ID Cover Page

Summary of WP Student Team

Jerónimo Martins Equity Research

Group constitution:

Student Name	Program	Individual Title
Gonçalo Ferreira da Silva	Finance	The Polish Sunday trading ban – impact on Biedronka and food retail industry
Povilas Navickas	Finance	Polish Beauty and Personal Care Market – Industry Analysis and Hebe’s Competitive Positioning
Michele Capparuccini	Finance	Alternative valuation methods: Monte Carlo simulation and Long Short-Term memory model for stock pricing
Francisco Cerveira	Finance	A deeper look into the supply chain
Tim Wellen	Finance	M&A growth opportunities for Jerónimo Martins in Romania

Work project carried out under the supervision of:

Advisor: Rosário André

Reading observations for jury:

Group Report

A Work Project, presented as part of the requirements for the Award of a Master's Degree in Finance from the Nova School of Business and Economics.

JERÓNIMO MARTINS EQUITY RESEARCH

THE POLISH SUNDAY TRADING BAN – IMPACT ON BIEDRONKA AND FOOD RETAIL INDUSTRY

POLISH BEAUTY AND PERSONAL CARE MARKET – INDUSTRY ANALYSIS AND HEBE'S COMPETITIVE POSITIONING

ALTERNATIVE VALUATION METHODS: MONTE CARLO SIMULATION AND LONG SHORT-TERM MEMORY MODEL FOR STOCK PRICING

A DEEPER LOOK INTO THE SUPPLY CHAIN

M&A GROWTH OPPORTUNITIES FOR JERÓNIMO MARTINS IN ROMANIA

Francisco Cerveira – 39251
Gonçalo Ferreira da Silva – 39353
Michele Capparuccini – 49271
Povilas Navickas – 48846
Tim Wellen – 49561

Work project carried out under the supervision of:

Rosário André

16/12/2022

Abstract

The following Work Project is an Equity Research report on Jerónimo Martins, SGPS, S.A., a leading food retail and distribution chain operating in Portugal, Poland and Colombia. The report initially provides, among others, an in-depth overview of the company's business model, financial performance and fundamentals, as well as industry, strategy and competitive positioning. This report also extends the analysis of Jerónimo Martins' business model, focusing on the company's cost side through a deep dive on its supply chain.

Keywords

Finance - Equity Research - Corporate Valuation - Consumer Staples - Food Retailing - Food Distribution

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Table of Contents

Company Description

Company Overview

Jerónimo Martins is an international group, based in Portugal that holds assets in the food business. The foundation of the Group's value proposition is high-quality food and strong price positions while operating in proximity to customers.

The Group's history dates back 230 years to when Jerónimo Martins opened his first store in 1792 in Chiado, Lisbon (Jerónimo Martins 2022). Since then, Jerónimo Martins has grown into a multinational food distribution group that operates more than 5,000 stores, with a presence in three countries on two continents (Jerónimo Martins 2022).

Although the company operates internationally, it was never the ambition to achieve global scale. Instead, long-term growth is guided by the principle of "local scale", meaning that Jerónimo Martins wants to become the market leader wherever operations are set up. This principle of "local scale" has contributed massively to the company's success and can be well observed when looking at the individual banners and their market share in the respective countries. JM's business can be divided into food distribution, specialized retail, and agribusiness, with food distribution accounting for around 95% of topline revenue (Jerónimo Martins 2022). While all banners of the group are very different because of the different countries they operate in, they do have some characteristics in common, including the strength in private labels and fresh food as well as the focus on price competitiveness.

In Poland, Jerónimo Martins owns the food store chain Biedronka since 1997, Poland's biggest discounter chain with a market share of around 25%. In 2021 the firm accounted for 70% of total revenues and 84% of EBITDA and is therefore the main business of the group (Jerónimo Martins 2022). Another business in Poland comprises the beauty and health chain Hebe. The product assortment ranges from body care products and cosmetics to accessories.

Portuguese banners in food distribution include Pingo Doce and Recheio. Pingo Doce is a leading supermarket operator in Portugal and is a joint venture between the Jerónimo Martins Group (51%) and Ahold Delhaize (49%). Recheio, on the other hand, owns the largest network of cash-and-carry stores in the country. Additionally, the group owns two smaller-sized specialized retail chains in Portugal. The Jeronymo banner operates around 20 Coffee shops. Hussel sells chocolates and confectionery and is a different joint venture the Group (51%) has with the German company, Douglas AG (49%). In 2013 the company expanded its operations to Colombia under the Ara banner. It is the group's youngest and also fastest-growing asset. Ara is considered to be the next growth driver and operates around 900 small-sized neighborhood grocery stores, which are primarily located in residential areas. Ultimately Jerónimo Martins started founded an agribusiness in Portugal in 2014. Jerónimo Martins Agro-Alimentar supplies the Portuguese companies of the group with strategic fresh products including dairy, livestock farming, aquaculture, and fruits and vegetables.

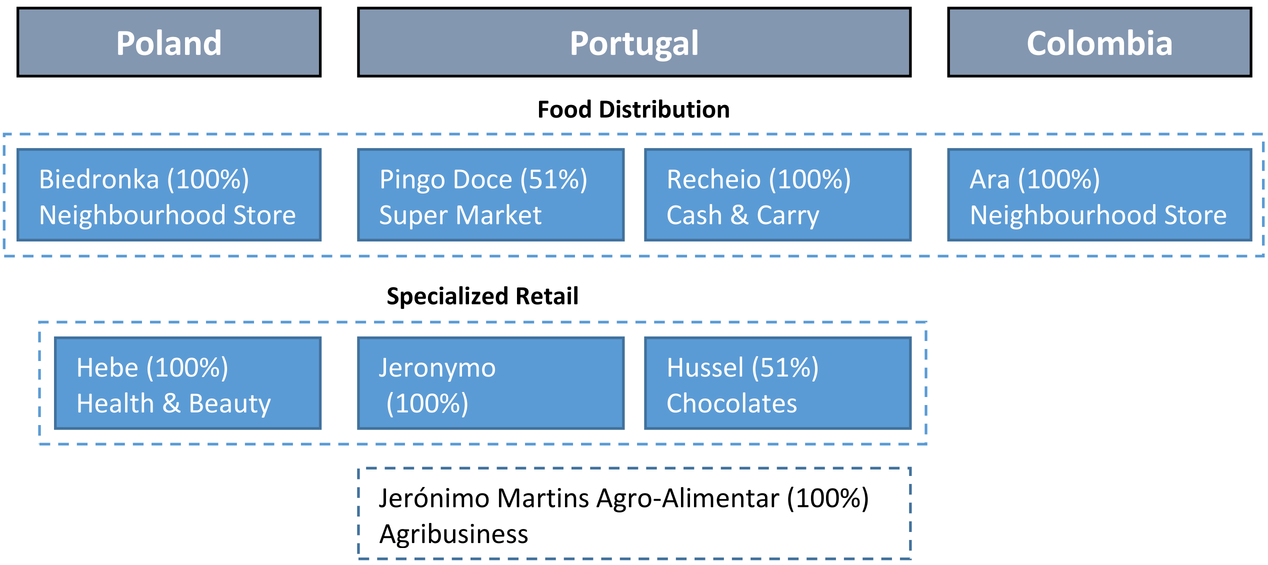

Figure 1- Business Overview

Governance Structure and Management

Jerónimo Martins changed from the previous monist model to an Anglo-Saxon governance model, which included the corporate bodies of the Shareholders' Meeting, Board of Directors, Audit Committee, and the Chartered Accountant.

The Board of Directors is composed of seven to eleven members who are elected by the General Shareholders' Meeting for three-year periods. The incorporation of non-executive and independent directors alongside the executive director is part of the Company's effort to achieve balance in the makeup of the Board of Directors. This approach is designed to further enrich and optimize the Company's management in terms of creating value by complementing the Board with a range of technical skills, contact networks, and connections in both local and international markets. Furthermore, the setup ensures adequate protection of the interests of all its shareholders by making sure that the activity of the remaining Board of Directors members is effectively monitored, overseen, and evaluated.

The current Chief Executive Officer Pedro Soares dos Santos has performed the role since 2010 when he was chosen to succeed his father Alexandre Soares dos Santos in the day-to-day management of the group. Furthermore, he is the also Chairman of the Board of Directors since 2013. With Pedro Soares dos Santos leading the group, who has not only worked in all geographical areas of the company before starting his precedency but can also draw on almost 40 years of experience working for the group.

Additionally, the Board of Directors established a Managing Committee as an ad hoc panel to advise the CEO about carrying out his responsibilities. These range from strategy implementation, new business ventures, accounts, and financial matters as well as control and implementation of management policies.

Ownership Structure

Jerónimo Martins is a public company. However, it has been family owned for over a century and the Santos family has been running operations for four generations. In 1921, Francisco Manuel dos Santos (1875–1953) acquired the majority of Jerónimo Martins. Today, 56,1% of shares are owned by the Sociedade Francisco Manuel dos Santos, a foundation which was established in memory of its name giver by the Santos family, to give back to the Portuguese society and country. Overall, it can be stated that the ownership structure of Jerónimo Martins is dominated by a single family. Generally speaking, family businesses tend to be more stable and the chief executive officers often stay in the position for many years, such as Pedro Soares dos Santos. Indeed, the Santos family had a significant impact on Jerónimo Martins' progress over the centuries. However, there is certainly the risk of a conflict of interest. For example, the decision of Alexandre Soares dos Santos to aggressively expand and diversify the business. These actions did not turn out as favorable and the firm faced significant financial distress costs at the beginning of the century, a consequence that has not really been independently investigated and debated. Other major shareholders include Comgest Global Investors (2,1%), BlackRock (2,1%) as well as T. Rowe Price Group (2%). The remaining 37,7% are made up of floating and own shares of the company.

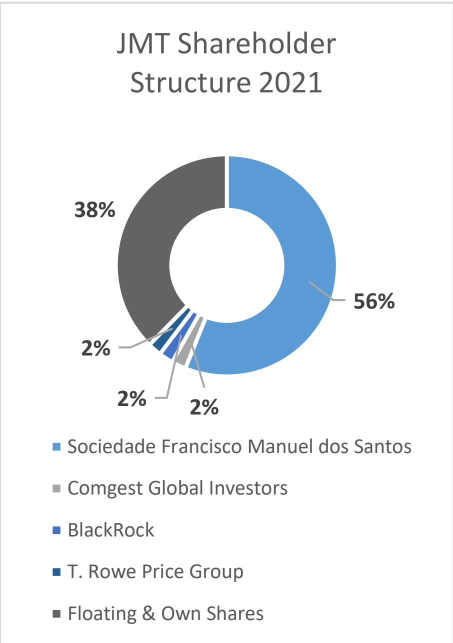

Figure 2 - Shareholder Structure 2021

Stock Performance

Jerónimo Martins has been publicly listed on Euronext Lisbon, Portugal’s largest stock exchange since 1989 (Jerónimo Martins 2022), and is also one of the few Portuguese

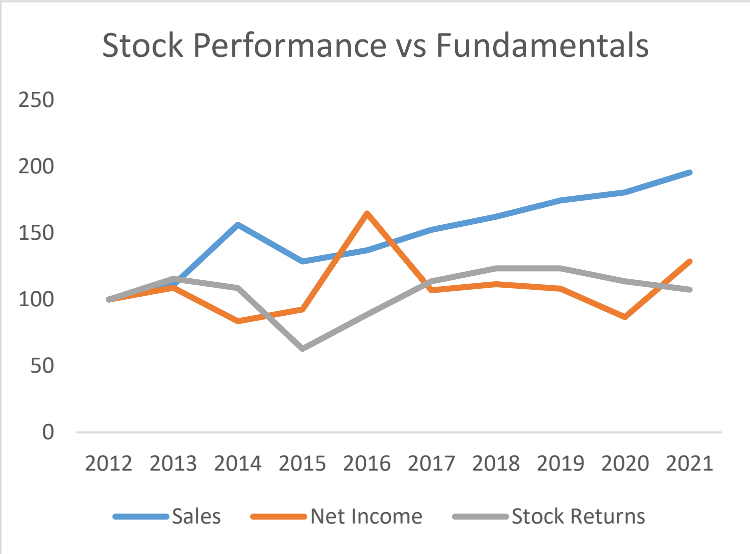

Figure 3 - Stock Performance vs Fundamentals

companies listed on the Euronext 100 index, comprising Europe's largest and most traded companies. The performance of Portuguese stocks is benchmarked against the Euronext 100, given that an investor may hold a diversified portfolio. At present, analysts cover the stock with a recommendation of strong buy (1), buy (3), hold (15), underperform (6), and sell (1). The average price target sits at €22,04, representing an almost 10% upside potential, representing capital gains only (Yahoo Finance).

The share price as of November 2022 is up 30% over the last five years with a compound annual return of over 5%. Performance has been largely driven by strong sales, earnings growth and dividend payments, which is usually seen positively by the market (see Figure 3). Revenues experienced a compound annual growth rate of 7,4% between 2016 and 2021 and increase from €16,4 billion to almost €21 billion respectively. Analysts expect sales for 2022 to be as high as €24,8 billion (Bloomberg). Although revenues are important for a company, the ultimate driver of stock returns is earnings (Lynch 2000), as we can see through Figure 3.Over the last 10 years, shares

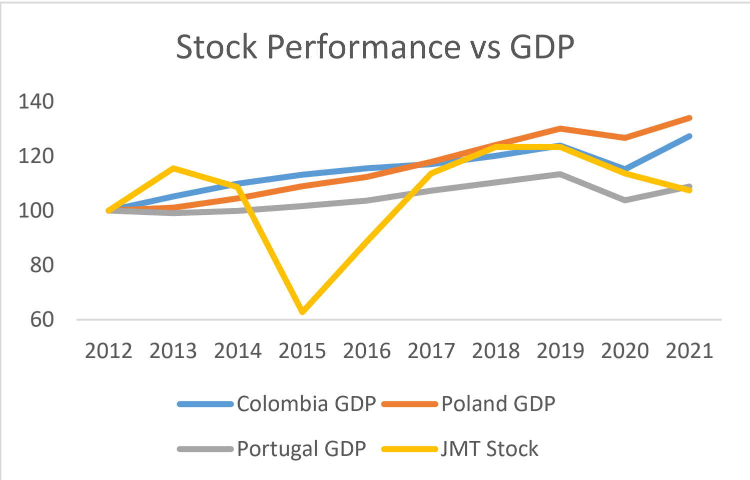

Figure 4 - Stock Performance vs GDP

had an average annual return of around 4% and outperformed the PSI-20 index, which average annual return is around 1% over the same time period. Figure 4 shows us JMT was correlated with the economies where its banners operate in, however it lagged in the last few years the Polish and Colombian economies, especially after the pandemic started.

