 064,02 €	5 173,91 €	5 274,43 €	5 372,70 €					
% change YoY		2,17%	1,94%	1,86%					
Portugal	681,93 €	689,33 €	697,33 €	705,42 €					
% change YoY		1,09%	1,16%	1,16%					
IBERIA	5 745,95 €	5 863,24 €	5 971,76 €	6 078,11 €					
% change YoY		2,04%	1,85%	1,78%					
Brazil	1 611,87 €	1 807,88 €	2 027,71 €	2 274,28 €					
% change YoY		12,16%	12,16%	12,16%					
Argentina	1 310,88 €	1 425,19 €	1 549,47 €	1 684,58 €					
% change YoY		8,72%	8,72%	8,72%					
China	198,86 €	- €	- €	- €					
EMERGING MARKETS	3 121,62 €	3 233,07 €	3 577,18 €	3 958,86 €					
% change YoY		3,57%	10,64%	10,67%					
TOTAL	8 867,57 €	9 096,30 €	9 548,94 €	10 036,98 €					

Source: Author's calculations

We forecasted sales in Spain, Portugal, Argentina and Brazil individually and, in the end, we sum up these values to calculate DIA consolidated sales between 2017E and 2019E.

Iberia is DIA consolidated market; therefore, growth rates are not expected to be high. The growth will be related with improvements on macroeconomic indicators as GDP and consumer spending, and also improvements in market share.

In our forecast, we link Iberia sales growth to the GDP growth<sup>11</sup> of both Spain and Portugal. GDP is often used to predict sales in this sector because its performance is closely linked with the performance of the whole economy as explained at chapter 4.

We believe that sales growth in Spain until 2019 will come from three different areas: store improvements, which proved its success on increasing sales in Portugal; the expansion of online sales and the partnership with Amazon which combines two big companies that can take advantage of being the first exploiting this new market; and further consolidation of the Spanish food retail market, which would allow same gain in market share.

Regarding the Emerging Markets, we consider them with high growth potential, has we have seen in the previous years.

Starting with Brazil, the average of new openings since 2014 is 128 stores per year, which implies a rate of expansion of 12.16% per year. Considering recent developments and historical growth, we believe that DIA will be able to maintain this rate of expansion until 2019.

In the case of Argentina, the average rate of expansion of new stores is 8.72% or 76 new stores per year. Since 2011, DIA has been able to maintain this rate of expansion and it is expected to continue this growth. We estimate sales in Argentina considering this rate of expansion until 2019.

China was excluded from our estimates, since recent news point that DIA will exit its Chinese operations and, in 2017, will treat them as discontinued operations.

## 7.2.2. Steady State growth

Steady state growth is calculated also by sum-of-parts, considering each country in which the company is present. We use the average GDP growth forecasts<sup>12</sup> in each country between 2020 and 2021, and the weight on sales of each one in 2019, according with our forecasts.

Steady state growth = 
$$\sum (w_{country} \times GDP \ growth_{country})$$
 (16)

Our formula returned a steady state growth rate of 2%, which is in line with both estimates of the company and of several analysts.

<sup>&</sup>lt;sup>11</sup> According to IMF global economic outlook October 2016.

<sup>&</sup>lt;sup>12</sup> According to IMF global economic outlook October 2016.

## 7.2.3. Gross Profit margin forecast

We assume that the gross profit margin would maintain its growth trend. We calculate an average growth rate since 2013 of 1.69% and consider it would remain until 2019. To calculate the absolute value of gross profit, we multiply the forecasted gross profit margin by the forecasted sales of each year.

Table 15: Gross Profit estimates 2016 - 2019E

In Millions of EUR	2016	2017E	2018E	2019E
Gross Profit	2 036,59 €	2 124,42 €	2 267,82 €	2 424,01 €
% change YoY		4,31%	6,75%	6,89%
Gross Profit Margin	22,97%	23,35%	23,75%	24,15%
% change YoY		1,69%	1,69%	1,69%

Source: Author's calculations

# 7.2.4. EBITDA margin forecast

The average EBITDA margin in the last three years is 6.08%. Since this margin was 5.88% in 2016, and we believe that it will grow towards historical levels, we assume that the margin in 2017 will be 6.08%. This represents a growth of 3.35% of the margin.

In order to estimate the remaining years we consider that this growth in the margin would be constant, 3.35% every year.

Table 16: EBITDA estimates 2016 - 2019E

In Millions of EUR	2016	2017E	2018E	<b>2019E</b>
EBITDA	528,01 €	552,85 €	599,81 €	651,58 €
% change YoY		4,70%	8,49%	8,63%
EBITDA margin	5,88%	6,08%	6,28%	6,49%
% change YoY		3,35%	3,35%	3,35%

Source: Author's calculations

### 7.2.5. EBIT forecast

To forecast the EBIT, we start by looking at the recent trend of depreciations and amortizations. In the last 3 years, D&A has been in the range of 2.27%/2.78% of total revenue, averaging at 2.41%. We assume that the average would remain constant until 2019.

Table 17: D&A and EBIT estimates 2016 - 2019E

In Millions of EUR	2016	2017E	2018E	2019E
D&A	232,95 €	219,22 €	230,13 €	241,89 €
% change YoY	2,59%	2,41%	2,41%	2,41%
EBIT	295,06 €	333,63 €	369,68 €	409,69 €
% change YoY		13,07%	10,80%	10,82%
EBIT Margin	3,29%	3,67%	3,87%	4,08%

Source: Author's calculations

## **7.2.6.** Tax rate

Historically, DIA tax rate is around 30%. Therefore, it is plausible to assume that it will continue around this value during the forecasted period.

#### 7.2.7. Fixed Assets

Considering the estimates of the evolution of fixed assets, we calculate the percentage of fixed assets by total revenue, excluding intangible assets. Between 2011 and 2016, the average fixed assets per total revenue is 17.33%. We assume that the ratio would remain at 17.33% until 2019.

#### 7.2.8. Recommendation

Considering the previous assumptions and calculations, our DIA estimated terminal value is  $\in 4,012$  million and its estimated enterprise value is  $\in 4,564$  million<sup>13</sup>.

DIA estimated equity value is  $\[ \in \] 3,721.66$  million or  $\[ \in \] 5.98$  per share, which corresponds to an upside potential of 28.17% per share or 1.316 per share, comparing with the 2016 closing price (4.676). Therefore, our recommendation is BUY, with a price target of  $\[ \in \] 5.98$ .

As shown on annex 28, our price target calculations and investment recommendation is in line with other analysts.

## 8. SENSITIVITY ANALYSIS

As we know, all the projections have certain risks associated and for that reason is crucial to analyze different scenarios and understand its effects.

We present three distinctive scenarios: a constant zero growth case, a bear case and a bull case.

<sup>&</sup>lt;sup>13</sup> See annex 23 which contains the full calculations.

<sup>&</sup>lt;sup>14</sup> See annex 22 which contains our recommendation criteria

The main goal of sensitive analysis is to determine the effect on our price target of one specific variable oscillation, whilst maintaining the others inalterable. We consider the same WACC in every case, because it is not expected to have great fluctuations during the period or to change with our assumptions.

## 8.1. Constant zero growth

In this scenario, it is considered that the sales growth rate will be zero, in other words, the results of 2016 are kept throughout the entire estimated period and the company has a steady state growth of 0%.

As shown in annex 24, there are no changes on any variable of financial statement, so sales, fixed assets, and working capital needs will have the same values, resulting in a constant FCFF until 2019.

**Table 18: Constant zero growth calculations** 

Terminal Value	2 525,94 €
Present value of terminal value	2 158,51 €
Enterprise value	2 525,94 €
Non operating assets	390,60 €
Firm value	2 916,54 €
Current outstanding debt	1 233,40 €
Equity value	1 683,14 €
Total shares outstanding	622,46
Fair price per share in EUR	2,70 €

Source: Author's calculations

If sales remain constant forever, DIA terminal value would be €2,525.94 million, which would be equal to the enterprise value because growth is zero.

The equity value will be  $\in 1,683.14$  and the price target per share would be  $\in 2.70$ , as of 30/12/2017. This value implies a downside potential of 42% and our recommendation would be SELL.

#### 8.2. Bear case

In the bear case, we consider that sales will grow 2% less than our base case; e.g. in our base case we consider that, in 2017, sales growth of 1.31%, therefore, in the bear case sales growth

-0.69%.

Regarding the steady state growth rate, instead of a change of 2% used in the 2017 to 2019 period we consider a growth of 1%. We believe that, even in the worst case, it is not realistic to think that DIA is going to grow 0% or less, in the long term due to all the economic forecasts and industry analysis we had access. Therefore, in our bear case we assume a steady state growth of 1%.

Using a change of 1% in steady state growth is an assumption we make. This level of change is enough to understand the positive and negative impacts on our valuation.

Table 19: Bear case estimates 2016 - 2019E

FCFF Analysis considering Lowest Estimates						
In Millions of EUR	2016	<b>2017E</b>	2018E	<b>2019E</b>		
Total Sales	8 978,60 €	8 916,73 €	9 182,10 €	9 467,74 €		
% change YoY	0,00%	-0,69%	2,98%	3,11%		
Gross Profit	2 036,59 €	2 082,48 €	2 180,70 €	2 286,53 €		
% change YoY	0,00%	2,25%	4,72%	4,85%		
Gross Profit Margin	22,97%	23,35%	23,75%	24,15%		
EBITDA	528,01 €	541,94 €	576,76 €	614,63 €		
% change YoY	0,00%	2,64%	6,43%	6,57%		
EBITDA Margin	5,88%	6,08%	6,28%	6,49%		
EBIT	295,06 €	327,05 €	355,48 €	386,46 €		
% change YoY	0,00%	10,84%	8,69%	8,72%		
EBIT Margin	3,29%	3,67%	3,87%	4,08%		

Source: Author's calculations

Our estimates point<sup>15</sup> to a sales decrease in 2017, achieving  $\in 8,916.73$ ; but a gradual increase until  $\in 9,467.74$  in 2019.

Between 2017E and 2019E, EBITDA margin will remain in the 6% to 6.50% range, which is the historical level. Additionally, we estimate that EBIT margin will achieve 2014 levels only in 2019.

In this scenario<sup>16</sup>, we estimate a terminal value of  $\in 3,446$  million and an enterprise value of  $\in 4,135$  million.

Our bear case price target is €5.29 per share, which gives an upside potential of 13% or 0.62€

<sup>&</sup>lt;sup>15</sup> See annex 25.

<sup>&</sup>lt;sup>16</sup> See annex 25.

per share, comparing with the 2016 closing price. Our recommendation is HOLD.

### 8.3. Bull case

Our bull case considers better than expected sales growth. This scenario implies a sales growth 2% higher than in our base case and a steady state growth of 3%.