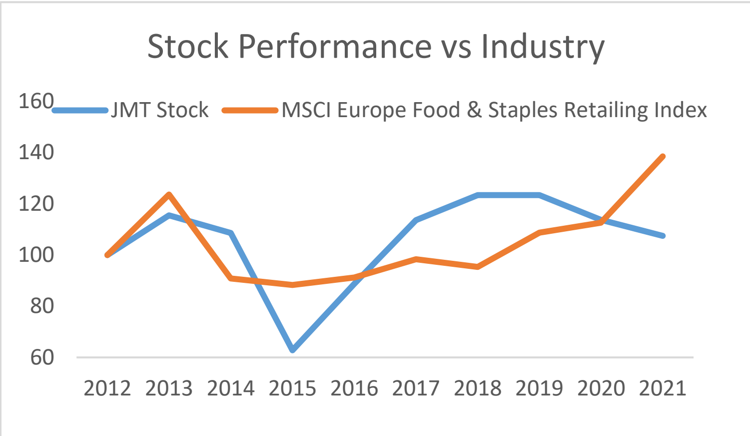

Figure 5 -6 Stock Performance vs Industry

We can observe that JMT's stock performance has been driven by systematic factors, such as its own industry (Figure 5), noting that the company has a more cyclical and volatile profile.

The performance of the stock was impacted by several key events, considered idiosyncratic. 2014 was a challenging year for Jerónimo Martins as the company was exposed to a weak macroeconomic environment and hit by food deflation in both Portugal and Poland and shares fell by more than 40%. In Portugal, the average 12-month rate of the Portuguese Consumer Price Index decreased to -0,3% in 2014 (Source: PDF Portugal statistic office). Overall, the stock in 2018 depreciated by as much as 36% following regulatory uncertainty around Jerónimo Martins' most important market. The Polish Solidarity party passed a law that forbids large supermarkets and most retail stores to open on Sundays, while small "mom and pop shops" are still allowed to open. This had a significant impact on Biedronka's operations, and the subsidiary reported a net income decrease for the year. Additionally, emerging markets such as Colombia were pressured by the threat of trade barriers under US President Donald J. Trump.

Compared to other industries, the Covid-19 pandemic did not have as big of an impact. The share price fell by only 5,8% in 2020. This can be explained by the non-cyclicality of the industry since people will continue to consume food even during economic downturns.

Following the pandemic and the reopening of the economy shares of Jerónimo Martins saw a more than 45% year-on-year increase in 2021.

2022 has been a turbulent year for shareholders and as of the beginning of the year, shares rose as much as 15% in August 2022 but fell back to a 5% return year to date because of geopolitical conflict, rising inflation, and high energy costs.

Jerónimo Martins has been paying quarterly dividends ever since its listing except for the years 2000 to 2004 when the company underwent a significant restructuring process. However, it must be noted that the payout has neither been constant or even continuously increased in the years after 2004. The payout varies significantly, depending on the financial performance, since the company distribution policy is 40-50% of ordinary consolidated net earnings. There are exceptions such as 2016 and 2017 when management decided to pay out 100% given cash generation abilities and the strength of the balance sheet at the time which is also reflected in the strong performance of the stock during these years.

Jerónimo Martins did not do any share buybacks and the number of outstanding shares has been consistently 628,4 million since 2009. Paying dividends may be beneficial for the average investor assuming that the company cannot generate returns above the cost of capital or required rate of return for the given investor. Especially for mature companies such as JMT, and as stated in the earnings call, management decided to pay a special dividend in 2022 given the lack of capital allocation options with reasonable returns on invested capital. Share buybacks can also be a form of compensating investors, as it decreases the float. In general, a company should not pay dividends if it has opportunities to grow at rates of return higher than the cost of capital.

Business Overview

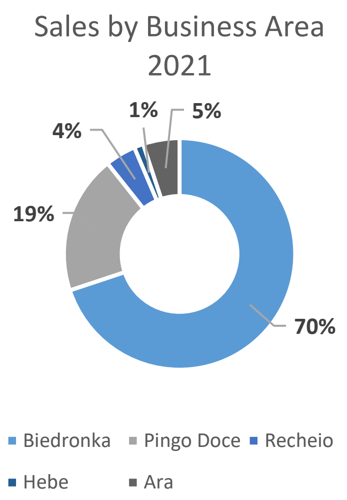

Figure 6 - Sales by Business Area 2021

Jerónimo Martins operates mainly food retail-focused banners in three countries – Poland, Portugal, and Colombia. 95% of sales come from food distribution, with the remaining revenue share generated in specialized retail.

Biedronka is the largest food retailer in Poland and operates a chain of discounter food stores with a primary focus on price competitiveness and proximity store locations. Most of the segment's sales are private label products (40%) followed by perishables (25%). Non-food sales make up 5% of revenues. The banner has 3,304 stores and records four million daily visits. Biedronka operates 17 distribution centers, each of which is responsible for serving nearly 200 Biedronka stores. The banner also performs online food sales through a partnership with Glovo.

Pingo Doce is one of the leading food retailers in Portugal and focuses on providing strongly differentiated fresh products (37% of the segment's total sales) and private label goods (36%). While Pingo Doce does not operate in the discounter food retail segment, the banner prioritizes a strong pricing position through both EDLP and promotions. The company also has restaurant areas in 35 of its stores which are supplied by two central kitchens.

Recheio is a B2B arm of JM in Portugal, running a market-leading network of cash & carry stores (food distribution). Private brand sales make up 26% of sales whereas perishables and non-food make up 18% and 5% of revenues. Recheio operates different private labels depending on the clients it serves, traditional, retail and HoReCa (hotel, restaurant and catering) customers. Because of exposure to HoReCa sector, Recheio is heavily impacted by the tourism sector in Portugal and therefore, earlier Covid-related restrictions.

Ara focuses on serving emerging middle-class segment customers in the geography, with a focus on price competitiveness. Private brand sales make up 40% of revenues while fresh products account for 16%.

Hebe operates in the health and beauty sector in Poland, selling perfumes, cosmetics and other products through both a network of 300 stores and a digital marketplace. Hebe is JM’s only banner that runs its own e-commerce operations.

Jerónimo Martin’s agricultural business involves the production of food products strategic to the Group’s other banners. The creation of this business was a strategic move to gain more control over the supply chain of certain items and to ensure compliance with sustainability goals, as well as to reduce dependency on third-party vendors.

Business Model

Fundamentally, Jerónimo Martins assumes the role of an intermediary between food product suppliers and individual/wholesale customers. This involves establishing and maintaining relationships with geographically scattered food suppliers from whom the goods are purchased. JM operates a network of distribution centers and a transportation fleet, allowing the products to then be delivered to retail store locations. Once transported, food and other products can be purchased by end customers. Notably, JM manages relationships with end customers through several avenues, including advertising, promotions, and loyalty programs. The main costs associated with JM’s business activities are thus cost of goods sold (COGS), labor, distribution, transportation, administration, store building/refurbishment, and other expenses.

JM's main revenue stream is B2C food sales, followed by B2B/B2C food/non-food sales. Revenue is derived as a markup above the cost of goods sold and other operating expenses. Other revenue sources include sales of beauty products, among others. Notably, JM also derives revenues from franchising its leading Biedronka and Pingo Doce banners to local companies and entrepreneurs for a franchising fee. The size and favorable competitive position of JM banners, especially the market leader food discounter, Biedronka, allows the company to finance working capital needs by leveraging its bargaining power with suppliers, leading to longer payment times. This contrasts with much lower average receivable periods (JM's customers usually pay at the time of purchase rather than on credit).

Operating as a discounter in Poland and Colombia, JMT focuses on maximizing the value proposition of its products by dint of quality and cost, meaning that they target supplying customers with essential goods at bargain prices. This implies a lower variety of products, confirmed by the higher number of SKUs in a supermarket chain vs a discounter such as Biedronka and Ara. As a result, it can offer a higher volume of the same products, which streamlines operations. More importantly, it translates into lower unit costs since the firm can leverage its bargaining power over suppliers because of constant larger purchases. Ultimately, it simplifies the supply chain and distribution process which leads to lower needs of human capital to fulfill customer support and store staffing, and therefore higher margins.

	% EBIT 2017-2020	% EBIT 2020	Average % growth 2017-2022	% Growth 2018-2020
Supermarket	2,50%	2,70%	-0,30%	3,60%
Discounter	3,50%	3,70%	1,80%	0,80%

Figure 7: Discounter vs Supermarket Margins

(Figure 7) (A-Insights 2022).

Fast inventory turnover is key to the success of discounters, as it leads to reduced working capital needs and lower storage costs. The sales mix also shows there is a small % of products that are being sold from brand labels. This allows discounters such as Biedronka to lower costs compared to supermarket chains and still maintain considerable quality to achieve a good value for money proposition (Shadbolt, How the discounters are beating the supermarkets 2015).

On the contrary, Portugal's banner PD acts a value-added intermediary between dispersed supplier companies and individual customers, acquiring, assembling a wide assortment of goods (higher number of SKUs per store), and selling them at low prices. The main value proposition comes from selling a big variety of readily available products under one roof, while maintaining strong pricing competition, both through EDLP and promotions. Suppliers, being aware of the big customer base at supermarkets, are willing to "pay" to have their products shelved at strategic locations, give volume discounts, and purchase sales information among others, which contribute to the revenue generation of big supermarket chains such as PD (and to some extent discounters). High requirements for retail floor space, logistics, infrastructure, and personnel costs result in high fixed costs. However, a high fixed cost base and large scale also increase bargaining power over suppliers and allow for aggressive negotiations with landlords and logistics suppliers to reduce overall expenditures. This plays a critical role in achieving economies of scale and applies especially to Pingo Doce and Recheio and, to a lower extent, Biedronka (Arndt and Olsen 1975).

The biggest variable cost is COGS which, given high supplier dependency, can be leveraged as volume order increases. Biedronka, considering its large scale and network of relationships with suppliers in Poland, is the primary beneficiary of this strategy. Moreover, a large portion of the budget is directed towards marketing in terms of promotions, to increase the number of shoppers, the share of their wallet, and the basket size.

Market Overview

Poland

Poland's food market is one of the largest and fastest growing in Europe, with a projected 8.9% CAGR from 2022 through 2026 while reaching €79bn in annual revenues (Statista 2022). The market grew at a 3% CAGR in US dollars from 2012 through 2021 and 6% CAGR as measured in PLN (Graph 1).

Graph 1 - Poland food & grocery retail market value: $ million, 2016-20. Source: Statista.

The grocery retail market in Poland is relatively saturated and dominated by large companies, with the combined market share of the 20 largest grocery retailers at nearly 75% (Standard Bank 2022). Five large grocery retail chains – Biedronka, Lidl, Kaufland, Carrefour and Auchan - have increased their combined market share from 37% in 2015 to 53% as of 2021 (Graph 2). The sector has seen rather significant industry consolidation among large chains. Biedronka is the largest retailer with an estimated 25% market share of the food retail market.

Graph 2 - Poland food & grocery retail market value: $ million, 2016-20. Source: Statista.

Poland's grocery retail market is segmented into hypermarkets, large supermarkets, proximity supermarkets, discounters, convenience stores, soft franchises, and traditional grocery retailers.

Descriptions of these retail store formats as defined by Roland Berger (2016) are provided in Table 1.

Store Format	Type	Typical Store Area	Number of SKUs	Products
Hypermarket	Mixed stores	Over 2,500 m^2	30,000-50,000	Grocery products (at least 50%)
Discounter	General grocery stores	Around 1,000 m^2	Limited	Mostly typical food products, predominantly private label
Large supermarket	Mixed stores	500-2,500 m^2	5,000-10,000	Food products (70%)
Proximity supermarket	General grocery stores	200-500 m^2	4,000-8,000	Food products (90%)
Convenience	Self-service format	60 m^2	Limited	Basic groceries
Soft franchise	Self-service format	50-300 m^2	Limited	Basic groceries
Traditional trade	Not organized	-	-	-

Table 1- Source: Roland Berger

Discounters, supermarkets and hypermarkets have captured a combined leading market share of 51% as of 2021 (Appendix A – Graph 1). Discounters have been steadily growing their market share – from 19% of the local grocery market in 2011 to over 30% currently (Biel 2021, Roland Berger 2016). This expansion came at the expense of traditional retailers as well as hypermarkets and supermarkets. Discounters' push into the leading segment position has been driven by Poles' increasing focus on prices and proximity. The increasing market share of discounters has also been supported by a general shift in key customer trends and preferences, including a busy lifestyle, high-frequency shopping and a new family model (i.e., more single households) (Roland Berger 2016).

While in the short and medium-term consumption growth in the whole grocery retail market is likely to normalize once inflationary pressures ease, over the long-term household disposable incomes in Poland are expected to continue increasing at a quite rapid pace (3.1% and 3.4% real GDP growth projected in 2024 and 2025 by the IMF). In addition, grocery retailers are expected to benefit from several factors. Firstly, it is estimated that over 1 million Ukrainians since the war began have remained in Poland, thus driving up the sales of all retailers. Secondly, the Polish government has implemented social safety net initiatives, such as the "Family 500+"

program which was established in 2017 and provides a monthly allowance of 500 PLN to families with children (Ministry of Family and Social Policy 2017). Moreover, the government has been steadily increasing the minimum wage which is expected to reach 3490 PLN in January 2023 which presents a 16% year-over-year increase (Berry Appleman & Leiden 2022). Importantly, from a tax perspective, the VAT rate for certain basic food items has recently been reduced to 0% to fight inflationary pressures (KPMG 2022), albeit this is likely only a temporary measure to support the disposable income of consumers.

Thirdly, there is further room to expand online grocery sales. While online sales have expanded for both essential and non-essential products (Galang et al. 2022), revenues from e-commerce channels currently make up only 1% of all FMCG sales in Poland (Barska & Wojciechowska-Solis 2020). In contrast, online sales totaled 14% of all retail sales in Poland in 2020 and, despite a decline to 10% in 2021, are expected to reach 20% by 2026 (International Trade Administration 2022). This suggests that the digitization trend, which accelerated during the pandemic, is likely to flow into the grocery retailing sector as more industry players will be looking to expand their omnichannel sales model. Online sales in other countries, though still insignificant compared to physical food sales, have captured a higher share of food market revenues. For reference, in neighboring Germany 2.7% of total food sales in 2021 have been done through online sales channel, increasing from 1.4% in 2019 (IFH Koln 2022). Finally, there is potential for regional expansion given still quite low levels of grocery retail penetration in provinces.

Discounters are likely to continue to benefit from several tailwinds. Firstly, Polish consumers are expected to continue focusing on prices and private label products. Data shows that price is important for 93% of Poles when shopping (PWC 2020). Moreover, recent research suggests that 68% of Poles shop in stores where the prices are lower while 37% of shoppers actively search for and buy discounted products (NielsenIQ 2022). Meanwhile, 23% of Poles have bought more private label products in the last 6 months (NielsenIQ 2022). This trend is particularly pronounced for spirits, snacks, and care products, among others.