In terms of the steady state growth, we assume a 1% change upwards. In this case, steady state growth will be 1% more than the one we use in the base case.

Table 20: Bull case estimates 2016 - 2019E

FCFF Analysis considering Highest Estimates							
In Millions of EUR	2016 2017E		2018E	2019E			
Total Sales	8 978,60 €	9 275,87 €	9 922,97 €	10 628,58 €			
% change YoY	0,00%	3,31%	6,98%	7,11%			
Gross Profit	2 036,59 €	2 166,35 €	2 356,65 €	2 566,88 €			
% change YoY	0,00%	6,37%	8,78%	8,92%			
Gross Profit Margin	22,97%	23,35%	23,75%	24,15%			
EBITDA	528,01 €	563,77 €	623,30 €	689,99 €			
% change YoY	0,00%	6,77%	10,56%	10,70%			
EBITDA margin	5,88%	6,08%	6,28%	6,49%			
EBIT	295,06 €	340,22 €	384,16 €	433,84 €			
% change YoY	0,00%	15,31%	12,91%	12,93%			
EBIT Margin	3,29%	3,67%	3,87%	4,08%			

Source: Author's calculations

In the best scenario<sup>17</sup>, sales will increase 3.31% in 2017, to  $\[ \in \]$ 9,275.87 million and 7.11% in 2019E, to  $\[ \in \]$ 10,628.58 million. The gross profit will also increase, during the forecasted period, to  $\[ \in \]$ 2,566.88 million in 2019E.

In 2019E, EBITDA will reach €689.99 million. Likewise, EBIT will increase over these three years, in 2017E is expected to reach €340.22 million and in 2019E achieve €433.84 million.

Considering these results, the firms terminal value is  $\in 4,781$  million and the enterprise value is  $\in 5,153$  million. The price target is  $\in 6.92$ , which represents an upside potencial of 48% and our recommendation is BUY.

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<sup>&</sup>lt;sup>17</sup> See annex 26.

### 9. MARKET MULTIPLES METHOD

Relative valuation is often used in the financial industry to quickly value a company and also to validate the results obtained using the DCF method.

Create a group of fully comparable peers is a fundamental step when using multiples, because different industries show different ratios and the more similar the peer group is, the more accurate the conclusions can be. Also, companies with very different profiles can result in very different multiples results and compromise valuation.

Therefore, we chose to take part in this peer group the companies describe at chapter 5. This group of companies, as already mentioned, has a very similar profile by being European food retail multinational companies that quote in the most important European indices. We opted to exclude Tesco Plc in the calculation of the average P/E ratio because its 2016 earnings were close to zero; therefore the P/E ratio cannot be interpreted.

Table 21: Equity multiples FY 2016

Equity Multiples (Full Year 2016)						
(in Millions of EUR expect	P/BV	P/E	P/S	EPS	<b>EBITDA</b>	Dividend
per share)	ratio	ratio	ratio	LIS	Margin	Yield
DIA	7,27x	16,66x	0,32x	0,28 €	5,88%	3,59%
Jerónimo Martins	5,33x	15,61x	0,63x	0,94 €	5,68%	1,87%
Carrefour	1,66x	21,59x	0,21x	1,01€	4,48%	2,98%
Tesco	2,41x	234,57x	0,28x	0,016€	4,37%	0,00%
Metro	1,63x	15,77x	0,15x	1,83 €	4,16%	3,69%
Casino Guichard Perrachon	0,71x	10,81x	0,14x	4,22 €	2,98%	6,79%
<b>Industry Average</b>	3,17x	16,09x	0,29x	1,38 €	4,59%	3,15%

Source: Bloomberg and Financial Times

In terms of Price to Book Value ratio, DIA is trading at 7.27x its book value. As we can see in table 21, DIA has the highest value and it is above the average P/BV of its competitors. This indicates that the company is overvalued.

The average P/E ratio is 16.09x. Although DIA ratio is slightly higher than the sector average, we can consider that it is in line with the sector. This means that DIA stock is slightly more expensive than industry peers. We can interpret this ratio as an indication that the stock is being priced by the market in line with the sector.

Looking at the P/S ratio, we can conclude that it is slightly overvalued comparing with industry

peers. Yet ratios are very similar, meaning that there is no clear indication of the stock being over or undervalued. DIA shares trade at 0.32x P/S ratio, when the sector peers trade at 0.29x.

The industry average EBITDA margin is around 5%, while DIA has the highest value of 5.88%, which is telling that DIA is has higher operating profit.

DIA's dividend yield is in line with the average of its peers, so the company is equally attractive than its competitors, with regard to dividend.

We can conclude that the equity multiples, excluding the P/BV, express that DIA is trading in line with its peers.

Table 22: Enterprise multiples FY2016

Enterprise Multiples						
	Enterprise Value (in millions of EUR)	EV / EBITDA	EV / EBIT	EV / Sales		
DIA	3 746,50 €	7,10x	12,7x	0,48x		
Jerónimo Martins	9 224,20 €	11,11x	17,22x	0,69x		
Carrefour	23 472,20 €	6,66x	11,86x	0,29x		
Tesco	27 836,80 € <sup>18</sup>	9,11x	25,97x	0,52x		
Metro	11 042,30 €	4,55x	7,83x	0,20x		
Casino Guichard Perrachon	16 828,40 €	15,70x	41,15x	0,57x		
Mean	15 358,40 €	9,04x	19,45x	0,46x		

Source: Bloomberg and Financial Times

Regarding the enterprise multiples, we can see in table 22, that the company enterprise value is well below the industry average.

Enterprise value to EBITDA is 7.10x, meaning that it is lower than industry average of 9.04x, therefore, the company is undervalued. The same can be concluded with the 12.7x EV/EBIT of DIA, when the industry average is 19.45x.

On the contrary, the EV/Sales ratio of DIA is above the mean of its peers, therefore indicates that the company is slightly overvalued compared with the sector.

<sup>18</sup> We opted to present Tesco enterprise value in EUR instead of GBP in order to be fully comparable with its peers. The value was extracted from Bloomberg as of 19 July 2017.

The enterprise value multiples are consistent we our DCF valuation. The EV/EBITDA and the EV/EBIT of DIA show that the company is undervalued and the EV/Sales ratio, despite being above the average, is not too far from the industry values.

## 10. CONCLUSION

The present report describes the retail food industry and evaluates Distribuidora Internacional de Alimentación. We use the company fundamentals to forecast its performance between 2017 and 2019. The results of these calculations are a price target and an investment recommendation based on the comparison between the current share market price and our price target.

This project contributions are a comprehensive analysis of the European food retail sector along with the evaluation of one of the biggest European companies in this industry.

The European food retail industry is characterized by its numerous attempts to find new ways to grow its sales and margins.

In Europe, the food retail sector, in addition to its function of connecting producers and consumers, has the very important role of allowing the better disposal of agricultural products, food processing and non-food products across Member States.

European consumers are characterized by giving more importance to price, packaging and healthy products. Therefore, retailers adjusted their strategies to aim these three points.

Industry trends show that price is the center of most industry trends. The development of private labels, the creation of buying groups, the expansion of discount stores, the evolution of e-commerce and the creation of loyalty programs are focused on reducing prices to consumers. In addition, the expansion of modern retail, in order to increase its sales, has decreased the number of traditional retailers that cannot compete in prices and made retailers look to other geographic regions.

DIA is a Spanish company that focuses on the food retail sector. The company is known by its low prices. It is present in five countries, Spain, Portugal, Brazil, Argentina and China. Of the €8,978 million in sales, 57.11% comes from its home country, followed by 18.18% in Brazil and 14.78% in Argentina.

The company offers a wide variety of store brands that have different features according to the target consumer and the geographic region in which they are integrated. It also has a range of own labels that include, gourmet products, personal hygiene, cosmetic products, babies products and pet products.

Using the discounted cash flow, our estimates show sales CAGR of 3.78% between 2016 and 2019. We believe that DIA will be able to achieve €10,036 million in 2019, due to the expansion in Brazil and Argentina, the increase of online sales and the finishing of the renewal of stores in Spain. Additionally, we see an improvement in macroeconomic environment both in Europe and South America that will benefit sales.

EBITDA margin will gradually return to historical levels and achieve 6.49% in 2019. The same will happen with EBIT margin, which will be around 4% in 2019. Higher margins will be a consequence of higher sales and lower COGS, due to partnerships that improve the company bargaining power and offer economies of scale.

Valuation by multiples confirms our DCF estimates. Although, in some cases, the equity multiples show some overvaluation in the stock and in other cases show that the company is in line with the industry, the enterprise multiples illustrate that the company is undervalued. DIA trades at 7.27x P/BV, 16.66x P/E and 0.32x P/S. In terms of enterprise multiples, DIA trades at 7.10x EV/EBITDA, 12.7x EV/EBIT and 0.48x EV/Sales.

The project faced some limitations. Some of the industry data available is outdated, the limited access to the store dimensions of some DIA banners and the lack of corporate finance knowledge made us invest more time understanding the best valuations methods and the different financial statement ratios. Additionally, our project includes a comprehensive excel analysis and several assumptions, which made difficult to update with the arrival of new information.

As a suggestion to future food retail company analysis, include using a store square meters forecast model and an in-depth analysis of DIA competitors in the Spanish market.

Concluding, our price target for DIA shares is €5.98, which implies an upside of 28.17% comparing with the stock closing price at 30/12/2016. Therefore, our recommendation is to BUY DIA shares.