Secondly, discounters might benefit from labor shortages in Poland which have been exacerbated after Russia's invasion of Ukraine (Rzhevkina, 2022). The discounter business model relies heavily on having less staff than companies operating in other FMCG market segments. Given rapid increases in minimum wages, discounters are likely to hold this competitive advantage to keep costs suppressed.

Industry headwinds worth mentioning are government initiatives aimed at the retail industry. Since 2018, the Polish government has implemented a law, allowing retail stores to be open on only a limited number of Sundays per year (Guardian 2018). Moreover, in 2021 the government introduced a retail sales tax with an emphasis on larger retailer chains (EY 2021). Thirdly, Poland has one of the higher VAT rates in the EU (23%), however, as mentioned, some food items are subject to tax exemptions.

Colombia

The Colombian Food and groceries market saw a strong expansion in recent years, registering a CAGR of 9.4% between 2016 and 2020 (Figure 8) and is expected to continue its strong upward trend with an anticipated CAGR of 5.6% for the period 2020 to 2025. This will drive the market to a value of $66.3bn.

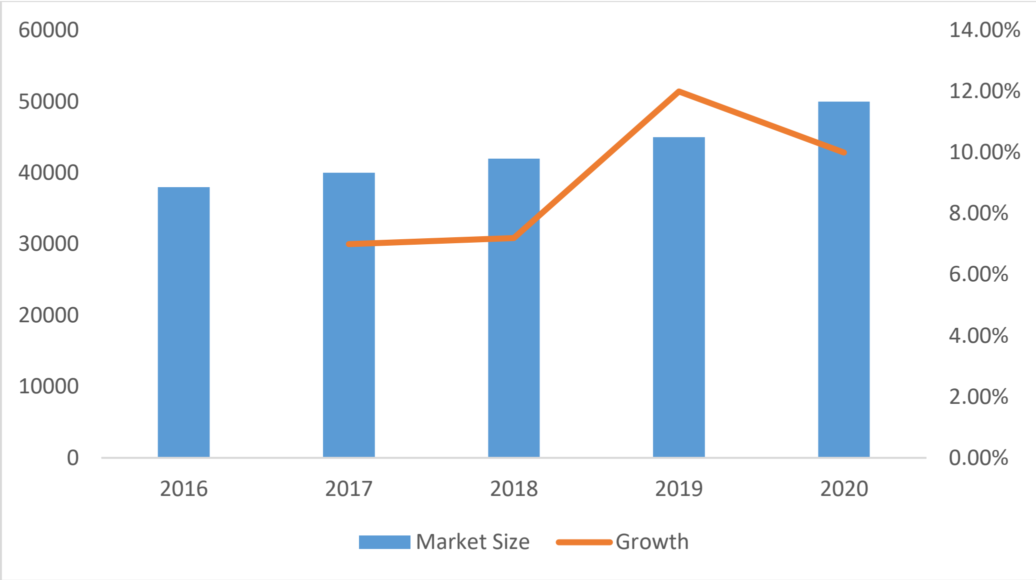

Figure 8: Colombian Food and Groceries Market

The deceleration of growth can be attributed to the opening of the economy which will lead consumers to shift consumption gains back to on-trade channels, such as the food service segment, even though it also acts as a complementary channel to the food and grocery market. In addition, lower real GDP growth in the coming years as a result of high inflationary forces and shocks to employment and disposable income is poised to damage growth in the food and grocery market (Statista 2022).

Competition in the market is intrinsically strong, despite the high concentration of players, especially in the supermarket industry (Figure 9).

This can be justified by the existence of economies of scale that promote the existence of a small number of players where profit margins are also meaningfully low. Since products are commoditized making consumers price-sensitive (having also low switching costs), companies are focused mainly on price competition. However, in Colombia competition can be considered

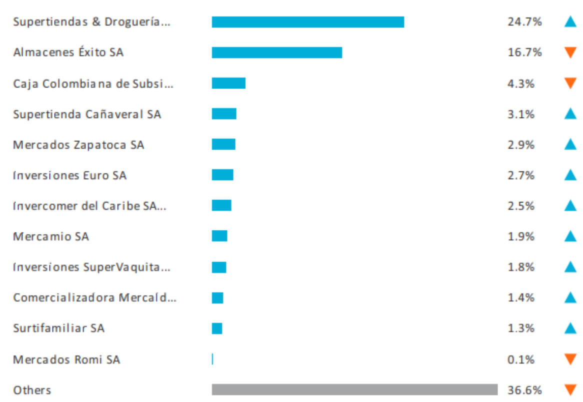

Figure 9 - % Share of Retail Value RSP excluding Sales Tax

fairly lower compared to developed countries, particularly in the traditional retail sector, as retailers tend to be smaller neighborhood stores with a regional focus. This means that regionality continues to be an important factor to supermarkets and other retailers, as many chains dominate in their respective areas.

Furthermore, there is a growing number of discounters, such as Ara, that attract consumers both through their value offer and regional specialization by establishing relationships with local suppliers. This has led to supermarket channels losing market share to other sales channels, prominently discounters. Subsequently, big players such as supermarket chains have changed their business models by incorporating a higher private label selection, which offers a higher value proposition, and by opening stores in residential areas, close to consumers' homes. Revenues are not concentrated on a few consumers, which means individual buyer power is somewhat limited. Even though consumer preferences dictate which products retailers sell in their stores, most food categories are considered a necessity and as such not prone to significant change caused by preferences or disruption from better products. The existence of incentive schemes, a practice used mostly by bigger players, can also limit buyer power and reduce consumer mobility.

Suppliers to the food and grocery industry vary significantly since there is an ample variety of products available. Although the bargaining power is highly impacted by the size of the supplier, large retailers maintain relationships with a big range of suppliers, letting them have the upper hand in negotiations (e.g., longer period of paying back suppliers), and leads to more stability against supply chain disruptions. On the contrary, there are big suppliers such as Unilever and Coca Cola, consumer packaged goods conglomerates that are oligopolies in their market segments with specialized products, meaning retailers don't have full bargaining power.

The biggest players in the market are comprised of Exito, Olímpica from Supertiendas & Droguerías Olímpica and Cencosud. Exito is a multi-format retailer which operates hypermarkets, supermarkets, and proximity stores under various banners, with a total of 537 stores in Colombia as of 2019. Therefore, Exito holds an advantage over competitors through its strong brand portfolio and a wide network of suppliers. Other important companies operating in the food and grocery market include Cencosud, which has a strong presence in Latin America and conducts various business units such as department stores, home improvement stores, and shopping centers.

Trends further impacting the industry come mainly from digitization, especially in the form of payment. Even though online payment penetration is still low vs developed economies, consumers are shifting from offline to online payment options such as Apple Pay or broadly speaking, using debit cards instead of cash. This trend has been accelerated substantially by the pandemic, which also led to a long-lasting effect of home delivery as opposed to onsite grocery shopping, although only a small percentage of consumers order groceries online.

Portugal

The Portuguese food & grocery retail market, on the other hand, registered a lower growth given the economic conjuncture of a developed country, with 1.8% in 2020, reaching a value of $335B. This results in a CAGR of 2.6% between 2016 and 2020 (Figure 10). In addition, the market is expected to have a low runway until 2025, with a 1.8% CAGR. Similar countries are following the same trend as Spain and Italy, with 1.7% and 0.6% CAGR until 2025.

Portugal food & grocery market value

Year	$ Million	% Growth
2016	30	
2017	31	3,0%
2018	32	3,0%
2019	33	2,5%
2020	33,5	1,8%
CAGR		2,6%

Figure 10 - Portugal Food and Grocery Market

This is in stark contrast to the less developed countries such as Poland and Colombia.

The market is dominated by a few players, the most prominent ones being JMT and Sonae, with Lidl and Intermarché being the third and fourth largest players respectively. Market share is therefore more concentrated among a small number of companies that benefit massively from economies of scale, which poses a high competition level and an entry barrier for new market entrants (Table 1 in Appendix C). They are able to employ pricing schemes that cannot be matched by smaller retailers and are present in most locations throughout the country. This is unlike Colombia where regional small discounters still have a significant share of the market. As a result, brand recognition and customer loyalty are what make this market extremely hard to disrupt.

The Portuguese retail market operates through different retail formats, such as supermarkets, hypermarkets, convenience and proximity stores, and specialized stores. Nonetheless, the market is highly concentrated in supermarkets and hypermarkets, which represent 70% of total food sales (Source: Table 2 in Appendix C).

The biggest competitor in Portugal, Sonae, through its ‘Continente’ and ‘Meu Super’ banners, has the biggest market share and the highest number of outlets, and together with JMT accounts for 50% of the food retail sales.

Lidl, being a discounter as opposed to a supermarket and hypermarket chain, has gained popularity and market share, especially during the pandemic, as consumers were striving for the best deals in terms of price, for which a discounter is known for having an edge (as Biedronka has in Poland). Even though market entry is theoretically hard, Mercadona, a Spanish retail group, has established itself in Portugal with 20 stores in 2020, with plans of expanding the store fleet to 150 – 200 over the next 5 years (MoveAveiro 2022). The French group, Monoprix, also announced its intention to enter the Portuguese market, which can lead to changes in dynamics within the food retail industry in the foreseeable future.

Looking at product selection, sales of retailers' private label products have increased in the past years, especially during the pandemic, due to their affordability vs corresponding manufacturers' brands. This strategy has been useful to compete against discounters such as Lidl and Aldi, who are known for their low prices and variety of high-quality products.

An important mover of the industry has been the reduction of environmental impact and in broader terms, sustainability. The agendas of retailers have changed by implementing several measures in their operations and products sold, which has been mainly caused by the rising demand for environmentally friendly products. The rise in demand for healthy food meant that retailers have been evolving their product range and are offering more options due to consumers' dietary concerns and needs.

During the pandemic, and the behavior of Portuguese consumers during recessions, the retail sector has seen a rise in the demand for cheaper food products, with consumers trying to limit their spending in response to the uncertainty posed looking for ways to save up by taking advantage of price promotions. A frothy economic environment in 2023 may lead to an extension of such behavior, and to tailwinds for discounters operating in the Portuguese food retail market as a result of their good price positionings for essential products.

Another important trend in the market is e-commerce, with online food sales rising by 44% compared to pre-pandemic levels. Prior to the pandemic, only consumers with higher buyer power engaged in online grocery shopping. However, e-commerce has become more popular among all age groups, and types of consumers.

Convenience and proximity stores also played a big role in the past years and had a somewhat lasting effect from the pandemic. Consumers opted more often for them as opposed to big supermarkets, which led JMT and Sonae to focus on opening more stores from their respective banners (Amanhecer for JMT, and Meu Super for Sonae).

Strategy and Competitive Positioning

Jerónimo Martins' broad strategy revolves around several key points, including targeting mass as opposed to niche markets and focusing on dominance in local markets rather than globally. This is indicated by JM having market leading positions in the mass B2C food market in both Poland and Portugal as well as B2B food sales in Portugal, with the corresponding banners' sole focus on these geographies. For instance, JM's largest banner Biedronka is a clear leader in the Polish grocery discounters with the highest market penetration rate (92%) compared to peers like Lidl (60%), Netto (32%), and Aldi (17%), with penetration rate defined as the percentage of respondents using services of given stores (Statista). Consumer loyalty surveys display the same trend, with Biedronka (30% of respondents) being ahead of the pack, including Lidl (13%) and Dino (11%) (Statista 2022).

JM's banners compete on product price, and location (proximity of stores for target customers). Price competitiveness is achieved through containing cost inflation which the company manages through economies of scale resulting from efficiencies given banners' market-leading store and distribution center networks. For instance, each of Biedronka's 17 distributions centers acts essentially as a company serving around 200 of the banner's stores in a proximate region. For comparison, closest competitor Lidl has a network of 11 distribution centers (Newmark Polska) while Carrefour operates five central warehouses (Carrefour 2022). Another important component of price competitiveness is price investments through special offers distribution and loyalty programs. Price investments taken by the company have the objective of maintaining and increasing market share, by having lower product price increases than food inflation, which also means sacrificing on lower margins in the short term to fully gain the consumers choice for the foreseeable future. Biedronka's products have been among the cheapest in the market on average - for reference, as of October 2022, Biedronka has been ranked as the third retail chain in Poland based on the cheapness of the average consumer basket - behind Auchan and Lidl but ahead of numerous other competitors (Poland Posts 2022). Meanwhile, proximity advantage is displayed by Biedronka's largest network of grocery retail stores in Poland with 3,304 stores (Jeronimo Martins 2022). This compares to 800 stores for Lidl, 230 for Kaufland and 1,043 for Carrefour as of 2021 (Statista 2022).

Moreover, JM competes on product differentiation in fresh products and private label goods. The Group generally provides a wide assortment of fresh products compared, moreover, proportion of private brand sales is high for two largest banners Biedronka (40%) and Pingo Doce (36%). Having said that, in the case of Biedronka, the proportion of own brand product sales in the company's revenues, while relatively high, has been below closest competitors Lidl - estimated at around 70% - and Aldi – estimated at 78% globally (Rennack 2018, Pricer 2022).

Four expansion vectors might potentially be likely for JM going forward. Firstly, since early 2020, JM's management has noted expansion interests in other geographies, such as Romania, however, expansion plans were eventually disrupted by the pandemic. Entering Romania would seem to be a strategic move for the banner given that the geography's sizable population (19m), favorable national legislation (e.g., one of the lowest VAT rates in the EU at 19%) and the food market being one of the fastest growing in the EU (5.6% CAGR in 2022-2027) (Statista). Romania has a retail customer base that is similar to that of Poland's, including high price sensitivity, as shown by a leading market share held by Lidl. In addition to value, consumers in Romania's food retail market tend to value proximity. Notably, the geography already has sizeable exposure to Polish food imports (14% of food imports as of 2020) (WITS 2021), with Romanian customers regarding Polish production as high quality.

Secondly, Biedronka and other banners seem to have a large online growth runway ahead given the small online sales share in the FMCG market (1%) and the aging of technologically savvy part of the population. Currently, Biedronka partners with Glovo on fast delivery of food and other goods from Biedronka's micro distribution centers. The service, however, is thus far limited to less than 50 cities in Poland. Recently, in Aug'22, the company launched an online shop for home products, suggesting further online sales expansion is clearly on the company's radar, with the possibility of Biedronka eventually introducing its own grocery delivery service (as opposed to Glovo). Notably, Biedronka might be able to capture a market-leading position in the online retail segment given the required investments in the online sales channel needed to maintain high service quality (i.e., customer service). Moreover, Hebe has already shown growth potential in the online segment, with more than 13% of sales coming from the online sales channel. The company has noted that Hebe – which serves a mass market in Poland - is exploring growth opportunities in other countries – this could potentially expand JM's online footprint.

Moreover, continuing expansion of Ara is likely to materially add to the company's topline in the upcoming years. Notably, Colombia seems to have highly favorable dynamics for the banner given more than 50% of the local food market is operated by non-organized retail. More specifically, Ara's target market is largely operated by expensive mom-and-pop stores. Notably, Ara has already reached breakeven on EBITDA level and is on track to turn profitable in the foreseeable future. While disruptions in the supply chain due to 2021 social protests remain, the business is expected to continue at a rapid growth pace. JM's management recently increased new store guidance for 2022 to 230-250 from the initially planned 118. This, coupled with the recent bankruptcy of a competitor Justo & Bueno, will allow Ara to improve sales density and gain scale in the country.

Macroeconomic and Geopolitical Overview

Macroeconomic Environment

The macroeconomic environment of 2022 has been a challenging one for businesses. Rising inflation, supply chain shortages, high energy prices, and geopolitical conflicts have put a toll on global economic growth. Especially food inflation is reaching new record highs worldwide. While grocery retailers can pass on rising prices for food to the consumer, they are not completely immune to the consequences of food inflation. Eventually, consumers will reduce their basket size and only end up buying the necessary items which will result in lower sales (trade down effect).

Jerónimo Martins operates in several markets and is exposed to country-specific macroeconomic conditions. The following section will analyze current key macroeconomic indicators for Poland, Portugal, and Colombia and point out their impact on business operations.

Poland

Poland is the most important market and contributed a lot to the growth of the group through Biedronka. The Republic of Poland is the seventh-largest nation by size on the European continent and has a population of almost 38 million citizens.

Economically, Poland is Europe's success story, and the country experienced almost unbroken GDP growth since 1992, except for 2020 when the economy decreased by 2,5% because of the Covid-19 pandemic. On average GDP grew by 3,6% annually over the last two decades (World Bank 2022). Economic growth is forecasted to slow down to 0,7% in 2023 and rebound to 2,6% in 2024 according to the latest macroeconomic forecast by the European Commission (European Commission 2022). The World Bank even estimates that the Polish economy has the potential to grow at 4% per annum between 2022 and 2030 under the condition of green and digital investments and labor reforms (World Bank Group 2022).

Prices of consumer goods and services set a fresh record at 17,9% in October compared to 9,4% in January 2022. This is the highest inflation rate since 1996. Food inflation for the same month was 22% and has been consistently above the overall inflation rate (Trading Economics

2022). Especially the war in Ukraine, sanctions on Russia, and a summer of harsh droughts in America have driven up food prices. It is unclear at the moment when the situation will ease, and the European Union estimates inflation in Poland to remain high with a decrease to 4,9% year-on-year change in 2024. Because of rising inflation, interest rates increased significantly in Poland, much faster compared to the Eurozone. As of September 2022, the Polish National Bank increased its reference rate to 6,75%.

Employment in Poland is high, and the unemployment rate is projected to drop to 2,7% in 2022 from 3,4% in 2021. Moreover, the European Commission expects that unemployment will fluctuate around the 3% mark in the coming years, which should strengthen consumer demand for quality food.

In terms of politics, the country is currently run by a conservative coalition led by the Law & Justice (PiS) party. As for economic policies, the party stands for a social market economy, and one change in particular impacted the economy of trading. As previously mentioned, the Polish government passed a law in 2018 that prohibits trading activities on Sundays which resulted in 21 fewer trading days for the banners Biedronka and Hebe. Such changes in legislation can have a significant impact on operations and the group had to allocate resources and time to change consumer behavior and make up for the loss of Sunday sales on mainly Friday, Saturday, or Monday (Jerónimo Martins 2018).

Overall, the macroeconomic indicators and prospects for Poland are good and should benefit Biedronka and the group as a whole in future years.

Portugal

In Portugal Jerónimo Martins serves around 10 million people through its leading banners Pingo Doce and Recheio. After rapid economic growth at the beginning of the century, the country was battered by a decade of near-economic stagnation in the aftermath of the great depression. Especially, the Portuguese financial crisis between 2010 and 2014 took a toll on the economic prosperity and GDP has yet to reach its all-time high of 2008.

Today, the economy is still recovering from the impact of the Covid-19 pandemic after strong GDP growth in 2021 and 2022, growth will slow down to 0,7% in 2023 due to fears of a recession in Europe and rise back to 1,7% in 2024 (European Commission 2022b).

Inflation has increased from 3,3% at the beginning of the year to over 10% in October. Rising food and energy prices have been the main drivers here as well and food inflation hit 16% in October. Ultimately, these boosted sales of the Portuguese banners but the company warned of an uncertain outlook for prices.

Portugal is part of the Eurozone and as such monetary policy is managed by the European Central Bank. In comparison to other countries and in particular the United States, the ECB has been a lot slower and more conservative when it comes to raising interest rates. As of November 2022, the interest rate for the Eurozone is 2% and Christine Lagarde warned that rate hikes could continue to rise if inflation does not decrease. Similarly, to the outlook for Poland, inflation is expected to cool off in 2024 and fall back to 2,9% according to the European Commission.

Unemployment has been a major concern throughout the 2010s and saw its peak at over 16% in 2013. Since then, the unemployment rate has fallen significantly in recent years mainly due to labor reforms, investments, training programs, and improvements in education levels. In the long-term employment should improve marginally in the coming years and projections by the European Commission show a fluctuation around the 6% mark for the coming years (European Commission 2022b).

Politically, the country is ruled by the Socialist party, which won the election in January 2022. The current Prime Minister António Costa has been in office since 2015 and his win of the absolute majority should ensure political stability in the coming years. More importantly, he launched Portugal’s recovery and resilience plan which includes reforms and investment into digital and climate.

Colombia

Colombia marks the most recent international expansion of the group. It is the fourth-largest country in South America with a population of over 51 million.

In contrast to Poland and Portugal’s stagnant growth rates, Colombia has experienced a rapid increase in its population over the past decades and during the last 10 years alone the population grew by more than 5 million. Generally, a growing population means more consumers and thus greater demand. This is especially the case for food retail and a key indicator for the growth prospects of Ara. Structurally, the country remains divided between prosperous urban regions and remote poverty-stricken parts, in the mountainous regions.

Despite being rattled in decades of internal conflict between various guerilla and militia groups, the country’s average annual economic growth has been 3,6% over the last 20 years. 2021 followed a strong rebound after the pandemic by over 10% (The World Bank 2022). Despite the significant economic growth at the beginning of the century, GDP per capita today is around 25% lower compared to its peak in 2013. Nevertheless, the projections show that the trend will reverse, leading to more people with increased purchasing power in the future.

Unemployment has always been a challenge for governments and the rate has fallen from around 14,3% in 2020 to 10,7% as of September 2022 (Trading Economics 2022a). Officially, the Colombian government targets an unemployment rate of under 10% and it is reasonable to assume that this will be achieved in 2023.

Compared to the 1970s, 1980s, and 1990s, inflation has been comparably low in the 2000s, fluctuating in an area of around 2-6%. However, the global surge in food and energy prices did not spare the country, and the annual inflation rate accelerated to more than 12% in October

2022. Food inflation for the same month was reported at more than twice as high at 27%. To combat this trend, Colombia's central bank decided to raise interest rates to 11% (Trading Economics 2022a) in October. The year prior, the interest rate stood at below 2%. The peak might have been reached and monetary policy has been tightened rapidly. However, it is expected that it will take until 2024 for the rate to return to the bank's long-term target of 3%. So far, the group's price investment strategy has been successful considering Ara's strong sales growth and as a low-cost food retailer, the banner is well-positioned to sustain the negative impacts of inflation.

Financial Analysis

This section of the report is divided into five sub-sections. By analyzing the performance of the company, as well as its liquidity position, returns, profitability, and credit profile, it aims to assess the quality of the business from a holistic standpoint. The methodology followed in this section differs from other sections, in the sense that it undertakes an analysis at the group level, as opposed to a subsidiary-level type of analysis. This is justified by the fact that some accounts at the subsidiary level cannot be understood in an isolated manner, thus rendering such a granular approach less insightful than a group-wide perspective.

In each sub-section, a comparison with selected peers is also pursued for the purpose of gathering better insights. The list of competitors comprises Carrefour – present in over 30 countries, spread across 4 continents, operating supermarkets, convenience stores, discount stores, among other models – Ahold Delhaize – present in seven European countries and in the US, operating retail and wholesale stores – and Casino Guichard-Perrachon – present in France and Latin America, operating hypermarkets, supermarkets, discount stores, convenience stores, among others –, corresponding to globally diversified companies with similar and equally-diversified business models. Though acknowledging no companies with such diverse subsidiaries have equal business models (that is, some of them are more biased towards discount, while others towards premium), which slightly weakens the conclusions, these are the closest peers in terms of size, business model and geography for Jerónimo Martins.

While the period chosen to undertake Jerónimo Martins' historical analysis at every level ranges from FY 2017 to LTM September 2022, the most recent information available for all peers is only as recent as LTM June 2022, and therefore this is the time reference point used when comparing the group to its peers.

Business Performance Analysis

Jerónimo Martins is a stable and profitable business (Appendix D – Table 1), but with generally low profit margins, linked to high fragmentation and fierce competition in the food retail industry. Revenue growth has accelerated recently from 3.5% in 2020 and 8.3% in 2021 to 15.3% over the LTM Sep-22 *vs* FY 2021, as the company vindicates its growth strategy in Poland and Colombia (with Biedronka and Ara growing at 19% and 60% YoY in Q3 2022, respectively), while taking advantage of food prices rising globally in the context of an inflationary macroeconomic backdrop only comparable to the 1970s, driven by expansionary monetary policy over the last years. Since March 2022, this setup has been exacerbated by the war between Russia and Ukraine, both among the largest global food exporters, with Russia also playing a key role in energy security, which has sent commodity prices to multi-year highs.

Even though the current geopolitical and macroeconomic scenario has been helpful for the company's top-line, the firm's commitment towards competitive pricing, especially in Poland, has meant that its ability to pass on high prices to consumers has been limited, which has impacted its gross margin in c. 70 bps, down to 21.2% over the LTM Sep-22 from a high of 21.9% in 2019 and 2020, thus equaling 2017 levels, when the business was substantially smaller and scale benefits were not as significant. This has been fully offset by slower-growing distribution and administrative costs, showcasing the management team's ability to streamline operations, as it tries to curb the effects of rising input costs. Despite the group's efforts to minimize inflation's bottom-line impact, lease rents are an increasing burden, having risen by 56% in September 2022 on an LTM basis *versus* FY 2021, which explains the c. 70 bps impact on operating margin, down to 1.2% compared to 1.9% nine months ago.

From a cash flow perspective, though less exuberant than in prior years, the group's performance remains strong, with a free cash flow after interest and taxes margin of 1.9%, which compares to 2.6% in 2019 and 2020, and 3.5% in 2021. 2019 had marked a great improvement from 2017 and 2018, which had mainly to do with better working capital management. Nonetheless, it should also be mentioned that the current margin of 1.9% is closer to a sustainable level than the higher margins in the past, as the firm has been underinvesting in its capital base for years, which can be attested by capital expenditures being well below reported depreciation and amortization from 2019 until 2021. As a matter of fact, capital expenditures as a percentage of depreciation and amortization have risen meaningfully over the last nine months on an LTM basis, from 78.4% in FY 2021 to 99.6% in September 2022.

Appendix D – Table 1 also allows one to spot some seasonality in the business, as there is usually a working capital inflow in the first quarter of the year which is more than offset by strong capital outflows in subsequent quarters. This is an industry-specific feature, as food retail chains usually make large payments to suppliers at the beginning of the year, after having built up inventory at the end of the previous year in order to meet stronger demand around Christmas time.

Speaking of industry, when compared to peers (Appendix D – Table 2), Jerónimo Martins stands out, as it outperforms the mean peer growth-wise in terms of revenue, EBITDA, and adjusted operating cash flow after interest and taxes before working capital. Even though working capital is not accounted for in any of the metrics at focus in the peer analysis for this specific sub-section, the group also outperforms peers in this regard, as it borrows heavily from suppliers, which contrasts with peers' relatively neutral working capital profile. Even though Jerónimo Martins does not compete directly with the companies under focus, this suggests that Jerónimo Martins benefits from a relatively better competitive positioning, working capital management and bargaining power against suppliers. This is somewhat expected considering its reliance on local supply chains, which are traditionally less populated by large, more powerful producers.

Liquidity Analysis

Jerónimo Martins is not a textbook example from a liquidity perspective (Appendix D – Table 3), as it does not meet the usual benchmarks for commonly tested liquidity ratios. As a matter of fact, the company's current ratio is only 0.56 – below the classic benchmark of 1 –, while the quick and cash ratios stand at meager 0.33 and 0.22, all of them relatively stable over time. Although at a first glance such figures might suggest a poor liquidity profile, a peer comparison makes it clear that these numbers are rather a result of sector-specific characteristics (Appendix D – Table 4), once again linked to working capital management. As a matter of fact, while food retail chains are usually paid upfront by customers, they do not pay suppliers on the spot. This allows them to finance their excess current liabilities – mostly consisting of trade payables – without needing to raise additional cash in the short term. The fact that (1) cash interest expenses are low and (2) the business has little financial leverage (more details below in Credit Analysis) gives one even greater assurance about Jerónimo Martins' adequate liquidity profile.

Return Analysis

The company has been delivering increasingly better returns on its capital employed and asset base (Appendix D – Table 5), with adjusted return on invested capital rising from 4.6% in 2017 to 13.3% in 2021, while return on equity has improved from 6% to 14.1% over the same period. This suggests that investments to grow the capital base are value incremental for the firm, at a time when those investments are decreasing as well. Additionally, the fact that return on equity has been consistently above return on invested capital suggests that the company's debt usage has ultimately been optimal and incremental to shareholders' value. Over the last twelve months, however, JM's high-return profile has been partially dented by cost inflation and higher capital investments, which has been impairing cash generation capabilities.

From an industry perspective (Appendix D – Table 6), Jerónimo Martins has been producing better returns than peers, which might be related to size and the presence in generally faster-growing markets. By looking at Jerónimo Martins historical returns evolution, the turning point in terms of profitability fundamentals looks indeed to be September 2022. Nevertheless, more data would be needed in order to make a definitive assertion in this regard, which is unavailable as of this report's writing date. Additionally, even though the peers chosen are generally as well-diversified as Jerónimo Martins, some might be more biased towards a certain model (e.g.: discount or premium), implying that their potential returns are different. This applies to other sub-sections of this analysis, especially margins.