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## **ANNEXES**

# Annex 1 – DIA Income Statement 2011 - 2016

	Income	Statement				
In Millions of EUR except Per Share	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Sales	9 728,54 €	9 707,554 €	7 945,58 €	8 010,97 €	8 925,45 €	8 867,62 €
% change YOY	0,57%	-0,22%	-18,15%	0,82%	11,42%	-0,65%
Other Income	114,95 €	131,793 €	94,26 €	105,25 €	96,22 €	110,98 €
Total Revenue	9 843,50 €	9 839,35 €	8 039,84 €	8 116,22 €	9 021,67 €	8 978,60 €
% change YOY	1,76%	-0,04%	-18,29%	0,95%	11,16%	-0,48%
Cost of Goods Sold	7 752,53 €	7 754,44 €	6 312,37 €	6 350,65 €	7 018,88 €	6 942,01 €
Gross Profit	2 090,96 €	2 084,90 €	1 727,47 €	1 765,56 €	2 002,79 €	2 036,59 €
% change YOY	3,48%	-0,29%	-17,14%	2,21%	13,44%	1,69%
Gross Profit margin	21,49%	21,48%	21,74%	22,04%	22,44%	22,97%
% change YOY	2,89%	-0,07%	1,23%	1,37%	1,81%	2,35%
(-) Fixed Costs	1 596,77 €	1 507,83 €	1 184,48 €	1 257,05 €	1 514,62 €	1 508,58 €
Personnel Costs	803,687 €	781,545 €	628,497 €	704,940 €	847,233 €	846,10 €
Operating Costs	779,770 €	708,094 €	549,847 €	535,029 €	644,034 €	653,55 €
Other Costs	13,317 €	18,187 €	6,135 €	17,083 €	23,353 €	8,93 €
EBITDA	494,19 €	577,08 €	542,99 €	508,51 €	488,17 €	528,01 €
EBITDA margin	5,02%	5,86%	6,75%	6,27%	5,41%	5,88%
% change YOY	-17,27%	16,82%	15,15%	-7,23%	-13,64%	8,68%
Depreciation and Amortization	277,39 €	268,94 €	188,95 €	184,60 €	214,03 €	232,95 €
% change YOY	2,82%	2,73%	2,35%	2,27%	2,37%	2,59%
EBIT	216,80 €	308,14 €	354,04 €	323,91 €	274,14 €	295,06 €
EBIT margin	2,20%	3,13%	4,40%	3,99%	3,04%	3,29%
Interest Income	8,61 €	26,21 €	13,31 €	16,45 €	9,27 €	12,09 €
(-) Interest Expenses	44,01 €	52,05 €	46,21 €	57,26 €	65,29 €	64,12 €
Profit/Loss of financial instruments	0,87 €	0,99 €	- €	0,10 €	- €	0,09 €
EBT	182,279 €	283,281 €	321,138 €	283,198 €	218,116 €	243,120 €
EBT margin	1,87%	2,92%	4,04%	3,54%	2,44%	2,74%
Income Tax Expense (Benefit)	83,45 €	101,84 €	100,81 €	74,56 €		69,12 €
Profit after tax from continuing operations	98,830 €	181,442 €	220,327 €	208,642 €	,	174,001 €
Gains/Losses net of taxes of discontinued operations	-4,456		-24,269	120,582		- €
Net Income	94,374 €	146,386 €	196,058 €	329,224 €	299,249 €	174,001 €
Profit Margin	0,97%	1,51%	2,47%	4,11%	3,35%	1,96%

**Annex 2 – Additional information 2011 – 2016** 

	Other Information											
	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016						
Dividends Per Share	0,54 €	0,11 €	0,13 €	0,16 €	0,18 €	0,20 €						
Shares Outstanding	679,30	679,30	651,10	651,10	614,30	622,46						
Dividends Paid	368,60 €	72,50 €	83,90 €	103,30 €	112,60 €	122,20						
Price BOY (EUR per share)	3,12 €	3,48 €	4,92 €	6,25 €	5,56 €	5,31 €						
Price EOY (EUR per share)	3,40 €	4,68 €	6,32 €	5,47 €	5,44 €	4,67 €						
Market Capitalization (in millions of EUR)	2 374,30 €	3 267,60 €	4 232,00 €	3 663,60 €	3 388,70 €	2 903,80 €						
EPS	0,14 €	0,22 €	0,30 €	0,51 €	0,49 €	0,28 €						
Tax rate	30%	30%	30%	30%	30%	30%						

Annex 3 – DIA Balance Sheet 2011 – 2016

	Bal	ance Sheet				
In Millions of EUR except Per Share	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
		Assets				
+ Cash, Cash Equivalents & Short Term Investments	314,29 €	386,51 €	278,45 €	217,51 €	176,89 €	390,60 €
+ Cash & Cash Equivalents	289,94 €	350,43 €	262,04 €	199,00 €	154,63 €	364,60 €
+ Short Term Investments	24,35 €	36,09 €	16,41 €	18,51 €	22,27 €	26,00 €
+ Accounts & Notes Receivable	191,25 €	179,56 €	209,66 €	244,59 €	221,19 €	260,90 €
+ Accounts Receivable, Net	191,25 €	179,56 €	209,66 €	244,59 €	221,19 €	260,90 €
+ Notes Receivable, Net	- €	- €	- €	- €	- €	- €
+ Inventories	521,93 €	527,07 €	544,87 €	553,12 €	562,49 €	669,60 €
+ Raw Materials	- €	- €	- €	- €	- €	- €
+ Work In Process	- €	- €	- €	- €	- €	- €
+ Finished Goods	518,39 €	525,36 €	543,34 €	545,71 €	554,28 €	662,60 €
+ Other Inventory	3,53 €	1,71 €	1,53 €	7,41 €	8,21 €	7,00 €
+ Other Short Term Assets	75,81 €	109,39 €	97,86 €	114,79 €	126,95 €	88,10 €
+ Prepaid Expenses	14,10 €	15,30 €	14,11 €	7,84 €	7,82 €	8,10 €
+ Derivative & Hedging Assets	- €	- €	- €	- €	- €	- €
+ Assets Held-for-Sale	- €	13,88 €	6,10 €	0,01 €	- €	- €
+ Taxes Receivable	61,71 €	80,22 €	77,65 €	106,94 €	119,14€	79,90 €
+ Misc ST Assets	- €	- €	- €	- €	- €	- €
Total Current Assets	1 103,27 €	1 202,53 €	1 130,84 €	1 130,01 €	1 087,53 €	1 409,10 €
% change YoY	0,78%	-8,25%	6,34%	0,07%	3,91%	-23%
+ Property, Plant & Equip, Net	1 625,96 €	1 618,63 €	1 601,65 €	1 270,36 €	1 372,01 €	1 469,10 €
+ Property, Plant & Equip	3 260,94 €	3 329,73 €	3 464,63 €	2 801,44 €	3 018,40 €	3 391,90 €
- Accumulated Depreciation	1 634,98 €	1 711,10 €	1 862,98 €	1 531,08 €	1 646,39 €	1 922,90 €
+ Long Term Investments & Receivables	42,80 €	43,49 €	39,11 €	43,39 €	67,20 €	108,00 €
+ Long Term Investments	23,53 €	21,49 €	14,37 €	14,40 €	15,91 €	38,60 €
+ Long Term Receivables	19,27 €	22,00 €	24,74 €	29,00 €	51,29 €	69,30 €
+ Other Long Term Assets	537,55 €	540,00 €	598,99 €	683,23 €	915,89 €	930,20 €
+ Total Intangible Assets	460,92 €	461,34 €	500,00 €	497,21 €	592,83 €	595,30 €
+ Goodwill	416,54 €	422,97 €	454,39 €	464,64 €	558,06 €	557,80 €
+ Other Intangible Assets	44,38 €	38,38 €	45,61 €	32,57 €	34,76 €	37,50 €
+ Deferred Tax Assets	58,19 €	54,55 €	57,67 €	147,89 €	271,48 €	314,30 €
+ Derivative & Hedging Assets	0,24 €	17,26 €	0,39 €	0,07 €	8,20 €	0,10 €
+ Investments in Affiliates	1,60 €	1,30 €	0,79 €	- €	0,09 €	0,20 €
+ Misc LT Assets	16,60 €	5,54 €	40,15 €	38,06 €	43,29 €	20,30 €
Total Noncurrent Assets	2 206,31 €	2 202,12 €	2 239,75 €	1 996,98 €	2 355,10 €	2 507,30 €
% change YoY	-2,94%	0,19%	-1,68%	12,16%	-15,21%	-6%
Total Assets	3 309,58 €	3 404,64 €	3 370,59 €	3 126,99 €	3 442,63 €	3 916,30 €
% change YoY	-1,70%	-2,79%	1,01%	7,79%	-9,17%	-12%

		Liabilities	S			
In Millions of EUR except Per Share	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
+ Payables & Accruals	1 992,90 €	1 968,99 €	2 030,20 €	1 917,91 €	1 757,86 €	2 181,00 €
+ Accounts Payable	1 625,89 €	1 586,58 €	1 608,16 €	1 551,27 €	1 376,94 €	1 754,40 €
+ Accrued Taxes	124,16 €	125,67 €	160,54 €	91,19 €	97,05 €	101,00 €
+ Other Payables & Accruals	242,85 €	256,74 €	261,50 €	275,45 €	283,87 €	325,60 €
+ Short Term Debt	345,14 €	483,01 €	269,07 €	193,79 €	369,48 €	168,30 €
+ ST Borrowings	344,57 €	479,91 €	260,59 €	187,87 €	361,74 €	156,70 €
+ ST Capital Leases	0,58 €	3,11 €	8,48 €	5,91 €	7,74 €	11,60 €
+ Other Short Term Liabilities	12,68 €	35,73 €	48,22 €	8,81 €	8,51 €	20,00 €
+ Misc ST Liabilities	12,68 €	34,79 €	46,84 €	7,96 €	8,47 €	13,40 €
Total Current Liabilities	2 350,72 €	2 487,73 €	2 347,49 €	2 120,50 €	2 135,85 €	2 369,20 €
% change YoY	-9,87%	5,83%	-5,64%	-9,67%	0,72%	10,93%
+ Long Term Debt	599,66 €	553,11 €	708,92 €	540,07 €	938,86 €	1 065,10 €
+ LT Borrowings	599,49 €	531,59 €	681,06 €	527,18 €	919,67 €	1 033,80 €
+ LT Capital Leases	0,17 €	21,52 €	27,86 €	12,89 €	19,19€	31,30 €
+ Other Long Term Liabilities	254,59 €	216,14€	130,55 €	88,85 €	54,70 €	90,00 €
+ Deferred Tax Liabilities	85,61 €	115,51 €	57,98 €	2,75 €	3,19 €	44,10 €
+ Misc LT Liabilities	168,98 €	100,63 €	72,57 €	86,10 €	51,50 €	45,80 €
Total Noncurrent Liabilities	854,25 €	769,25 €	839,47 €	628,92 €	993,55 €	1 155,00 €
Total Liabilities	3 204,97 €	3 256,98 €	3 186,95 €	2 749,42 €	3 129,40 €	3 524,20 €

		Skareholder's	Equity			
In Millions of EUR except Per Share	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
+ Preferred Equity	- €	- €	- €	- €	- €	- €
+ Share Capital & APIC	686,09 €	686,09 €	683,26 €	683,26 €	62,25 €	62,20 €
+ Common Stock	67,93 €	67,93 €	65,11 €	65,11 €	62,25 €	- €
+ Additional Paid in Capital	618,16€	618,16€	618,16€	618,16€	- €	- €
- Treasury Stock	37,07 €	53,09 €	10,51 €	36,04 €	53,56 €	66,60 €
+ Retained Earnings	98,46 €	157,88 €	209,26 €	329,23 €	299,22 €	174,00 €
+ Other Equity	- 648,72 € -	- 638,79€ -	- 698,38 € -	598,84 €	5,34 €	222,40 €
Equity Before Minority Interest	98,77 €	152,10 €	183,64 €	377,62 €	313,24 €	392,20 €
+ Minority/Non Controlling Interest	5,84 €	- 4,44 €	- € -	- 0,05 € -	0,02 € -	0,10 €
Total Equity	104,62 €	147,66 €	183,64 €	377,57 €	313,23 €	392,10 €
Total Liabilities & Equity	3 309,58 €	3 404,64 €	3 370,59 €	3 126,99 €	3 442,63 €	3 916,30 €