Profitability Analysis

The company's profitability (Appendix D – Table 7) has not materially improved since 2019, with stable and relatively low margins compared to the average corporate company stemming from high industry fragmentation and competition. Gross margin has been around 21% for the past 3 years, with a 30 bps fall in the LTM September 2022 (21.2%) compared to FY 2021

(21.5%) explained by investments in pricing, especially in Poland, where the discount philosophy is more important for the group, as the firm attempts to retain market share in a highly inflationary environment by minimizing the pain for customers struggling with rising cost of living. Despite striving for increased operational discipline, the margin impact has been magnified by rising lease rental expenses, with EBITDA margin falling 100 bps over the same period. Finally, increasing capital investments have also been weighing on free cash flow, which has still remained positive, at around 1.9% margin relative to sales.

Compared to peers (Appendix D – Table 8), Jerónimo Martins has generally lower margins, but this is more than compensated by the fact that the company is generally more efficient at translating profits into actual cash, as shown by a higher free cash flow margin. It can also be argued that, by being relatively more biased towards a discount model than Carrefour, for example, would explain Jerónimo Martins' relatively lower margins, without that impacting absolute profitability.

Credit Analysis

From a credit standpoint (Appendix D – Table 9), there are no immediate concerns about Jerónimo Martins, as the company generally presents stable and low leverage over time, with all bank debt being covered by 5 years of free cash flow before working capital as of September 2022. It should be remarked that this corresponds to a stress scenario such as the one the firm is experiencing, which is linked to higher capital expenditure and margin impacts of cost inflation, hence increasing the robustness of the analysis. This allows one to take reasonable comfort from the company's ability to service its debt, especially considering that structural working capital inflows are not being accounted for in the analysis. Furthermore, the interest coverage ratio from a free cash flow perspective is high and stable at double-digits.

What is more important, unlike its peers, Jerónimo Martins holds no bond debt, which would be hard to refinance at attractive terms in the current market conditions, showing the company's ability to grow and generate cash without drawing undue amounts of leverage. This also means that there are no short-term refinancing risks for the group, while the impact of higher interest rates, which is afflicting peers such as Casino Guichard-Perrachon, is also limited, owing to low leverage. In general, the company is expected to continue relying on relationship banks for short-term liquidity needs, by resorting to commercial paper and other types of credit lines, which were all available but undrawn as of September 2022. The authors should remark that while acknowledging the merits of IFRS-16 in forcing companies which are heavily reliant on leases to bring them onto the balance sheet, little importance is assigned to leases from a debt perspective, as they are viewed more as an operating expense rather than raw debt. Leased stores are common in the food retail industry, as leases allow for more flexibility (there are usually more properties to lease than to buy), are tax deductible and allow to spread the cost of properties over the years instead of large, upfront costs when buying a property (Menlo Group 2022). Jerónimo Martins (rents are 2% of revenue) and the analyzed peers heavily rely on them. Speaking of peers, overall, compared to peers (Appendix D – Table 10), Jerónimo Martins has arguably the best fundamentals, with the lowest reliance on debt and the strongest interest coverage.

ESG

Jerónimo Martins most distinctive ESG aspect relates to the fact that it is the only Portuguese company in the country present in the Bloomberg Gender-Equality Index, which is detailed below. Additionally, it boasts the only maximum score of 'A' in CDP's climate change and water management programs, which contributes to the best CDP score across food retailers globally, among others. While companies tend to overstate their ESG commitments, these are key positive points to note, as they are objective metrics subject to independent assessment. On the negative side, the company is controlled by the Soares dos Santos family, potentially impairing much needed independence in decision-making, which, if addressed, could have overturned some bad decisions made in the past (more details are provided below).

Environmental

In 2019, the food industry accounted for 26% of global greenhouse gas (GHG) emissions alone (Source: Poore & Nemecek, 2019). As a company mainly positioned right at the end of the chain, Jerónimo Martins has increased responsibility to mitigate the harmful impacts of food distribution in world ecosystems, hence contributing to a better environment.

In this regard, Jerónimo Martins had initially set the objective of reducing its carbon footprint by at least 40% until 2023 compared to 2017 levels, which was accomplished in 2021, with a 48% reduction. The fact that Poland is the largest market for the company makes appropriate action within this jurisdiction key, and the reduction of GHG emitted through electricity consumption in the country was indeed the main reason why the group was able to meet its goal in 2021. On the other hand, efficient management of water and energy use is one of the cornerstones of the company's environmental policy, which required a €215mm investment in renewables, energy control and management systems, water savings systems, among others. This investment has been totally recovered in less than 5 years, owing to reduced water and energy consumption. Among plenty of other environmental initiatives, route optimization and the investment in more efficient transportation vehicles should also be mentioned, as these avoided more than 20,000 CO_2 emissions in 2021. In general, the company's increased investment in supply-chain optimization by focusing on renewable energy sources, developing products that are easier to store and transport, identifying alternative routes for products and local supply chains have helped the company to meet the defined environmental goals.

Social

Jerónimo Martins is one of the largest employers in Portugal and Poland, at the same time it is also part of the daily lives of every citizen that visits their stores regularly, which tells enough about the group's impact in the societies it is inserted in, hence why an adequate social policy both at the group and subsidiary level is important.

The group's social commitment highlights are two-fold – (1) ensuring local sourcing whenever possible to drive growth at the community level and privileging product quality, and (2) being a benchmark employer. On the first, the group sources approximately 89% of its food purchases from local suppliers – with a minimum target of 80% set by the group –, effectively supporting local communities and creating positive synergies with stakeholders. This is especially visible in Colombia through Ara, where 180 local suppliers account for more than 90% of total sales derived from private brand products. Regarding product quality, the recent nutritional reformulation of private brand and perishable products has prevented more than 1,000 tons of sugar, more than 100 tons of fats and c. 20 tons of salt from being consumed (Jerónimo Martins 2022). On the second, the gender pay ratio of 97.6% – warranting the group's inclusion in the Bloomberg Gender-Equality Index – is worth noting. More recently, Jerónimo Martins made a non-repayable contribution of PLN 1,000 to each of Biedronka's 1,800 Ukrainian employees. Additionally, each Pingo Doce employee will receive in December 2022 a €350 check to tackle inflation (Barbosa 2022). However, in September, workers went on a strike to claim better pay. All in all, while there are some positives, Jerónimo Martins can still improve on the Social front.

Governance

Even though the company has taken some steps to improve governance, by adopting, for instance, the Anglo-Saxon model of governance in 2007, there are some concerns regarding independence, which has led to some suboptimal decisions in the past (for example, the expansion to Brazil). As a matter of fact, c. 56% of Jerónimo Martins is controlled by Sociedade Francisco Manuel dos Santos, B.V. (ultimate parent), which in turn is controlled by the Soares dos Santos family. This may impair accountability and independence to some extent, which is a downside of family-owned companies.

Risks

Operational risks

Jerónimo Martins aims to provide healthier food solutions and products by complying with food safety standards and with audits along the entire logistics chain. There are two types of food removal, which address specific risks to the health and safety of consumers, whether in store or at distribution centers: recall (removal from sale of products with potential health risks) and withdrawal (removal from sale of products that do not pose a health risk). In either case, internal investigation mechanisms are triggered and, where necessary, also conducted with suppliers to identify the causes and aiming to implement the appropriate corrective measures to prevent food incidents. Nonetheless, this is a risk that is common to all retail companies and requires constant efforts to improve the supply chain to be mitigated. As the 2015 Walmart, Target and GNC scandal demonstrated, investors quickly lose confidence in a company after showing that the supply chain controls are not as rigid as claimed. Walmart, in this case lost 20% of its stock value in the year after the outrage.

In addition, the Polish and Colombian foreign exchange rates are a significant contributor to the company's pricing risk. JM purchases merchandise in foreign currency, mostly Zloty and US dollars for the Portuguese operations, and Euros and US dollars for the Polish and Colombia operations. Exposure is managed through hedging through loans denominated in the local currency. Hedging may also be achieved through swaps, forwards, and options when a natural hedge isn't possible.

Market and economic risks

Indirectly or directly, the Group's financial liabilities are indexed to a reference interest rate, exposing it to cash flow risk. A given portion of this risk is hedged through interest rate swaps, thus JM is also exposed to fair value risk. Exposure to interest rate risk is monitored continuously. In addition, to evaluate future interest costs based on forward rates, sensitivity tests to variations in the interest rate level are performed. The Group is essentially exposed to the interest rate curves of the Euro, the Zloty, and to the Colombian Peso.

Liquidity risk is managed by maintaining an adequate level of cash or cash equivalents, as well as by negotiating credit limits that not only ensure the regular development of the Group's activities, but that also ensure some flexibility to be able to absorb shocks unrelated to business activities. Treasury needs are managed based on short-term planning, executed daily, which derives from annual plans that are reviewed regularly during the year. JM does not have any material financing agreement with the suppliers in its supply chain, so no liability relating to financing obtained from suppliers is recognized.

The Group manages centrally its exposure to credit risk on bank deposits, short-term investments and derivatives contracted with financial institutions. The Financial Departments of the business units are responsible for the management of credit risk on its customers and other debtors. The financial institutions that the Group chooses to do business with are selected based on the ratings they receive from one of the independent benchmark rating agencies.

In 2022, the Zloty recorded an average annual exchange rate of 4.72 against the euro, a depreciation of 3.3% compared to 4.57 in 2021. This depreciation was due to multiple political and economic factors, the effects of which are expected to last throughout 2023. As a result, depreciation of the zloty is likely to continue, albeit amidst extreme uncertainty. The Colombian peso recorded an average annual exchange rate of 4657 against the euro, a

depreciation of 5.1% against the 4433 of 2021, explained by low reference interest rates, weaknesses in the Colombian economy and by an increase in the deficit and sovereign debt.
The depreciation of both zloty and peso impacted the company since both in 2020 and 2021 the entirety of the loans the company has undertaken are in local currency and considering that a part of it is used in Portugal, the cash position of the company was negatively affected by an estimated 4.6%.

Political risks

In Colombia, the leftist Gustavo Petro won the runoff of the presidential elections in June 2022, and he will be Colombia´s first left-wing president for a four-year term. The high public dissatisfaction with the incumbent right-wing government of Ivan Duque contributed to the runoff between the two anti-establishment candidates. More precisely, high inequality, poverty, as well as demands to improve security in cities and fight violence in rural areas, where illegal armed groups dedicated to drug trafficking operate. Petro advocates in favor of halting new oil projects due to environmental reasons (although he has promised to respect current contracts). He aims to increase fiscal revenues by 5% of GDP underpinned by dividend taxation, a more progressive system, lower evasion, and curbing benefits. He also defends the increase of taxes and royalties on extractive industries and charge large landowners for unproductive land.
In Poland, the ruling right-wing party Law and Justice (PiS) grip on power weakened after it lost control of the upper house (Senate) and failed to increase its absolute majority in the more powerful lower chamber (Sejm). The main risk for the Polish economy is linked to possible freezing of EU funds, over concerns namely for the independence of the judiciary power, and the potential impacts of the expected rise in inflation. These disagreements have already resulted in the Polish currency depreciation. Moreover, the migration crisis at the border between Poland and Belarus in late 2021 has also brought additional risks.
The current strife in neighboring Ukraine has brought challenges to the Polish market. Ukraine

is Poland's 5th largest trading partner of consumer-oriented agricultural goods; Russia and the U.S. are 15th and 18th respectively. The war has disrupted transportation of goods into Poland, affecting not only domestic consumption but also certain processing industries, creating a potential gap between consumer demand and supply in several sectors. The imposition of sanctions by the EU and Poland on Russia and Belarus and the disruption of trade has contributed to a sharp rise in inflation to 7.4 percent overall driven by energy/fuel and food prices climbing 27 percent and 12 percent respectively as of April 2022. It is estimated that the war has contributed around 2.4 percentage points to the inflation index.

The Portuguese economy was particularly affected by the pandemic, due to its dependence on the tourism sector. In 2022, the rebound in activity has been slowed down by the economic consequences of the war in Ukraine. The sharp rise in commodity prices led to a marked acceleration in inflation, which spread to all products and remained high throughout the year. As purchasing power declines, household consumption should slow sharply, as uncertainty will not encourage households to draw on savings built up during the pandemic (10.9% of gross disposable income at the end of 2021, compared with 7% before the crisis). The conflict will also have a major impact on businesses through, on the one hand, the worsening of supply difficulties, which had already hampered industrial activity in 2021, particularly in the important automotive sector (15% of goods exports in 2019) and, on the other, the surge in production costs, which will lead to a contraction in margins and profits. Therefore, in this adverse environment for business confidence, investment is likely to remain limited.

Other Risks

The Colombian Central Bank forecasts the economy to grow 4.7 percent in 2022, a figure that could be revised downward due to lower private consumption levels, growing inflation, and general uncertainty. The COVID-19 pandemic affected households' expenditures and purchasing habits. Although expenditures have rebounded and consumers are travelling and going out due to the economic recovery, some market trends will remain. Indeed, higher product price sensitivity has created an opportunity for in-house/store brands to gain popularity, as they tend to be cheaper than other labels. Nonetheless, e-commerce and delivery service adoption continue to be a challenge for the retail and food service sectors to adapt to changing consumer needs. Like regional peers, the arrival of COVID-19 disrupted about a quarter of employment in Colombia, with heterogeneous effects across sectors and demographic groups. Women, the young, and the less educated experienced the largest losses in employment and labor income, due in part to their concentration in lockdown-sensitive sectors and the greater prevalence of job informality among these groups. In Colombia, inflation rose significantly, reaching 12.2% in the year, after two years with high food inflation (around 7% on average), for exogenous reasons and also due to domestic issues in the country, in particular disruptions in the domestic supply chain as a result of the strikes and social protests that took place in May and June 2021. Besides rising food prices, general inflation will also be impacted by the price increases resulting from inflation of the previous year in categories such as rents, tolls, services, and healthcare.

Model Assumptions

The Model

The valuation is based on a sum-of-the-parts process, by combining the individual values of all of a company's business divisions to obtain the complete enterprise value of the group. Analyzing every geographical segment of the company individually allowed for a better and more wholesome valuation of the company next to enhanced forecasting accuracy.

Therefore, financial statements from 2017 to 2021 was gathered for the Portuguese, Polish and Colombian branches from the respective government institution except for Ara. Individual banners include Pingo Doce, Recheio, Biedronka, Hebe, and Ara. For Biedronka and Hebe, financial statements were only available combined under Jerónimo Martins Polska S.A. from the Polish Ministry of Justice. Separate statements for Pingo Doce and Recheio have been retrieved from the Portuguese Institute of Registries and Notary.

An integrated three-statement model was used just to project the balance sheet, income statement, and cash flow statement of each of the banners. The periodically was set to annually. This approach enables the testing of different assumptions as well as operating conditions and how this impact the financial performance of the company in the future.

WACC

The company operates by borrowing money directly in the local currency it requires funds, therefore each branch of JM will have its own foreign-capital WACC, where the foreign cash flows are discounted directly at this WACC and converted into domestic currency at the spot rate.

To computation of each WACC starts by taking the levered betas from the respective competitors, unlevering them and taking the median to use as the company's input for the cost of equity. To compute the market D/E value of each subsidiary, we apply the closest competitor's average D/E ratio, and assume it to be the company's target, given that the subsidiaries are not publicly traded and do not have a market value of equity. The cost of debt is derived through Damodaran's method of inferring a credit rating through the interest coverage ratio. Out of the credit rating we can assume a spread and adding it to the respective risk-free rate with bonds that are publicly traded and use it as a proxy.

Terminal growth rate

The terminal growth rates typically range between the historical inflation rate and the average GDP growth rate. (Corporate Finance Institute 2022). Given the low inflation rates in Europe, we decided to use the last 20 average years GDP growth for each country. Even though inflation is at decade highs all over the world at the moment, it is more realistic to use past GDP growth as proxy rather than a measure that has been historically low in the past decade, as a result of expansionary monetary policy conducted by the European Central Bank and the National Bank of Poland, as seen in the benchmark interest rate and quantitative easing programs.

Poland

All the assumptions taken regarding JM's business in Poland are specific to the current economic and political situation in this country. The tax rate has been assumed to be 19%, since the "CIT" is the only tax levied on corporate income. This figure is the standard for the country, according to PwC Worldwide Tax.

Revenue growth for Biedronka and Hebe combined is projected by breaking down the top line into the number of stores and sales per store. For a more granular analysis, sales per store are then further segmented into area per store and sales per m^2. Area per store is estimated to grow proportionally to the year-over-year change in area per store in 2021 adjusted for the number of new stores opened versus the number of store additions in 2021. Meanwhile, to estimate sales per m^2 for 2022-2025 a multivariate regression is used with sales per m^2 data for 2014-2021 as the dependent variable and inflation rate plus one and Poland's food market size as two independent variables. This approach allows to arrive at sales per m^2 which is then inputted into sales per store calculation.

Analysis of revenue growth suggests that sales growth is expected to remain elevated in 2022 (24.4% growth) and 2023 (13.9%) before starting to normalize from 2024 onwards. This is expected to be driven primarily by an aggressive growth in sales per m^2 in 2022 (18%) and 2023 (9%) on the back of elevated inflation rates in the country (14% projected by the IMF in both 2022 and 2023). Meanwhile, the number of stores is projected to keep growing in low single digits, albeit at a gradually slowing pace - from 4.3% in 2022 to 3.0% through 2027.

Notably, JM has noted that 2% has been the gap between Biedronka's product inflation and broader inflation in Poland, justifying the use of this assumption.

COGS has been assumed to overall remain stable, with a slight decrease in margins for 2022 and 2023 because of the guidelines reported by the company in the latest earnings call.

Materials and energy costs are expected to be a bit higher in 2022 and 2023 because of the current geopolitical situation in Ukraine and the impact it had on electricity prices especially in Europe. This, however, will not be impactful in the following years.

Previous other income was from related entities. However, between 2020 and 2021 other income from related entities dropped to zero with a remaining amount of PLN 650,822. This can be seen in the original income statements under position "G - V". For this reason, the assumption is that future other income from related entities is going to be zero.

Since Long-term Investments decreased consistently over the last five years and have not changed between 2020 and 2021 the assumption is, that there will be no change in the foreseeable future.

As previously mentioned, share capital and reserve capital have remained constant as there has been no share buyback in the past 4 years, and there is no indication of possible changes in the future.

Inventory and Accounts Payable and Receivable have been forecasted through the first-principles approach which involves forecasting individual current assets and current liabilities using various working capital ratios, such as receivable days, inventory days, and payable days. The receivable days ratio is often used to link forecast receivables to revenue. The first formula defines the accounts payable days ratio:

$$Accounts\ Payable\ Days = \frac{Accounts\ Payable}{Revenues} * 365$$

Once the ratio has been calculated, it can be assumed that it will remain constant in the following years and therefore extract the future value of accounts payable by reverting the formula. A similar approach can also be used for accounts receivable and inventory, by linking the former to sales, and the latter to COGS.

Depreciation and amortization follow the guidelines from the 2021 notes to the account for Jerónimo Martins Polska SA, hence will keep the same ratio between the two for the following years. The forecasted values have been calculated as an historic percentage of fixed and intangible assets.

Long-term liabilities have been forecasted by considering both the debt term structure of the company and the D/E ratio that the company has set as a target. Analysis of the debt term structure for Poland suggests that the company tends to rely more on long-term loans. Therefore, it has been assumed that for that there is no reason to change this trend in the upcoming years and that long-term liabilities will have a much larger weight than the short-term ones.

	Total	**<1 year**	**1-5 years**	**5+ years**
2021	214	8	141	65
2020	219	3	129	87
2019	303	84	220	-
2018	288	81	207	-
2017	234	8	226	-
2016	91	5	86	-

Table 2 - Debt Term Structure for JM Polska in Mn EUR

Moreover, in recent years, the company has been aiming at a target D/E ratio of around 20%, therefore this has been assumed to remain constant for the future years as well.

Capital Work in progress has been assumed to grow with fixed assets, as it has been historically so. Hence, this will continue for the upcoming years as well.

As another consequence of the reduction in margins, fixed assets will also slightly reduce from 2022 onwards, and will slowly reach pre-2020 levels later in the future.

Except for 2018 and 2019, partnerships results have been an almost negligible account, therefore there is no further indication that this could vary in the future.

Cash has been calculated by using the reported cash account for 2016, and from 2017 onwards, by considering the variation given by cash flow statement. With this method, cash can easily be forecasted for the following years since it reflects the changes in every other account given by every assumption that has been taken so far.

Capex has been calculated by differentiating between maintenance capex, which tends towards the value of depreciation, and expansion capex, using the cost per new store/total sale square meters every year. We take an average of the last years to project the cost operating m2 for each region the company operates in. This approach was chosen rather than using new stores as an input since we expect total square meters per store to increase on average.

Portugal

Top line growth for JM’s Pingo Doce banner is projected using the same methodology as for JM' business in Poland. A notable difference, however, is in the selection of variables for sales per m^2 estimation. While, similarly to regression for Poland’s business, Portugal’s food market size is employed as an independent variable, inflation rate is excluded from the estimation. Notably, inflation rate in Portugal stayed at historically low levels in 2014-2021 (above 1% only in 2017-2018 based on data from the IMF), suggesting that inclusion of inflation rate plus one would not add significant value to the regression output. Pingo Doce revenues are expected to grow at 7% in 2022 and 4% in 2023 before retracing back to a more normalized 3% growth from 2024 onwards. While in 2022 and 2023 revenue growth is expected to be driven by expanding sales per unit of area (5.2% and 1.9% growth in 2022 and 2023), number of stores growth (anticipated at 2-2.5%) is expected to be the main underlying factor behind sales expansion in 2024 and beyond.

Likewise, sales growth for Recheio is projected in the same manner. Given the segment’s exposure to HoReCa market, sales per m^2 growth is estimated with a univariate regression against Portugal’s accommodation and food service industry market size (as estimated by Statista). The analysis shows that Recheio’s revenues are predicted to expand at 4% in 2022 and peak at 9% in 2023 before starting to decline to a low single digit range.

COGS in both Portuguese subsidiaries follow the same approach as Biedronka, as management pointed out no differences in cost level strategy, meaning the company will continue its price investments game plan for every banner.

Supplies and Outsources Services also see a small jump (in % of revenues) derived from higher energy and transportation costs, expecting a reversion to the mean of the past 5 years in 2024.

All other accounts in the Income Statement are forecasted, taking the historical average, with revenue as the input lever, except for Debt Impairment Receivable, which uses Accounts Receivable, and interest expense, being computed as a % of Financial Debt.

As reported by PwC, "A flat CIT rate of 21% applies on the global amount of taxable income realised by companies resident for tax purposes in mainland Portugal.", therefore this standard tax rate has been applied for both Pingo Doce and Recheio. On top of this rate we added the Derrama Municipal and the Derrama Estadual tax, to account for extraordinary profits.

Colombia

Financial statements for Colombian companies are not publicly available, therefore it was not possible to retrieve the official statements presented to the local ministry and perform the same analysis as with the previous segments. The most satisfying option available was to resort to a reputable source of information as Refinitiv, which provided a simplified version of the company’s financial statements. The annual group reports were also critical to the retrieval of key data for the analysis performed.

Revenues for Ara are forecasted using the same approach as for JM's subsidiaries in Poland and Portugal (i.e., breaking down sales into the number of stores and sales per store, the latter of which is then further segmented into area per store and sales per m^2). To estimate sales per m^2, 2017-2021 sales per m^2 values are regressed against Colombia's food market size in COP (as calculated by Statista). The analysis reveals that Ara's sales per unit area are expected to grow at a record 42% pace in 2022 before displaying a much more normalized growth clip of 10-13% in 2023-2025. Likewise, growth in the number of stores, while still quite aggressive at 14-18% rate in 2023 and 2025, is expected to be significantly below the projected 31% growth in 2022. Both dynamics combined – growth of the number of stores and sales per m^2 – suggest that the segment is due to display an explosive 87% growth in 2022 before settling down at 27-33% in 2023-2025.

COGS and Other Operating Expenses use the same criteria and guidance from management, seeing improvement after 2023 and becoming incremental to margins.
The corporate income tax rate applicable to resident companies and PEs of nonresident companies is 35% for 2022 (increased from 31% for 2021).

Valuation

After having projected the financial statements for the three segments of the company until 2026, the valuation has been executed through a DCF model for each segment in order to obtain the enterprise value for every branch. The free cash flows expressed in the domestic currency of the banner were discounted at the respective foreign WACC. The present value of the sum of these cash flows was then converted at the spot exchange rate to the domestic currency of the group, resulting in an enterprise value of €17.2 billion. Subsequently, the net debt of each banner was converted to euros and subtracted from the enterprise value to derive the equity value of €16.7 billion. The minority interest in Pingo Doce is accounted for by taking the % of the company owned by Jerónimo Martins, equal to 51%, and adding it to the final enterprise value. Ultimately, the DCF valuation arrived at a share price of €27.42 representing a 33% upside compared to the current price of €21.24. A sensitivity analysis was used to investigate how changes in systematic outcomes, namely discount rate, and terminal growth rate would impact the valuation of both the individual banners as well as the group as a whole (Appendix E - Table 2). The rates for each banner were changed by the same percentage points to provide a consistent picture. The terminal growth was adjusted by +/- 0,015% and the WACC of each banner was changed by +/- 1%.

Next to a DCF, a relative valuation was conducted through a comparable company and a comparable transaction analysis. The comparable company analysis takes the trailering twelve months EV/Sales and EV/EBITDA multiples into account. The peer group consists of Jerónimo Martins's major competitors in Europe and South America (Appendix E - Table 1). The median was used to account for any potential outliers.

The EV/Sales and EV/EBITDA multiples used in the comparable transaction analysis are based on a Megermarkets' dataset and account for transactions that occurred within the last three years in the grocery sector of Europe and South America. Trading multiples of the comparable company analysis are lower compared to the precedent transaction which is to be expected since past transactions include a premium (Appendix E - Figure 1). To illustrate the different results, share price estimates for all conducted valuation methods have been graphically illustrated (Appendix E - Figure 2). It has to be noted that while the relative valuation method provides a quick proximation of a company's value, it does have significant implications due to its simplicity and it does not match the comprehensiveness of the DCF.

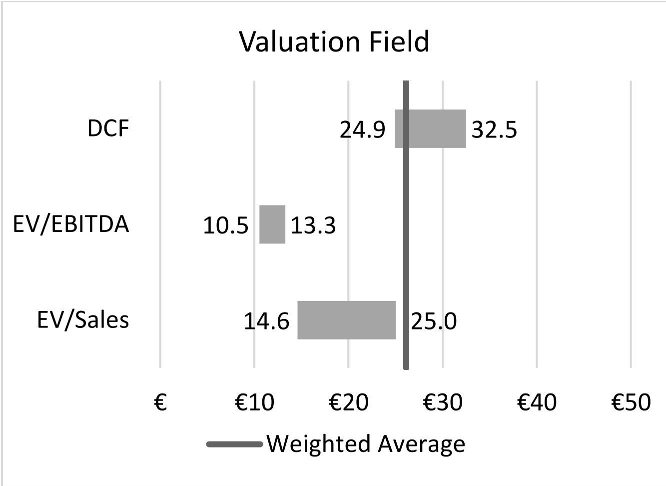

Figure 11 - Summary of valuation methods

The last step to arrive at the final share price estimate was the construction of a valuation field that included all the used methods. Based on the inputs of the sensitivity analysis the enterprise value of the DCF for JMT ranges from 20,4 billion in the best case to 15,6 billion in the worst case (Appendix E - Table 2). Enterprise values for the EV/Sales and EV/EBITDA multiples were calculated with the respective highest and lowest values of the peer group. Subsequently the share price for each method was derived and the result were plotted graphically (Figure 10). The final share price was estimated to be €26,13 based on a weighted average of the DCF (80%), EC/Sales (10%), and EV/EBITDA (10%) share prices.