Annex 4 – DIA Cash Flow Statement 2011 – 2016

		Cas	h ]	Flow State	me	nt					
In Millions of EUR except Per Share		FY 2011		FY 2012		FY 2013		FY 2014		FY 2015	FY 2016
·		Cash fro	m	Operating	Ac	tivities					
+ Net Income		98,46 €		157,88 €		209,26 €		329,23 €		299,22 €	174,00 €
+ Depreciation & Amortization		277,39 €		268,94 €		188,95 €		184,60 €		214,03 €	233,00 €
+ Non-Cash Items	-	2,73 €		14,05 €		50,89 €		76,82 €	-	161,88 €	66,70 €
+ Other Non-Cash Adj	-	2,73 €		14,05 €		50,89 €		76,82 €	-	161,88 €	66,70 €
+ Chg in Non-Cash Work Cap		65,68 €	-	7,34 €		22,65 €	-	187,29 €	-	156,96 €	289,80 €
+ (Inc) Dec in Inventories		20,11 €	-	4,74 €	-	22,74 €	-	66,70€	-	9,37 € -	107,10€
+ Inc (Dec) in Other		45,57 €	-	2,60 €		45,39 €	-	120,59 €	-	147,59 €	396,90 €
+ Net Cash From Disc Ops	-	4,46 €	-	35,06 €	-	40,64 €	-	59,13 €	-	1,48 €	- €
Cash from Operating Activities		434,34 €		398,48 €		431,11 €		344,24 €		192,92 €	763,50 €
		Cash fro	om	Investing	Ac	tivities					
+ Change in Fixed & Intang	-	335,54 €	-	327,50 €	-	351,86 €	-	343,54 €	-	555,49 € -	299,80 €
+ Disp in Fixed & Intang		14,36 €		3,59 €		1,84 €		0,66€		2,85 €	38,50 €
+ Disp of Fixed Prod Assets		10,78 €		3,51 €		1,84 €		0,66 €		2,85 €	38,50 €
+ Disp of Intangible Assets		3,59 €		0,08 €		- €		- €		- €	- €
+ Acq of Fixed & Intang	-	349,90 €	-	331,09 €	-	353,70 €	-	344,20 €	-	558,34 € -	338,30 €
+ Acq of Fixed Prod Assets	-	334,19 €	-	321,52 €	-	348,94 €	-	341,87 €	-	455,12 € -	332,80 €
+ Acq of Intangible Assets	-	15,71 €	-	9,57 €	-	4,76 €	-	2,32 €	-	103,22 € -	5,50 €
+ Net Change in LT Investment		26,68 €	-	14,72 €		37,11 €		259,93 €	-	14,01 € -	33,10 €
+ Dec in LT Investment		33,03 €		- €		45,78 €		285,91 €		15,22 €	- €
+ Inc in LT Investment	-	6,35 €	-	14,72 €	-	8,67 €	-	25,99 €	-	29,23 € -	33,10 €
+ Net Cash From Acq & Div	-	38,62 €	-	1,25 €	-	51,56 €	-	177,77 €		- €	- €
+ Cash from Divestitures		- €		- €		4,55 €	-	184,23 €		- €	- €
+ Cash for Acq of Subs	-	38,62 €	-	1,25 €	-	56,11 €		6,46 €		- €	- €
+ Other Investing Activities	-	3,75 €	-	29,14€		2,94 €		14,12 €		13,27 € -	7,20 €
+ Net Cash From Disc Ops		- €		- €		2,38 €		0,24 €		- €	- €
Cash from Investing Activities	-	351,23 €	-	372,61 €	-	360,99 €	-	247,02 €	-	556,23 € -	340,10 €
		Cash fro	m	Financing	Ac	tivities					
+ Dividends Paid	-	368,60 €	-	72,50 €	-	83,87 €	-	103,28 €	-	112,61 € -	122,20 €
+ Cash From (Repayment) Debt		287,60 €		51,24€	-	22,61 €	-	13,60 €		545,30 € -	66,90 €
+ Cash (Repurchase) of Equity	-	39,40 €	-	23,97 €	-	45,75 €	-	37,17 €	-	200,06 € -	19,90 €
+ Increase in Capital Stock		- €		- €		- €		- €		- €	- €
+ Decrease in Capital Stock	-	39,40 €	-	23,97€	-	45,75 €	-	37,17 €	-	200,06 € -	19,90 €
+ Other Financing Activities	-	9,54 €		6,04 €		- €		- €		- €	- €
+ Net Cash From Disc Ops		- €		54,16 €	-	11,15 €	-	13,88 €		- €	- €
Cash from Financing Activities	-	129,94 €		14,97 €	-	163,37 €	-	167,94 €		232,63 € -	209,00 €

Annex 5 – Sales by geography and number of stores

In Millions of except Per S		201	1	201	12	201	13	2014		2015		201	6	CAGR (2011 - 2016)
TOTAL REVE	NUE	6 959,60 €	100,00%	7 568,01 €	100,00%	7 945,58 €	100,00%	8 010,97 €	100,00%	8 925,45 €	100,00%	8 867,56 €	100,00%	4,96%
Iberia	% yoy	4 947,10 €	71,08%	5 117,53 € 3,45%	67,62%	5 283,70 € 3,25%	66,50%	5 221,56 € -1,18%	65,18%	5 754,67 € 10,21%	64,47%	5 745,95 € -0,15%	64,80%	3,04%
Spain	% yoy	4 140,60 €	59,49%	4 317,35 € 4,27%	57,05%	4 499,50 € 4,22%	56,63%	4 496,88 € -0,06%	56,13%	5 076,65 € 12,89%	56,88%	5 064,02 € -0,25%	57,11%	4,11%
Portugal	% yoy	806,40 €	11,59%	800,18 € -0,77%	10,57%	784,20 € -2,00%	9,87%	724,68 € -7,59%	9,05%	678,03 € -6,44%	7,60%	681,93 € 0,58%	7,69%	-3,30%
Emerging Co	untries % yoy	2 012,50 €	28,92%	2 450,48 € 21,76%	32,38%	2 661,89 € 8,63%	33,50%	2 789,41 € 4,79%	34,82%	3 170,78 € 13,67%	35,53%	3 121,62 € -1,55%	35,20%	9,18%
Argentina	% yoy	695,50 €	9,99%	951,64 € 36,83%	12,57%	1 052,42 € 10,59%	13,25%	1 096,03 € 4,14%	13,68%	1 532,30 € 39,81%	17,17%	1 310,88 € -14,45%	14,78%	13,51%
Brazil	% yoy	1 194,40 €	17,16%	1 350,54 € 13,07%	17,85%	1 440,69 € 6,68%	18,13%	1 523,74 € 5,76%	19,02%	1 435,63 € -5,78%	16,08%	1 611,87 € 12,28%	18,18%	6,18%
China	% yoy	122,60 €	1,76%	148,30 € 20,96%	1,96%	168,77 € 13,81%	2,12%	169,64 € 0,51%	2,12%	202,85 € 19,58%	2,27%	198,86 € -1,97%	2,24%	10,16%
Number of stor (COCO + Fran		4639	100,00%	4933	100%	6463	100,00%	7306	100,00%	7718	100,00%	7799	100,00%	Yearly Average Stores Growth
Iberia	% yoy	3380	72,86%	3497 3,46%	70,89%	4792 37,03%	74,15%	5415 13,00%	74,12%	5562 2,71%	72,07%	5498 -1,15%	70,50%	11,01%
Spain	% yoy	2827	60,94%	2925 3,47%	59,29%	4151 41,91%	64,23%	4781 15,18%	65,44%	4941 3,35%	64,02%	4875 -1,34%	62,51%	12,51%
Portugal	% yoy	553	11,92%	572 3,44%	11,60%	641 12,06%	9,92%	634 -1,09%	8,68%	621 -2,05%	8,05%	623 0,32%	7,99%	2,54%
Emerging Ma % yoy	rkets	1259	27,14%	1436 14,06%	29,11%	1671 16,36%	25,85%	1891 13,17%	25,88%	2156 14,01%	27,93%	2301 6,73%	29,50%	12,87%
Brazil	% yoy	480	10,35%	561 16,88%	11,37%	667 18,89%	10,32%	799 19,79%	10,94%	929 16,27%	12,04%	1050 13,02%	13,46%	16,97%
Argentina	% yoy	495	10,67%	559 12,93%	11,33%	643 15,03%	9,95%	724 12,60%	9,91%	846 16,85%	10,96%	872 3,07%	11,18%	12,10%
China	% yoy	284	6,12%	316 11,27%	6,41%	361 14,24%	5,59%	368 1,94%	5,04%	381 3,53%	4,94%	379 -0,52%	4,86%	1,65%

**Annex 6 – Competitors of DIA** 

	Jerónimo Martins									
In Millions of EUR except percent	2011	2012	2013	2014	2015	2016				
Sales	9 838,20 €	10 683,10 €	11 828,90 €	12 680,20 €	13 728,00 €	14 622,00 €				
Gross Margin	22,81%	21,96%	21,48%	21,13%	21,40%	21,29%				
EBITDA	708,40 €	720,70 €	772,00 €	723,60 €	778,30 €	830,00 €				
EBITDA margin	7,20%	6,75%	6,53%	5,71%	5,67%	5,68%				
Net Income	340,30 €	360,50 €	382,30 €	301,70 €	333,30 €	593,00 €				
Market Capitalization	8 048,70 €	9 187,70 €	8 945,40 €	5 245,20 €	7 548,40 €	9 275,80 €				
EPS (Earnings per Share)	0,54 €	0,57 €	0,61 €	0,48 €	0,53 €	0,94 €				
DPS (Dividens per Share)	0,28 €	0,30 €	0,31 €	0,25 €	0,27 €	0,61 €				
Return on Equity	34,62	30,91	30,40	22,35	24,35	38,51				

Source: Bloomberg as of 14/02/2017

	Carrefour									
In Millions of EUR except percent	2011	2012	2013	2014	2015	2016				
Sales	78 291,00 €	77 982,00 €	77 263,00 €	76 927,00 €	79 409,00 €	78 774,00 €				
Gross Margin	22,50%	22,21%	22,57%	22,95%	23,39%	22,83%				
EBITDA	1 504,00 €	3 045,00 €	3 865,00 €	3 986,00 €	3 762,00 €	3 526,00 €				
EBITDA margin	1,92%	3,90%	5,00%	5,18%	4,74%	4,48%				
Net Income	371,00 €	1 259,00 €	1 263,00 €	1 249,00 €	980,00 €	746,00 €				
Market Capitalization	11 966,50 €	13 719,80 €	20 858,00 €	18 593,30 €	19 680,20 €	17 310,20 €				
EPS (Earnings per Share)	0,56 €	1,84 €	1,82 €	1,77 €	1,36 €	1,01 €				
DPS (Dividens per Share)	0,52 €	0,58 €	0,62 €	0,68 €	0,70 €	0,70 €				
Return on Equity	4,58	18,25	16,72	14,59	10,41	7,44				