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Glossary (Abbreviations)

B2B – Business-to-Business

B2C – Business-to-Consumer

CAGR – Compound annual growth rate

COGS – Cost of goods sold

EDLP – Everyday low price

HoReCa – Hotel, restaurant and catering

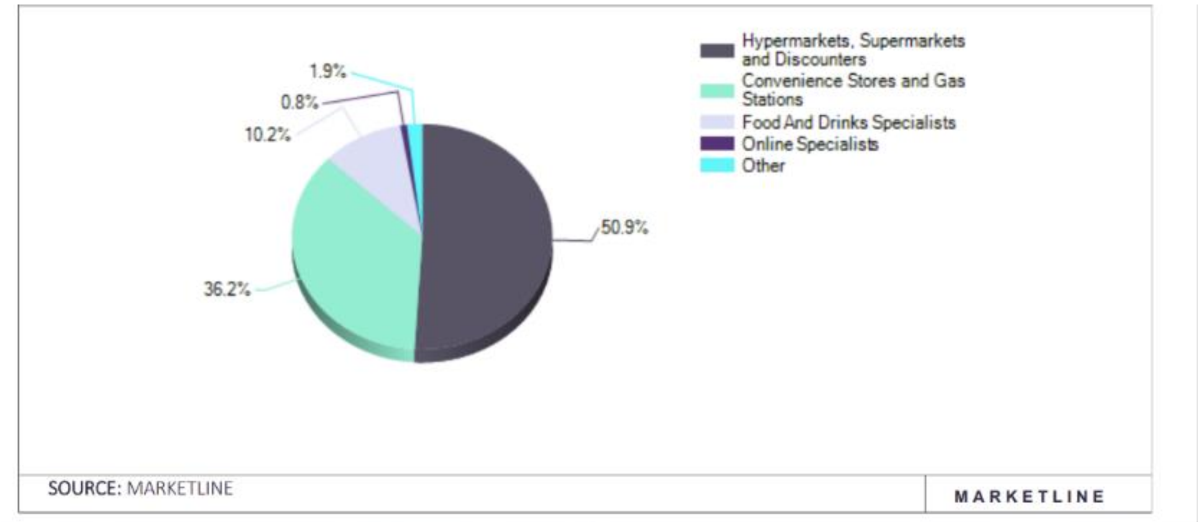
JM/JMT – Jerónimo Martins

LTM – Last Twelve Months

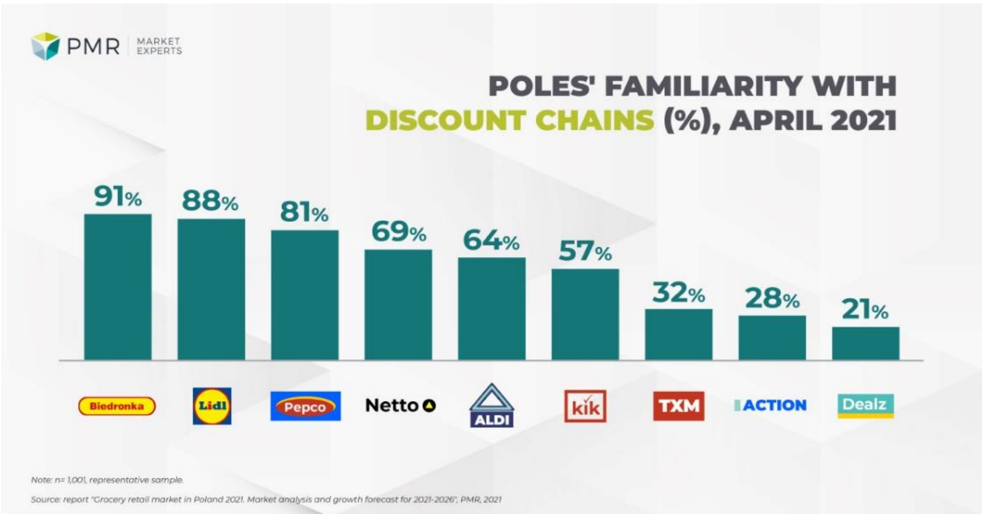
SKU – Stock keeping unit

Appendices

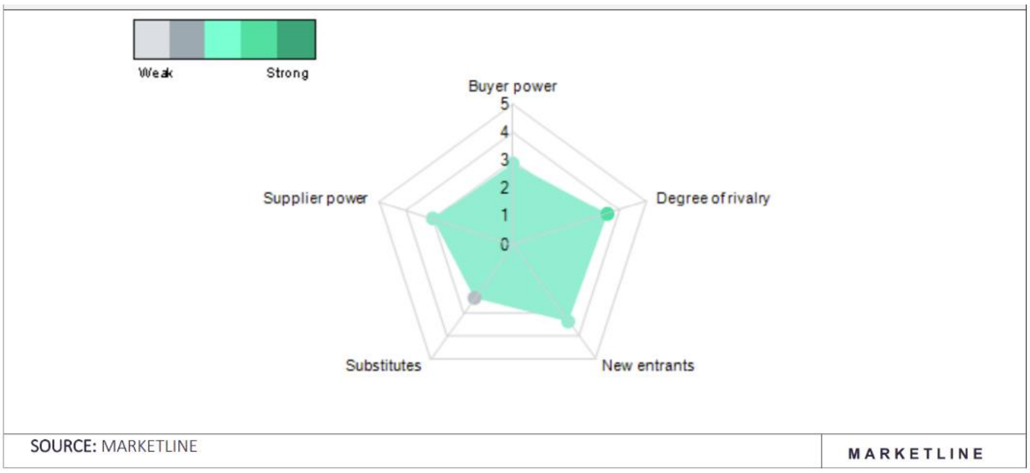
Appendix A



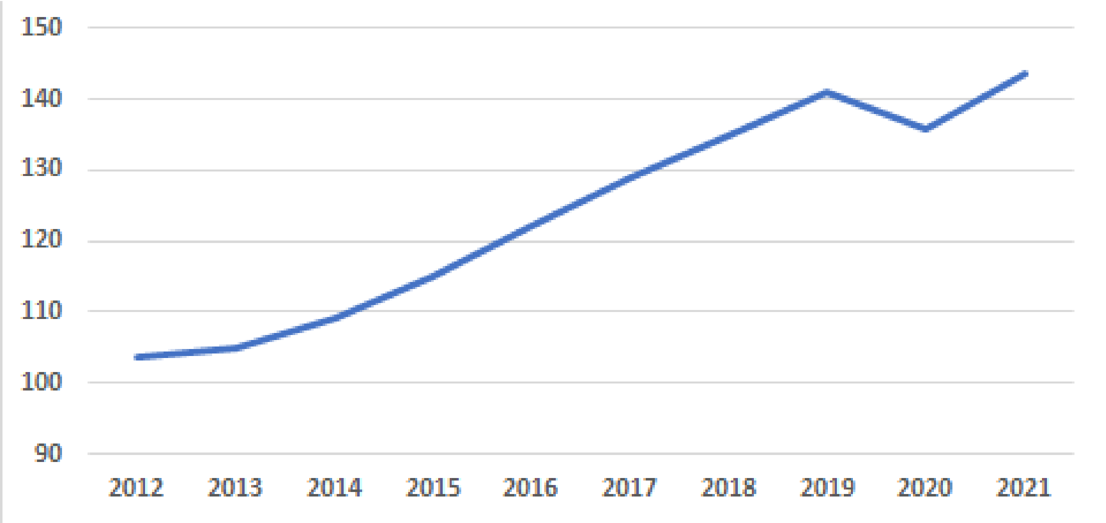
Graph 1 - Poland food & grocery retail market distribution: % share, by value, 2020



Graph 2 - Poles' familiarity with discount chains (%), April 2021



Graph 3 – Forces driving competition in the food & grocery retail market in Poland, 2020



Graph 4 – Total retail sales of goods in Poland (2010 is the baseline at 100)

SWOT Analysis	
Strengths	**Weaknesses**
Central Europe's most populous country with a domestic consumer market of nearly 38 million people.	U.S. products face high transportation costs compared to many European competitors.
Opportunities	**Threats**
Market niches exist for food ingredients, notably dried fruit, tree nuts, and functional ingredient products.	Foreign investments in food processing result in diverse and high-quality local products which compete with U.S. imports.

Data and Information Sources: Trade Data Monitor, Euromonitor
Contact: FAS Warsaw, Poland
AgWarsaw@usda.gov

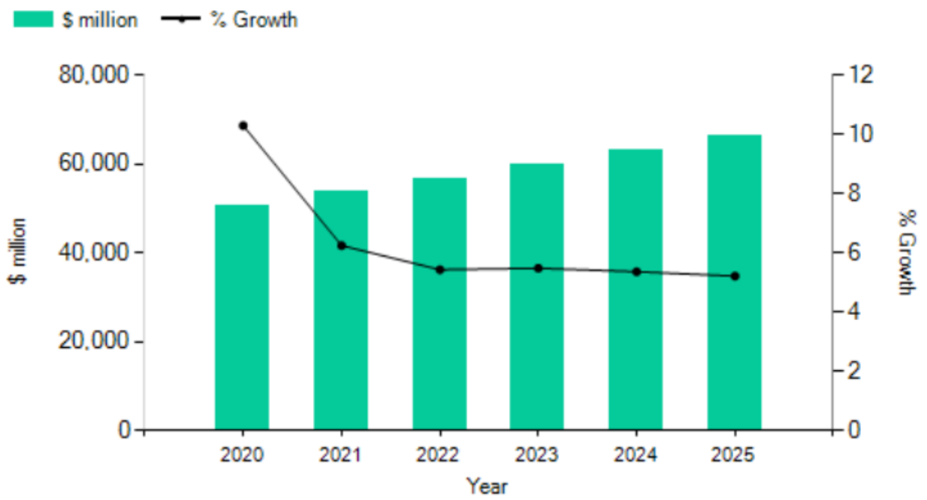
Table 1 – Poland food & grocery retail market overview

Appendix B

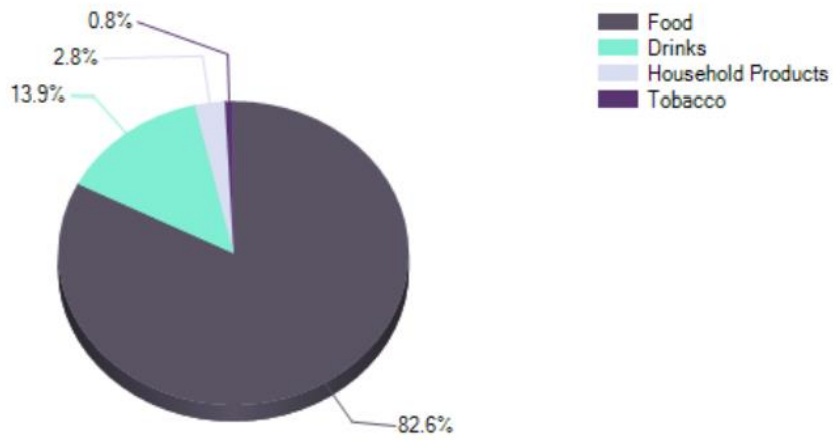
No.	Operator's Name	Store Name/Main Product	Country of Origin/Ownership
1	Jeronimo Martins	Biedronka	Portugal
2	Schwarz-Gruppe	Lidl and Kaufland	Germany
3	Eurocash	ABC, IGA, Delikatesy Centrum	Poland
4	Lewiatan	Lewiatan	Poland
5	Zabka	Zabka	CVC Capital Partners
6	Dino	Dino	Poland
7	Auchan	Auchan	France
8	Rossman	Rossman	Germany
9	Carrefour	Carrefour	France
10	PSH Nasz Sklep	Nasz Sklep	Poland

Source: Euromonitor

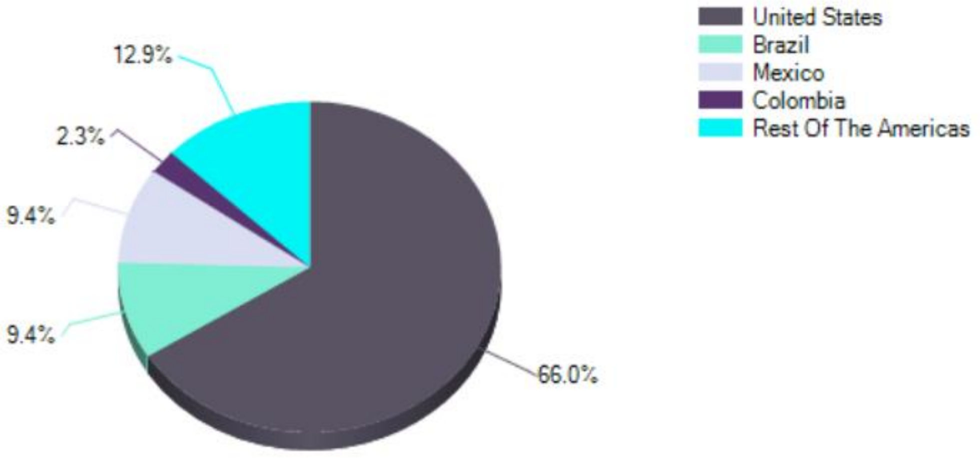
Table 1 – Top 10 retailers on the Polish Market in 2021



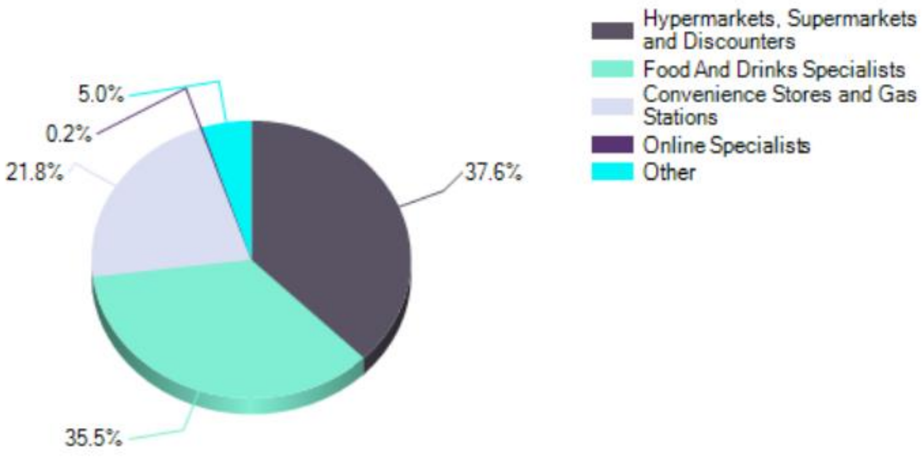
Graph 1 – Colombia food & grocery retail market value forecast: $ million, 2020-25
Source: MarketLine



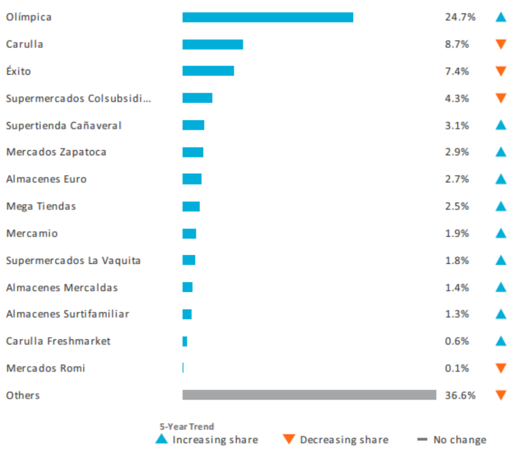
Graph 2 – Colombia food & grocery retail market category segmentation: % share, by value, 2020
Source: MarketLine



Graph 3 – Colombia food & grocery retail market geography segmentation: % share, by value, 2020
Source: MarketLine



Graph 3 - Colombia food & grocery retail market distribution: % share, by value, 2020
Source: MarketLine



Graph 5 - Brand shares of supermarkets - Retail Value RSP - 2021

Appendix C

Groups	Market share (value)[8]	Number of outlets	Retail format*	Main brands
SONAE	26.8 %	± 567 [9]	Hypermarkets Supermarkets Proximity stores E-commerce	Continente Meu super
Jerónimo Martins	22.9 %	± 528[10]	Hypermarkets (not representative) Supermarkets Proximity stores E-commerce (partnership with Mercadão)	Pingo doce Recheio Amanhecer
LIDL	11.3 %	± 245 [11]	Supermarkets Proximity stores	Lidl
Intermarché	8.8 %	± 250 [12]	Supermarkets Proximity stores E-commerce	Intermarché