Source: Bloomberg as of 14/02/2017

		Tesco				
In Millions of EUR except percent	2011	2012	2013	2014	2015	2016
Sales	70 925,50 €	73 841,40 €	78 046,20 €	75 103,50 €	71 706,30 €	74 842,70 €
Gross Margin	8,48%	8,44%	6,55%	6,31%	-3,87%	5,24%
EBITDA	6 261,30 €	6 562,00 €	4 889,10 €	4 960,70 €	- 5 288,10 €	3 272,40 €
EBITDA margin	8,83%	8,89%	6,26%	6,61%	-7,37%	4,37%
Net Income	3 114,00 €	3 241,70 €	34,50 €	1 150,90 €	- 7 231,70 €	189,70 €
Market Capitalization	38 149,50 €	30 079,70 €	34 639,40 €	32 841,40 €	27 492,50 €	19 041,30 €
EPS (Earnings per Share)	0,39 €	0,40 €	- €	0,14 €	- 0,89€	0,02 €
DPS (Dividens per Share)	0,17 €	0,17 €	0,18 €	0,17 €	0,01 €	- €
Return on Equity	17,06	16,36	0,16	6,21	-52,70	1,76

Source: Bloomberg as of 14/02/2017

	Metro AG									
In Millions of EUR except percent	2011	2012	2013	2014	2015	2016				
Sales	65 926,00 €	66 739,00 €	65 679,00 €	59 937,00 €	59 219,00 €	58 417,00 €				
Gross Margin	21,40%	21,24%	20,89%	20,75%	19,62%	19,66%				
EBITDA	3 429,00 €	3 018,00 €	3 133,00 €	2 228,00 €	2 176,00 €	2 428,00 €				
EBITDA margin	5,20%	4,52%	4,77%	3,72%	3,67%	4,16%				
Net Income	631,00€	17,00 €	- 35,00€	127,00 €	672,00€	599,00€				
Market Capitalization	9 204,60 €	6 868,00 €	9 544,00 €	8 540,60 €	8 037,40 €	8 667,30 €				
EPS (Earnings per Share)	1,93 €	0,05 €	- 0,11 €	0,39 €	2,06€	1,83 €				
DPS (Dividens per Share)	1,35 €	1,00 €	- €	0,90 €	1,00 €	1,00 €				
Return on Equity	9,96 €	0,27 €	- 0,62 €	2,50 €	13,22 €	11,41 €				

Source: Bloomberg as of 14/02/2017

Casino Guichard Perrachon									
In Millions of EUR except percent	2011	2012	2013	2014	2015	2016			
Sales	34 361,00 €	41 971,00 €	47 870,00 €	48 493,00 €	35 312,00 €	36 030,00 €			
Gross Margin	26,06%	25,84%	25,53%	24,94%	24,07%	24,05%			
EBITDA	2 110,00 €	3 498,00 €	3 636,00 €	2 747,00 €	1 357,00 €	1 072,00 €			
EBITDA margin	6,14%	8,33%	7,60%	5,66%	3,84%	2,98%			
Net Income	568,00 €	1 062,00 €	855,00 €	251,00 €	43,00 €	2 679,00 €			
Market Capitalization	7 194,00 €	8 123,20 €	9 458,50 €	8 648,10 €	4 801,30 €	5 060,40 €			
EPS (Earnings per Share)	4,99 €	9,42 €	7,42 €	2,04 €	0,81 €	23,65 €			
DPS (Dividens per Share)	3,00 €	3,00 €	3,12 €	3,12 €	3,12 €	3,12 €			
Return on Equity	8,71	16,09	12,6	3,61	-1,67	45,22			

Source: Bloomberg as of 20/02/2017

## Annex 7 – Macroeconomic data

	Real GDP Growth										
Year	2011	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020E	2021E
Portugal	-1,83%	-4,03%	-1,13%	0,91%	1,45%	1,01%	1,09%	1,16%	1,16%	1,15%	1,18%
Spain	-1,00%	-2,62%	-1,67%	1,36%	3,21%	3,06%	2,17%	1,94%	1,86%	1,77%	1,64%
Argentina	6,00%	-1,03%	2,41%	-2,51%	2,46%	-1,76%	2,73%	2,77%	2,90%	3,12%	3,27%
Brazil	3,91%	1,92%	3,01%	0,10%	-3,85%	-3,27%	0,49%	1,49%	1,97%	1,99%	1,99%
China	9,50%	7,90%	7,80%	7,30%	6,90%	6,59%	6,17%	6,03%	6,00%	5,90%	5,80%

Source: International Monetary Fund, World Economic Outlook Database, October 2016

				I	nflation						
Year	2011	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020E	2021E
Portugal	3,55%	2,78%	0,44%	-0,16%	0,51%	0,73%	1,13%	1,43%	1,53%	1,64%	1,81%
Spain	3,19%	2,44%	1,41%	-0,15%	-0,50%	-0,32%	1,02%	1,06%	1,27%	1,47%	1,56%
Argentina	9,78%	10,04%	10,62%	24,90%	26,90%	40,00%	23,22%	19,02%	14,97%	11,37%	9,70%
Brazil	6,64%	5,40%	6,20%	6,33%	9,03%	9,02%	5,39%	4,80%	4,60%	4,47%	4,51%
China	5,40%	2,65%	2,62%	1,99%	1,44%	2,08%	2,30%	2,40%	2,60%	3%	3%

Source: International Monetary Fund, World Economic Outlook Database, October 2016

	Unemployment rate										
Year	2011	2012	2013	2014	2015	2016	2017E	2018E	2019E	2020E	2021E
Portugal	12,68%	15,53%	16,18%	13,89%	12,44%	11,16%	10,70%	10,26%	9,81%	9,36%	8,90%
Spain	21,40%	24,80%	26,10%	24,44%	22,08%	19,40%	17,99%	16,95%	16,15%	15,62%	15,33%
Argentina	7,15%	7,20%	7,08%	7,25%	5,90%	9,19%	8,47%	8,33%	7,49%	6,95%	6,77%
Brazil	5,97%	5,48%	7,20%	6,83%	8,53%	11,21%	11,54%	11,08%	10,44%	10,05%	10,00%
China	4,09%	4,09%	4,05%	4,09%	4,05%	4,05%	4,05%	4,05%	4,05%	4,05%	4,05%

Source: International Monetary Fund, World Economic Outlook Database, October 2016

 $Annex\ 8-DIA\ growth\ analysis\ 2011-2016$ 

			Growth Analy	sis			
	2011	2012	2013	2014	2015	2016	CAGR (2011-2016)
Net Sales	9 843,50 €	9 839,35 €	8 039,84 €	8 116,22 €	9 021,67 €	8 978,60 €	-1,82%
% change YoY	0,00%	-0,04%	-18,29%	0,95%	11,16%	-0,48%	
EBITDA	494,19 €	577,08 €	542,99 €	508,51 €	488,17 €	528,01 €	1,33%
% change YoY	0,00%	16,77%	-5,91%	-6,35%	-4,00%	8,16%	
EBIT	216,80 €	308,14 €	354,04 €	323,91 €	274,14 €	295,06 €	6,36%
% change YoY	0,00%	42,13%	14,90%	-8,51%	-15,36%	7,63%	
Earnings Before Taxes (EBT)	182,28 €	283,28 €	321,14 €	283,20 €	218,12 €	243,12 €	5,93%
% change YoY	0,00%	55,41%	13,36%	-11,81%	-22,98%	11,46%	
Net Income	94,37 €	146,39 €	196,06 €	329,22 €	299,25 €	174,00 €	13,02%
% change YoY	0,00%	55,11%	33,93%	67,92%	-9,10%	-41,85%	
Dividends per Share	0,54 €	0,11 €	0,13 €	0,16 €	0,18 €	0,20 €	-18,02%
% change YoY	0,00%	-79,63%	18,18%	23,08%	12,50%	11,11%	
Earnings per Share - EPS	0,14 €	0,22 €	0,30 €	0,51 €	0,49 €	0,28 €	15,01%
% change YoY	0,00%	55,11%	39,73%	67,92%	-3,66%	-42,62%	
Total Assets	3 309,58 €	3 404,64 €	3 370,59 €	3 126,99 €	3 442,63 €	3 916,30 €	3,42%
% change YoY	0,00%	2,87%	-1,00%	-7,23%	10,09%	13,76%	
Total Equity	104,62 €	147,66 €	183,64 €	377,57 €	313,23 €	392,10 €	30,24%
% change YoY	0,00%	41,15%	24,36%	105,61%	-17,04%	25,18%	
Total Liabilities	3 204,97 €	3 256,98 €	3 186,95 €	2 749,42 €	3 129,40 €	3 524,20 €	1,92%
% change YoY	0,00%	1,62%	-2,15%	-13,73%	13,82%	12,62%	
Total Debt	944,80 €	1 036,12 €	977,99 €	733,86 €	1 308,34 €	1 233,40 €	5,48%
% change YoY	0,00%	9,67%	-5,61%	-24,96%	78,28%	-5,73%	
SG&A Expenses	54,30 €	54,70 €	41,80 €	45,00 €	55,10 €	56,30 €	0,73%
% change YoY	0,00%	0,74%	-23,58%	7,66%	22,44%	2,18%	

Annex 9 – DIA average analysis 2011 – 2016

			Average Analysis				
	2011	2012	2013	2014	2015	2016	Average
Fixed Assets/Total Sales*	16,95%	16,89%	20,41%	16,19%	15,95%	17,57%	17,33%
% change YoY	0,00%	-0,36%	20,81%	-20,68%	-1,44%	10,11%	
Net Working Capital Needs/Sales	-9,27%	-8,94%	-10,62%	-9,28%	-6,58%	-9,18%	-8,98%
% change YoY		-3,55%	18,72%	-12,55%	-29,17%	39,54%	
ROS - Return on Sales	1,56%	2,22%	3,12%	2,83%	2,15%	2,33%	2,37%
% change YoY	0,00%	42,44%	40,37%	-9,26%	-24,04%	8,33%	
Debt/Total Sales	9,60%	10,53%	12,16%	9,04%	14,50%	13,74%	11,60%
% change YoY	0,00%	9,71%	15,52%	-25,67%	60,39%	-5,28%	
Interest Expense/Sales	0,452%	0,536%	0,582%	0,715%	0,732%	0,723%	0,62%
% change YoY	0,00%	18,54%	8,46%	22,90%	2,34%	-1,15%	
EBITDA/Sales	5,02%	5,86%	6,75%	6,27%	5,41%	5,88%	5,87%
% change YoY	0,00%	16,82%	15,15%	-7,23%	-13,64%	8,68%	
Net Income/Sales	0,96%	1,49%	2,44%	4,06%	3,32%	1,94%	2,37%
% change YoY	0,00%	55,18%	63,91%	66,34%	-18,23%	-41,58%	
Tax rate	30%	30%	30%	30%	30%	30%	30%

\*Excluding intangible assets like goodwill Source: Author clculations

Annex 10 - DIA sales growth analysis 2011 - 2016

		Sales Growt	h			
In Millions of EUR except percent	2011	2012	2013	2014	2015	2016
Total Sales	9 728,54 €	9 707,55 €	7 945,58 €	8 010,97 €	8 925,45 €	8 867,62 €
Nominal growth rate		-0,22%	-18,15%	0,82%	11,42%	-0,65%
Inflation rate		0,79%	0,69%	0,89%	1,17%	1,49%
Real growth rate		-1,00%	-18,71%	-0,07%	10,13%	-2,11%

Annex 11 – DIA economic profitability analysis 2011 – 2016

	Economi	ic Profitability				
In Millions of EUR except percent	2011	2012	2013	2014	2015	2016
EBIT + Interest Income	160,37 €	241,91 €	261,14 €	243,18 €	201,16 €	218,63 €
Total Assets	3 309,58 €	3 404,64 €	3 370,59 €	3 126,99 €	3 442,63 €	3 916,30 €
ROA - Return on Assets	4,85%	7,11%	7,75%	7,78%	5,84%	5,58%
ROS (including interest income)	1,65%	2,49%	3,29%	3,04%	2,25%	2,47%
ROS	1,56%	2,22%	3,12%	2,83%	2,15%	2,33%
Total Assets Turnover	2,94	2,85	2,36	2,56	2,59	2,26
ROA	4,85%	7,11%	7,75%	7,78%	5,84%	5,58%
Non current assets	2 206,31 €	2 202,12 €	2 239,75 €	1 996,98 €	2 355,10 €	2 507,30 €
Operating current assets	788,99 €	816,01 €	852,39 €	912,50 €	910,63 €	1 148,30 €
Operating current liabilities	1 983,71 €	2 105,33 €	1 925,45 €	1 753,86 €	1 754,93 €	1 942,70 €
NOWCN - Non Operating Working Capital Needs -	1 194,72 € -	1 289,31 € -	1 073,05 € -	841,36 € -	844,29 € -	794,40 €
Invested Capital	1 011,59 €	912,81 €	1 166,69 €	1 155,62 €	1 510,81 €	1 712,90 €
ROIC - Return on Invested Capital	15,00%	23,63%	21,24%	19,62%	12,70%	12,06%
Invested Capital Turnover	962%	1063%	681%	693%	591%	518%
Fixed Assets/Sales	22,68%	22,68%	28,19%	24,93%	26,39%	28,27%
OpNWC/Sales	30,47%	30,10%	39,03%	36,61%	34,43%	42,27%
Fixed Assets/Sales + OpNWC/Sales	53,15%	52,78%	67,22%	61,54%	60,82%	70,54%
ROIC - Return on Invested Capital	15,00%	23,63%	21,24%	19,62%	12,70%	12,06%

Annex 12 – DIA financial profitability analysis 20011 - 2016

	F	inancial Profita	bility			
In Millions of EUR except percent	2011	2012	2013	2014	2015	2016
Gross Profit margin (%)	21,49%	21,48%	21,74%	22,04%	22,44%	22,97%
% change YoY		-0,07%	1,23%	1,37%	1,81%	2,35%
Fixed Expenses Effect	23,63%	27,68%	31,43%	28,80%	24,37%	25,93%
% change YoY		17,11%	13,56%	-8,37%	-15,37%	6,37%
Depreciation & Amortization Effect	43,87%	53,40%	65,20%	63,70%	56,16%	55,88%
% change YoY		21,71%	22,11%	-2,31%	-11,84%	-0,49%
Invested Capital Turnover	962%	1063%	681%	693%	591%	518%
% change YoY		10,58%	-35,96%	1,79%	-14,78%	-12,37%
Interest Expense Effect	84,08%	91,93%	90,71%	87,43%	79,56%	82,40%
% change YoY		9,34%	-1,33%	-3,61%	-9,00%	3,56%
Equity Turnover	9,19%	7,20%	3,71%	1,84%	1,89%	1,32%
% change YoY		-21,65%	-48,51%	-50,49%	2,73%	-30,00%
Tax Effect	54,22%	64,05%	68,61%	73,67%	137,87%	71,57%
% change YoY		18,13%	7,12%	7,38%	87,14%	-48,09%
ROE - Return On Equity	0,8981%	1,43%	0,70%	0,33%	0,38%	0,13%
% change YoY		59,40%	-51,08%	-52,67%	13,26%	-64,27%
Return on Equity	90,21%	99,14%	106,76%	87,20%	95,54%	44,38%

Source: Author calculations

Annex 13 – DIA operating profitability 2011 - 2016

	0	perating Profit:	ability			
In Millions of EUR except percent	2011	2012	2013	2014	2015	2016
Total Sales	9 728,54 €	9 707,55 €	7 945,58 €	8 010,97 €	8 925,45 €	8 867,62 €
Variable Charges	7 752,53 €	7 754,44 €	6 312,37 €	6 350,65 €	7 018,88 €	6 942,01 €
Gross Profit	1 976,01 €	1 953,11 €	1 633,21 €	1 660,31 €	1 906,57 €	1 925,61 €
Gross Profit Margin	21,49%	21,48%	21,74%	22,04%	22,44%	22,97%
Operating Fixed Charges	1 596,77 €	1 507,83 €	1 184,48 €	1 257,05 €	1 514,62 €	1 508,58 €
EBITDA	494,19€	577,08 €	542,99 €	508,51 €	488,17€	528,01 €
EBIT Margin	2,23%	3,17%	4,46%	4,04%	3,07%	3,33%
Cash Flow Margin	4,46%	4,10%	5,43%	4,30%	2,16%	8,61%
Depreciation & Amortization Charges	277,39 €	268,94 €	188,95 €	184,60 €	214,03 €	232,95 €
Net Operating Income or EBIT	216,80 €	308,14 €	354,04 €	323,91 €	274,14 €	295,06 €
Profit Margin	0,97%	1,51%	2,47%	4,11%	3,35%	1,96%

Annex 14 – DIA dividend policy effects 2011 - 2016

	Divid	lend Policy Ef	fect			
In Millions of EUR	2011	2012	2013	2014	2015	2016
Dividends	368,60 €	72,50 €	83,90 €	103,30 €	112,60 €	122,20 €
Net Income	94,37 €	146,39 €	196,06 €	329,22 €	299,25 €	174,00 €
Retained Earnings	98,46 €	157,88 €	209,26 €	329,23 €	299,22 €	174,00 €
Group Equity	98,77 €	152,10 €	183,64 €	377,62 €	313,24 €	392,20 €
Dividend Payout	391%	50%	43%	31%	38%	70%
Retention Ratio	104,33%	62,42%	64,09%	50,50%	63,23%	29,75%
GROE (1st approach)	95,55%	96,24%	106,76%	87,18%	95,53%	44,37%
Internal Growth Factor (1st approach)	99,69%	103,80%	113,95%	87,19%	95,52%	44,37%
Internal Growth Factor (2nd approach)	99,69%	60,08%	68,43%	44,03%	60,41%	13,20%
Rate of Sustainable Growth	31761,94%	-2729,20%	-816,68%	680,41%	2133,94%	79,74%

Annex 15 – DIA breakeven analysis 2011 - 2016

	Brea	akeven analysi	s			
In Millions of EUR	2011	2012	2013	2014	2015	2016
Sales	9 728,54 €	9 707,55 €	7 945,58 €	8 010,97 €	8 925,45 €	8 867,62 €
All Fixed charges (Operational)	1 874,16 €	1 776,77 €	1 373,43 €	1 441,66 €	1 728,65 €	1 741,53 €
All Fixed Charged (Operational + Financial)	1 909,55 €	1 802,61 €	1 406,33 €	1 482,47 €	1 784,67 €	1 793,56 €
Gross Profit Margin	21,49%	21,48%	21,74%	22,04%	22,44%	22,97%
BE in € (Operational)	8 719,84 €	8 272,83 €	6 317,17 €	6 541,29 €	7 703,74 €	7 582,89 €
Total BE (Operational and Financial)	8 884,51 €	8 393,15 €	6 468,49 €	6 726,47 €	7 953,42 €	7 809,44 €
Safety Margin	11,57%	17,34%	25,78%	22,47%	15,86%	16,94%
Maximum Sales Drop	10,37%	14,78%	20,49%	18,35%	13,69%	14,49%

Source: Author calculations

**Annex 16 – DIA risk analysis 2011 – 2016** 

		Degree of Ope	erating Levera	ige		
In Millions of EUR	2011	2012	2013	2014	2015	2016
Variation EBIT	91,34 €	45,90 € -	30,13 € -	49,76 €	20,92 €	- €
EBIT	216,80 €	308,14 €	354,04 €	323,91 €	274,14 €	295,06 €
Variation Sales -	20,99 € -	1 761,97 €	65,39 €	914,49 € -	57,83 €	- €
Sales	9 728,54 €	9 707,55 €	7 945,58 €	8 010,97 €	8 925,45 €	8 867,62 €
Gross Profit	2 090,96 €	2 084,90 €	1 727,47 €	1 765,56 €	2 002,79 €	2 036,59 €
DOL (Ex-Ante)	9,64	6,77	4,88	5,45	7,31	6,90
DOL (Ex-Post)	-195,26	-0,82	-10,34	-1,35	-11,78	-

Source: Author calculations

Degree of Finantial Leverage							
In Millions of EUR	2011	2012	2013	2014	2015	2016	
Variation Net Income	52,01 €	49,67 €	133,17 € -	29,97 € -	125,25 €	- €	
Net income	94,37 €	146,39 €	196,06 €	329,22 €	299,25 €	174,00 €	
Variation EBIT	91,34 €	45,90 € -	30,13 € -	49,76 €	20,92 €	- €	
EBIT	216,80 €	308,14 €	354,04 €	323,91 €	274,14 €	295,06 €	
EBT	182,28 €	283,28 €	321,14 €	283,20 €	218,12 €	243,12 €	
DFL (Ex-Ante)	1,19	1,09	1,10	1,14	1,26	1,21	
DFL (Ex-Post)	1,31	2,28	-7,98	0,59	-5,49	-	

Source: Author calculations

Degree of Combined Leverage							
In Millions of EUR	2011	2012	2013	2014	2015	2016	
Var. Net Income	52,01 €	49,67 €	133,17 € -	29,97 € -	125,25 €	- €	
Net Income	94,37 €	146,39 €	196,06 €	329,22 €	299,25 €	174,00 €	
Vari. Sales	- 20,99 € -	1 761,97 €	65,39 €	914,49 € -	57,83 €	- €	
Sales	9 728,54 €	9 707,55 €	7 945,58 €	8 010,97 €	8 925,45 €	8 867,62 €	
Gross Profit	2 090,96 €	2 084,90 €	1 727,47 €	1 765,56 €	2 002,79 €	2 036,59 €	
EBT	182,28 €	283,28 €	321,14 €	283,20 €	218,12 €	243,12 €	
DCL (Ex-Ante)	11,47 €	7,36 €	5,38 €	6,23 €	9,18 €	8,38 €	
DCL (Ex-Post)	-255,44	-1,87	82,54	-0,80	64,59	-	

**Annex 17 – DIA net treasury 20011 – 2016** 

		Net	Treasur	y							
In Millions of EUR	2011	- 2	2012		2013		2014		2015		2016
Permament Capital	958,86 €	9	916,91€		1 023,10 €		1 006,49 €		1 306,78 €		1 547,10 €
(-) Fixed Assets	2 206,31 €	2 2	202,12 €		2 239,75 €		1 996,98 €		2 355,10 €		2 507,30 €
(=) Net Working Capital	- 1 247,45 €	- 12	285,20 €	-	1 216,65 €	-	990,49 €	-	1 048,32 €	-	960,20 €
Op. Current Assets	713,18 €	,	706,62 €		754,53 €		797,71 €		783,68 €		930,50 €
(-) Op. Current Liabilities	1 625,89 €	1:	586,58 €		1 608,16 €		1 551,27 €		1 376,94 €		1 754,40 €
(=) Net Operating Working Capital Needs	- 912,71 €	- 8	879,96 €	-	853,63 €	-	753,56 €	-	593,26 €	-	823,90 €
Non - Op. Current Assets	75,81 €		109,39€		97,86 €		114,79 €		126,95 €		88,10 €
(-)Non- Op. Current Liabilities	12,68 €		35,73 €		48,22 €		8,81 €		8,51 €		20,00 €
(=) Net Non-Operating Working Capital	63,12 €		73,66 €		49,65 €		105,98 €		118,44 €		68,10 €
Total Working Capital Needs	- 849,58 €	- 8	806,30 €	-	803,98 €	-	647,58 €	-	474,81 €	-	755,80 €
Net Treasury (1st Approach)	- 397,87 €	- 4	478,90 €	-	412,67 €	-	342,91 €	-	573,51 €	-	204,40 €
% change YoY	-41,82%		20,37%	,	-13,83%	,	-16,90%		67,25%		-64,36%
Net Treasury Assets	289,94 €	3	350,43 €		262,04 €		199,00 €		154,63 €		364,60 €
(-) Net Treasury Liabilities	345,14 €	4	483,01 €		269,07 €		193,79 €		369,48 €		168,30 €
Net Treasury (2nd Approach)	- 55,20 €	-	132,59 €	-	7,04 €		5,22 €	-	214,85 €		196,30 €

Annex 18 – DIA financial structure analysis 2011 – 2016

Financial Structure							
In Millions of EUR	2011	2012	2013	2014	2015	2016	
Medium Long Term Debt	599,66 €	553,11 €	708,92 €	540,07 €	938,86€	1 065,10 €	
Short Term Debt	345,14 €	483,01 €	269,07 €	193,79 €	369,48 €	168,30 €	
Net Debt	654,85 €	685,70 €	715,95 €	534,85 €	1 153,71 €	868,80 €	
Interest Expense	44,01 €	52,05 €	46,21 €	57,26 €	65,29 €	64,12 €	
Average Interest Expense Rate	4,66%	5,02%	4,72%	7,80%	4,99%	5,20%	
Cash & Equivalents	289,94 €	350,43 €	262,04 €	199,00 €	154,63 €	364,60 €	
Total Debt	944,80 €	1 036,12 €	977,99 €	733,86 €	1 308,34 €	1 233,40 €	
% change YoY	45,13%	9,67%	-5,61%	-24,96%	78,28%	-5,73%	
Short Term Debt to Total Debt	36,53%	46,62%	27,51%	26,41%	28,24%	13,65%	
Long Term Debt to Total Debt	63,47%	53,38%	72,49%	73,59%	71,76%	86,35%	
Market Capitalization	2 374,30 €	3 267,60 €	4 232,00 €	3 663,60 €	3 388,70 €	2 903,80 €	

Source: Author calculations

Annex 19 – Solvency and Liquidity ratios for comparable companies

Capital Structure, Debt Coverage and Liquidity ratios for comparable companies								
Year 2016	Jerónimo Martins	Carrefour	Metro	Tesco	Casino Guichard Pechard			
Total Equity / Total Assets	35,01%	24,58%	5,07%	13,99%	34,35%			
Total Liabilities / Total Assets	64,99%	75,42%	94,93%	86,01%	65,65%			
Debt / Total Assets	5,97%	27,44%	0,04%	26,16%	24,30%			
Liabilities Structure (Current Liab./Total Liab.)	92,99%	68,12%	86,42%	49,20%	62,27%			
Net Debt / EBITDA	-0,37	1,30	-1,33	2,22	4,13			
Debt to Equity	0,07	0,78	0,05	1,47	0,91			
Solvency Ratio (E/L)	0,54	0,33	0,05	0,16	0,52			
Current Ratio	0,49	0,76	0,9	0,79	1,08			
Quick Ratio	0,28	0,40	0,19	0,66	0,39			
Cash Ratio	0,19	0,14	0,13	0,35	0,33			

Source: Morning Star and Bloomberg

**Annex 20 – WACC Calculations** 

WACC	
Risk Free Ratio (Rf)	2,90%
Beta	0,9718
Unlevered Beta	0,7491
Market Return (Rm)	11,30%
Equity Risk Premium (Rm-Rf)	8,40%
Cost of Equity (Re)	11,06%
Cost of Debt (Rd)	1,97%
Weighted average interest rate	1,97%
Short term Debt (in millions)	168,30€
Long term Debt (in millions)	1 065,10 €
Total Debt (in millions)	1 233,40 €
Shares outstanding (in millions of shares	622,46
Price per share	4,665 €
Equity Market Value (in millions)	2 903,78 €
D/(E+D)	29,81%
E/(E+D)	70,19%
Tax Rate	30,00%
(1 - Tax Rate)	70,00%
WACC	8,18%

Annex 21 – Forecast geographic weight on sales 2016 – 2019E

Forecasted Weight on Sales								
	2016	2017	2018	2019	Avg GDP growth 20/21			
Spain	57,11%	56,88%	55,24%	53,53%	1,70%			
Portugal	7,69%	7,58%	7,30%	7,03%	1,17%			
Brazil	18,18%	19,87%	21,23%	22,66%	1,99%			
Argentina	14,78%	15,67%	16,23%	16,78%	3,19%			

Source: Author calcutions

Steady State Growth 1,98%

**Annex 22- Recommendation criteria** 

Recomendation	Upside
Buy	> 15%
Hold	0% - 15%
Sell	< 0%

Annex 23 – FCFF analysis 2016 – 2019

	Free Cash Flo	ow to Firm			
I	Historical year	1	2	3	
In Millions of EUR	2016	2017E	2018E	2019E	
Total Sales	8 978,60 €	9 096,30 €	9 548,94 €	10 036,98 €	
% change YoY		1,31%	4,98%	5,11%	2,00%
COGS	6 942,01 €	6 971,89 €	7 281,12 €	7 612,97 €	
% change YoY		0,43%	4,44%	4,56%	
Gross Profit	2 036,59 €	2 124,42 €	2 267,82 €	2 424,01 €	
% change YoY		4,31%	6,75%	6,89%	
Gross Profit Margin	22,97%	23,35%	23,75%	24,15%	
% change YoY		1,69%	1,69%	1,69%	
Fixed Costs	1 508,58 €	2 677,27 €	2 867,62 €	3 075,59 €	
% change YoY		77,47%	7,11%	7,25%	
EBITDA	528,01 €	552,85 €	599,81 €	651,58 €	
% change YoY		4,70%	8,49%	8,63%	
EBITDA margin	5,88%	6,08%	6,28%	6,49%	
% change YoY		3,35%	3,35%	3,35%	
D&A	232,95 €	219,22€	230,13 €	241,89 €	
% change YoY	2,59%	2,41%	2,41%	2,41%	
EBIT	295,06 €	333,63 €	369,68 €	409,69 €	
% change YoY		13,07%	10,80%	10,82%	
EBIT Margin	3,29%	3,67%	3,87%	4,08%	
% change YoY		11,61%	5,55%	5,44%	
Tax Rate	30%	30%	30%	30%	
% change YoY		0,00%	0,00%	0,00%	
EBIT * (1-t)	206,54 €	233,54 €	258,77 €	286,78 €	
% change YoY		13,07%	10,80%	10,82%	
Fixed Assets	2 507,30 €	1 576,06 €	1 654,48 €	1 739,04 €	
% change YoY		-37,14%	4,98%	5,11%	
Net Capex	- € -	931,24 €	78,43 €	84,56 €	
% change YoY		-37,14%	-108,42%	7,82%	
Net Working Capital Needs -	823,90 € -	759,14 € -	796,91 € -	837,64 €	
% change YoY		-7,86%	4,98%	5,11%	
Var. Working Capital Needs	- €	64,76 € -	37,78 € -	40,73 €	
% change YoY			-158,33%	7,82%	
Free Cash Flow to Firm	- €	1 100,03 €	218,12 €	242,95 €	247,81 €
% change YoY			-80,17%	11,38%	
Discounted FCFF	- €	1 085,79 €	212,52 €	233,65 €	
% change YoY			-80,43%	9,94%	
EV of Future FCFF	4 564,46 €	3 837,66 €	3 933,33 €	4 012,00 €	
EV of Future FCFF + FCFF Year	4 564,46 €	4 937,68 €	4 151,46 €	4 254,95 €	

Terminal Value	4 012,00 €
Present value of terminal value	3 428,41 €
Enterprise value	4 564,46 €
Non operating assets	390,60 €
Firm value	4 955,06 €
Current outstanding debt	1 233,40 €
Equity value	3 721,66 €
Total shares outstanding	622,46
Fair price per share in EUR	5,98 €

Annex 24 - FCFF with constant zero growth full calculations

FO	CFF Analysis with (	Constant 0% Grow	th		
	Historical year	1	2	3	
In Millions of EUR	2016	2017E	2018E	2019E	
Total Sales	8 978,60 €	8 978,60 €	8 978,60 €	8 978,60 €	
% change YoY		0,00%	0,00%	0,00%	0,00%
COGS	6 942,01 €	6 942,01 €	6 942,01 €	6 942,01 €	
% change YoY		0,00%	0,00%	0,00%	
Gross Profit	2 036,59 €	2 036,59 €	2 036,59 €	2 036,59 €	
% change YoY		0,00%	0,00%	0,00%	
Gross Profit Margin	22,97%	22,97%	22,97%	22,97%	
% change YoY		0,00%	0,00%	0,00%	
Fixed Costs	1 508,58 €	1 508,58 €	1 508,58 €	1 508,58 €	
% change YoY		0,00%	0,00%	0,00%	
EBITDA	528,01 €	528,01 €	528,01 €	528,01 €	
% change YoY		0,00%	0,00%	0,00%	
EBITDA margin	5,88%	5,88%	5,88%	5,88%	
% change YoY		0,00%	0,00%	0,00%	
D&A	232,95 €	232,95 €	232,95 €	232,95 €	
% change YoY		0,00%	0,00%	0,00%	
EBIT	295,06 €	295,06 €	295,06 €	295,06 €	
% change YoY		0,00%	0,00%	0,00%	
EBIT Margin	3,29%	3,29%	3,29%	3,29%	
% change YoY		0,00%	0,00%	0,00%	
Tax Rate	30%	30%	30%	30%	
% change YoY		0,00%	0,00%	0,00%	
EBIT * (1-t)	206,54 €	206,54 €	206,54 €	206,54 €	
% change YoY		0,00%	0,00%	0,00%	
Fixed Assets	2 507,30 €	2 507,30 €	2 507,30 €	2 507,30 €	
% change YoY		0,00%	0,00%	0,00%	
Net Working Capital Needs	- 823,90 € -	823,90 € -	823,90 € -	823,90 €	
% change YoY		0,00%	0,00%	0,00%	
Free Cash Flow to Firm	206,54 €	206,54 €	206,54 €	206,54 €	206,54 €
% change YoY		0,00%	0,00%	0,00%	
Discounted FCFF	- €	190,93 €	176,50 €	163,16 €	
% change YoY		0,00%	-7,56%	-7,56%	
EV of Future FCFF	2 525,94 €	2 525,94 €	2 525,94 €	2 525,94 €	
EV of Future FCFF + FCFF Year	2 732,48 €	2 732,48 €	2 732,48 €	2 732,48 €	

Terminal Value	2 525,94 €
	,
Present value of terminal value	2 158,51 €
Enterprise value	2 525,94 €
Non operating assets	390,60 €
Firm value	2 916,54 €
Current outstanding debt	1 233,40 €
Equity value	1 683,14 €
Total shares outstanding	622,46
Fair price per share in EUR	2,70 €

**Annex 25 - Bear case full calculations** 

FCI	FF Analysis consider	ing Lowest Estima	tes	
	Historical year	1	2	3
In Millions of EUR	2016	2017E	2018E	<b>2019E</b>
Total Sales	8 978,60 €	8 916,73 €	9 182,10 €	9 467,74 €
% change YoY	0%	-0,69%	2,98%	3,11%
COGS	6 942,01 €	6 834,25 €	7 001,40 €	7 181,21 €
% change YoY	0%	-1,55%	2,45%	2,57%
Gross Profit	2 036,59 €	2 082,48 €	2 180,70 €	2 286,53 €
% change YoY	0%	2,25%	4,72%	4,85%
Gross Profit Margin	23%	23,35%	23,75%	24,15%
% change YoY	0%	1,69%	1,69%	1,69%
Fixed Costs	1 508,58 €	2 624,42 €	2 757,46 €	2 901,16 €
% change YoY	0%	73,97%	5,07%	5,21%
EBITDA	528,01 €	541,94 €	576,76 €	614,63 €
% change YoY	0%	2,64%	6,43%	6,57%
EBITDA margin	0,06 €	6,08%	6,28%	6,49%
% change YoY	0%	3,35%	3,35%	3,35%
D&A	232,95 €	214,89 €	221,29 €	228,17 €
% change YoY	0%	2,41%	2,41%	2,41%
EBIT	295,06 €	327,05 €	355,48 €	386,46 €
% change YoY	0%	10,84%	8,69%	8,72%
EBIT Margin	3%	3,67%	3,87%	4,08%
% change YoY	0%	11,61%	5,55%	5,44%
Tax Rate	30%	30%	30%	30%
% change YoY	0%	0,00%	0,00%	0,00%
EBIT * (1-t)	206,54 €	228,93 €	248,83 €	270,52 €
% change YoY	0%	10,84%	8,69%	8,72%
Fixed Assets	2 507,30 €	1 544,94 €	1 590,92 €	1 640,41 €
% change YoY	0%	-38,38%	2,98%	3,11%
Net Working Capital Needs	- 823,90 € -	744,15 € -	766,30 € -	790,14 €
% change YoY	0%	-9,68%	2,98%	3,11%
Free Cash Flow to Firm	206,54 €	1 111,54 €	225,00 €	244,87 €
% change YoY	0%	438,17%	-79,76%	8,83%
Discounted FCFF	206,54 €	1 119,26 €	212,18 €	223,37 €
% change YoY	0%	441,90%	-81,04%	5,27%
EV of Future FCFF	4 135,40 €	3 362,00 €	3 411,91 €	3 446,03 €
EV of Future FCFF + FCFF Year	4 341,94 €	4 473,55 €	3 636,91 €	3 690,89 €

Fair price per share in EUR	5,29 €
Total shares outstanding	622,46
Equity value	3 292,60 €
Current outstanding debt	1 233,40 €
Firm value	4 526,00 €
Non operating assets	390,60 €
Enterprise value	4 135,40 €
Present value of terminal value	2 944,76 €
Terminal Value	3 446,03 €

**Annex 26 - Bull case full calculations** 

FCFF A	Analysis considerin	g Highest Estima	ates		
	Historical year	1	2	3	
In Millions of EUR	2016	2017E	2018E	2019E	
Total Sales	8 978,60 €	9 275,87 €	9 922,97 €	10 628,58 €	
% change YoY	0,00%	3,31%	6,98%	7,11%	3,00%
COGS	6 942,01 €	7 109,52 €	7 566,32 €	8 061,69 €	
% change YoY	0,00%	2,41%	6,43%	6,55%	
Gross Profit	2 036,59 €	2 166,35 €	2 356,65 €	2 566,88 €	
% change YoY	0,00%	6,37%	8,78%	8,92%	
Gross Profit Margin	22,97%	23,35%	23,75%	24,15%	
% change YoY	0,00%	1,69%	1,69%	1,69%	
Fixed Costs	1 508,58 €	2 730,12 €	2 979,95 €	3 256,87 €	
% change YoY	0,00%	80,97%	9,15%	9,29%	
EBITDA	528,01 €	563,77 €	623,30 €	689,99€	
% change YoY	0,00%	6,77%	10,56%	10,70%	
EBITDA margin	5,88%	6,08%	6,28%	6,49%	
% change YoY	0,00%	3,35%	3,35%	3,35%	
D&A	232,95 €	223,55 €	239,14 €	256,15 €	
% change YoY	0,00%	2,41%	2,41%	2,41%	
EBIT	295,06 €	340,22 €	384,16 €	433,84 €	
% change YoY	0,00%	15,31%	12,91%	12,93%	
EBIT Margin	3,29%	3,67%	3,87%	4,08%	
% change YoY	0,00%	11,61%	5,55%	5,44%	
Tax Rate	0,30 €	30%	30%	30%	
% change YoY	- €	0,00%	0,00%	0,00%	
EBIT * (1-t)	20654,13%	238,15 €	268,91 €	303,69 €	
% change YoY	0,00%	15,31%	12,91%	12,93%	
Fixed Assets	2 507,30 €	1 607,17 €	1 719,29 €	1 841,54 €	
% change YoY	0,00%	-35,90%	6,98%	7,11%	
Net Working Capital Needs	- 823,90 € -	774,13 € -	828,13 €	- 887,02 €	
% change YoY	0,00%	-6,04%	6,98%	7,11%	
Free Cash Flow to Firm	206,54 €	1 088,51 €	210,80 €	240,32 €	247,53 €
% change YoY	0,00%	427,02%	-80,63%	14,01%	
Discounted FCFF	- €	1 053,63 €	184,20 €	195,56 €	
% change YoY	0,00% 0.	.00%	-82,52%	6,17%	
EV of Future FCFF	5 153,31 €	4 486,18 €	4 642,21 €	4 781,47 €	
EV of Future FCFF + FCFF Year	5 359,85 €	5 574,69 €	4 853,00 €	5 021,79 €	

EV of Future FCFF + FCFF Source: Author calculations

Terminal Value	4 781,47 €
Present value of terminal value	4 085,95 €
Enterprise value	5 153,31 €
Non operating assets	390,60 €
Firm value	5 543,91 €
Current outstanding debt	1 233,40 €
Equity value	4 310,51 €
Total shares outstanding	622,46
Fair price per share in EUR	6,92 €

**Annex 27 - Equity multiples 2016** 

Equity Multiples (Full Year 2016)						
(in Millions of EUR expect	P / BV ratio	P / E ratio	P / S ratio	EPS	EBITDA	Dividend
per share)	1 / DV Tatio	1 / L latio	1 / 5 14110	EIS	Margin	Yield
DIA	7,27x	16,66x	0,32x	0,28 €	5,88%	3,59%
Jerónimo Martins	5,33x	15,61x	0,63x	0,94 €	5,68%	1,87%
Carrefour	1,66x	21,59x	0,21x	1,01 €	4,48%	2,98%
Tesco	2,41x	234,57x	0,28x	0,016 €	4,37%	0%
Metro	1,63x	15,77x	0,15x	1,83 €	4,16%	3,69%
Casino Guichard Perrachon	0,71x	10,81x	0,14x	4,22 €	2,98%	6,79%
Industry Average	3,17x	16,088x	0,28x	1,38 €	5%	3,15%

Source: Bloomberg and Financial Times

Annex 28 – Other recommendations and price targets

Institution	Price target	Recomendation
BBVA	6,80 €	outperform
Fidentiis	5,45 €	hold
BNP	4,00 €	underperform
Kepler Cheuvreux	5,90 €	buy
Raymond James	6,20 €	outperform
JB Capital	5,70 €	Neutral
Societe General	7,00 €	Buy
Morgan Stanley	5,50 €	Neutral
JP Morgan	4,30 €	Underweight
Jefferies	5,55 €	hold
HSBC	6,00 €	hold
Natixis	5,70 €	Neutral
Barclays	6,55 €	overweight
Caixabank	6,60 €	buy

Source: Bloomberg