Table 1 - Large food & grocery retail companies comparison

Channel	% Share
Hypermarkets, Supermarkets and Discounters	50.9%
Convenience Stores and Gas Stations	33.2%
Food And Drinks Specialists	7.8%
Online Specialists	0.5%
Other	7.6%
Total	100%

SOURCE: MARKETLINE — MARKETLINE

Table 1 - Portugal food & grocery retail market distribution: % share, by value, 2020

Appendix D

Performance Analysis	Jerónimo Martins	Mean	Carrefour	Ahold Delhaize	Casino Guichard-Perrachon
LTM Revenue Growth vs. FY 2021	9.5%	**5.6%**	6.3%	5.7%	4.7%
LTM Revenue	22,870		77,550	79,911	31,972
FY 2021 Revenue	20,889		72,958	75,601	30,549
LTM EBITDA Growth vs. FY 2021	10.4%	**1.4%**	2.2%	3.0%	-0.8%
LTM EBITDA	1,255		3,555	4,910	1,888
FY 2021 EBITDA	1,137		3,480	4,766	1,904
LTM Adjusted Pre-WC Operating Cash Flow After Interest & Taxes Growth vs. FY 2021	12.9%	**-3.3%**	0.6%	4.2%	-14.9%
LTM Adjusted Pre-WC Operating Cash Flow After Interest & Taxes	1,062		2,901	3,854	824
FY 2021 Adjusted Pre-WC Operating Cash Flow After Interest & Taxes	941		2,883	3,697	968

Table 1 - Jerónimo Martins, SGPS, S.A. Peer Analysis - As of H1 2022 (EUR mm)

Jerónimo Martins, SGPS, S.A.	FYE					QE							LTM
Business Performance Analysis (EUR mm)	2017	2018	2019	2020	2021	mar-21	giu-21	set-21	dic-21	mar-22	giu-22	set-22	set-22
Revenue	**16.276**	**17.337**	**18.638**	**19.294**	**20.889**	**4.786**	**5.116**	**5.304**	**5.683**	**5.513**	**6.370**	**6.509**	**24.075**
% Growth		*6,5%*	*7,5%*	*3,5%*	*8,3%*					*15,2%*	*24,5%*	*22,7%*	*15,3%*
(-) Cost of Sales	12.818	13.577	14.563	15.067	16.392	3.757	4.012	4.148	4.475	4.329	5.047	5.129	18.980
% Sales			*78,1%*	*78,1%*	*78,5%*	*78,5%*	*78,4%*	*78,2%*	*78,7%*	*78,5%*	*79,2%*	*78,8%*	*78,8%*
Gross Profit	**3.458**	**3.760**	**4.076**	**4.227**	**4.497**	**1.029**	**1.104**	**1.156**	**1.208**	**1.184**	**1.323**	**1.380**	**5.095**
% Margin	*21,2%*	*21,7%*	*21,9%*	*21,9%*	*21,5%*	*21,5%*	*21,6%*	*21,8%*	*21,3%*	*21,5%*	*20,8%*	*21,2%*	*21,2%*
(-) Distribution Costs & D&A	2.606	2.874	3.031	3.203	3.306	803	814	825	864	902	941	981	3.688
% Sales	*16,0%*	*16,6%*	*16,3%*	*16,6%*	*15,8%*	*16,8%*	*15,9%*	*15,6%*	*15,2%*	*16,4%*	*14,8%*	*15,1%*	*15,3%*
(-) Administrative Costs	261	289	322	334	351	89	84	87	91	101	97	98	387
% Sales	*1,6%*	*1,7%*	*1,7%*	*1,7%*	*1,7%*	*1,9%*	*1,6%*	*1,6%*	*1,6%*	*1,8%*	*1,5%*	*1,5%*	*1,6%*
(-) Other Operating Expenses/(Revenue)	(14)	(9)	16	50	34	3	3	2	26	13	13	31	83
% Sales	*-0,1%*	*-0,1%*	*0,1%*	*0,3%*	*0,2%*	*0,1%*	*0,1%*	*0,0%*	*0,5%*	*0,2%*	*0,2%*	*0,5%*	*0,3%*
(-) Lease Rents	360	390	397	401	416	102	107	103	104	108	111	328	651
% Sales	*2,2%*	*2,3%*	*2,1%*	*2,1%*	*2,0%*	*2,1%*	*2,1%*	*1,9%*	*1,8%*	*2,0%*	*1,7%*	*5,0%*	*2,7%*
Operating Profit	**246**	**215**	**309**	**238**	**390**	**32**	**96**	**139**	**123**	**60**	**161**	**(58)**	**286**
% Margin	*1,5%*	*1,2%*	*1,7%*	*1,2%*	*1,9%*	*0,7%*	*1,9%*	*2,6%*	*2,2%*	*1,1%*	*2,5%*	*-0,9%*	*1,2%*
(-) Lease Rents	360	390	397	401	416	102	107	103	104	108	111	328	651
% Sales	*2,2%*	*2,3%*	*2,1%*	*2,1%*	*2,0%*	*2,1%*	*2,1%*	*1,9%*	*1,8%*	*2,0%*	*1,7%*	*5,0%*	*2,7%*
(+) Depreciation & Amortization	690	754	715	734	745	185	186	185	189	190	195	196	770
% Sales	*4,2%*	*4,3%*	*3,8%*	*3,8%*	*3,6%*	*3,9%*	*3,6%*	*3,5%*	*3,3%*	*3,4%*	*3,1%*	*3,0%*	*3,2%*
Group Unadjusted EBITDAR	**1.296**	**1.359**	**1.421**	**1.373**	**1.551**	**319**	**389**	**427**	**416**	**358**	**467**	**466**	**1.707**
% Margin	*8,0%*	*7,8%*	*7,6%*	*7,1%*	*7,4%*	*6,7%*	*7,6%*	*8,1%*	*7,3%*	*6,5%*	*7,3%*	*7,2%*	*7,1%*
(+) Adjustments	(14)	(9)	16	50	34	3	3	2	26	13	13	31	83
% Group Unadjusted EBITDAR	*-1,1%*	*-0,7%*	*1,1%*	*3,7%*	*2,2%*	*0,9%*	*0,8%*	*0,5%*	*6,3%*	*3,6%*	*2,8%*	*6,7%*	*4,9%*
Group Adjusted EBITDAR	**1.282**	**1.350**	**1.437**	**1.423**	**1.585**	**322**	**392**	**429**	**442**	**371**	**480**	**497**	**1.790**
% Margin	*7,9%*	*7,8%*	*7,7%*	*7,4%*	*7,6%*	*6,7%*	*7,7%*	*8,1%*	*7,8%*	*6,7%*	*7,5%*	*7,6%*	*7,4%*
(-) Undue Adjustments	(7)	(6)	11	35	32	2	2	2	26	3	10	31	70
% Adjustments	*51,0%*	*62,0%*	*69,5%*	*70,1%*	*94,1%*	*66,7%*	*66,7%*	*103,0%*	*99,8%*	*23,1%*	*76,9%*	*100,0%*	*84,3%*
Team Adjusted EBITDAR	**1.289**	**1.356**	**1.426**	**1.388**	**1.553**	**320**	**390**	**427**	**416**	**368**	**470**	**466**	**1.720**
% Margin	*7,9%*	*7,8%*	*7,7%*	*7,2%*	*7,4%*	*6,7%*	*7,6%*	*8,1%*	*7,3%*	*6,7%*	*7,4%*	*7,2%*	*7,1%*
(-) Lease Rents	360	390	397	401	416	102	107	103	104	108	111	328	651
% Sales	*2,2%*	*2,3%*	*2,1%*	*2,1%*	*2,0%*	*2,1%*	*2,1%*	*1,9%*	*1,8%*	*2,0%*	*1,7%*	*5,0%*	*2,7%*
Team Adjusted EBITDA	**929**	**966**	**1.029**	**987**	**1.137**	**218**	**283**	**324**	**312**	**260**	**359**	**138**	**1.069**
% Margin	*5,7%*	*5,6%*	*5,5%*	*5,1%*	*5,4%*	*4,6%*	*5,5%*	*6,1%*	*5,5%*	*4,7%*	*5,6%*	*2,1%*	*4,4%*
(-) Remaining Adjustments	(4)	(3)	7	10	(2)	0	(1)	0	1	8	3	0	12
Cash EBITDA	**933**	**969**	**1.023**	**976**	**1.139**	**218**	**284**	**324**	**311**	**252**	**356**	**138**	**1.057**
% Margin	*5,7%*	*5,6%*	*5,5%*	*5,1%*	*5,5%*	*4,6%*	*5,6%*	*6,1%*	*5,5%*	*4,6%*	*5,6%*	*2,1%*	*4,4%*
(-) CapEx	649	720	576	514	584	113	121	176	174	188	186	219	767
% D&A	*93,9%*	*95,5%*	*80,5%*	*70,0%*	*78,4%*	*61,1%*	*65,1%*	*95,1%*	*92,1%*	*98,9%*	*95,4%*	*111,7%*	*99,6%*
(-) Working Capital Investment	(170)	(68)	(219)	(245)	(376)	86	(33)	(150)	(279)	219	(224)	(95)	(379)
% Sales	*-1,0%*	*-0,4%*	*-1,2%*	*-1,3%*	*-1,8%*	*1,8%*	*-0,6%*	*-2,8%*	*-4,9%*	*4,0%*	*-3,5%*	*-1,5%*	*-1,6%*
(-) Cash Taxes	160	148	155	174	174	36	74	39	25	39	67	51	182
(-) Cash Interest	0	26	33	28	22	3	8	3	8	3	9	5	25
Free Cash Flow After Interest & Taxes	**294**	**143**	**479**	**506**	**735**	**(20)**	**114**	**256**	**383**	**(197)**	**318**	**(42)**	**462**
% Margin	*1,8%*	*0,8%*	*2,6%*	*2,6%*	*3,5%*	*-0,4%*	*2,2%*	*4,8%*	*6,7%*	*-3,6%*	*5,0%*	*-0,6%*	*1,9%*
% Growth			*233,6%*	*5,6%*	*45,3%*					*nm*	*178,9%*	*nm*	

Table 2 - Jerónimo Martins, SGPS, S.A. Business Performance Analysis (EUR mm)

	FYE					LTM		
	2017	2018	2019	2020	2021	Mar-22	Jun-22	Sep-22
Current Ratio	0,48	0,47	0,48	0,51	0,58	0,58	0,53	0,56
Current Assets	1.922	1.961	2.410	2.434	3.112	3.016	2.946	3.185
% Growth		*2,1%*	*22,9%*	*1,0%*	*27,8%*	*-3,1%*	*-2,3%*	*8,1%*
Current Liabilities	4.023	4.187	5.046	4.741	5.325	5.210	5.532	5.679
% Growth		*4,1%*	*20,5%*	*-6,0%*	*12,3%*	*-2,2%*	*6,2%*	*2,7%*
Quick Ratio	0,27	0,24	0,27	0,31	0,38	0,36	0,30	0,33
Current Assets	1.922	1.961	2.410	2.434	3.112	3.016	2.946	3.185
% Growth		*2,1%*	*22,9%*	*1,0%*	*27,8%*	*-3,1%*	*-2,3%*	*8,1%*
Inventories	842	971	1.039	974	1.108	1.145	1.281	1.339
% Growth		*15,3%*	*7,0%*	*-6,2%*	*13,8%*	*3,3%*	*11,9%*	*4,5%*
Current Liabilities	4.023	4.187	5.046	4.741	5.325	5.210	5.532	5.679
% Growth		*4,1%*	*20,5%*	*-6,0%*	*12,3%*	*-2,2%*	*6,2%*	*2,7%*
Cash Ratio	0,17	0,13	0,18	0,22	0,28	0,24	0,19	0,22
Cash and Cash Equivalents	681	546	929	1.041	1.494	1.272	1.060	1.232
% Growth		*-19,9%*	*70,2%*	*12,1%*	*43,5%*	*-14,9%*	*-16,7%*	*16,2%*
Current Liabilities	4.023	4.187	5.046	4.741	5.325	5.210	5.532	5.679
% Growth		*4,1%*	*20,5%*	*-6,0%*	*12,3%*	*-2,2%*	*6,2%*	*2,7%*

Table 2 - Jerónimo Martins, SGPS, S.A. Liquidity Analysis

Liquidity Analysis	**Jerónimo Martins**	**Mean**	**Carrefour**	**Ahold Delhaize**	**Casino Guichard-Perrachon**
LTM Current Ratio	**0.53**	**0.74**	0.80	0.71	0.70
Current Assets	2,946		19,586	11,114	8,540
Current Liabilities	5,532		24,417	15,592	12,208
LTM Quick Ratio	**0.30**	**0.44**	0.51	0.43	0.40
Current Assets	2,946		19,586	11,114	8,540
Inventories	1,281		7,227	4,487	3,697
Current Liabilities	5,532		24,417	15,592	12,208
LTM Cash Ratio	**0.19**	**0.15**	0.10	0.22	0.14
Cash and Cash Equivalents	1,060		2,539	3,439	1,688
Current Liabilities	5,532		24,417	15,592	12,208

Table 3- Jerónimo Martins, SGPS, S.A. Liquidity Analysis Peer Comparison

	FYE 2017	2018	2019	2020	2021	LTM Mar-22	Jun-22	Sep-22
Adjusted Return on Invested Capital	4,6%	3,5%	9,6%	11,1%	13,3%	11,3%	13,2%	4,2%
Adjusted Pre-WC Free Cash Flow After Taxes	120	98	299	299	379	343	361	120
% Growth		*-18,6%*	*205,1%*	*-0,1%*	*26,7%*	*-9,5%*	*5,2%*	*-66,8%*
Invested Capital	2.625	2.768	3.131	2.691	2.851	3.030	2.727	2.864
% Growth		*5,5%*	*13,1%*	*-14,0%*	*5,9%*	*6,3%*	*-10,0%*	*5,0%*
Adjusted Return on Equity	6,0%	3,6%	11,9%	12,0%	14,1%	12,4%	15,0%	4,0%
Adjusted Pre-WC Free Cash Flow After Interest & Taxes	120	72	266	271	357	321	338	95
% Growth		*-40,5%*	*271,6%*	*1,7%*	*31,8%*	*-10,1%*	*5,3%*	*-71,9%*
Book Value of Equity	2.013	2.016	2.229	2.257	2.532	2.579	2.258	2.394
% Growth		*0,2%*	*10,5%*	*1,3%*	*12,2%*	*1,9%*	*-12,4%*	*6,0%*
Adjusted Return on Assets	1,9%	1,1%	2,7%	2,9%	3,4%	3,1%	3,3%	0,9%
Adjusted Pre-WC Free Cash Flow After Interest & Taxes	120	72	266	271	357	321	338	95
% Growth		*-40,5%*	*271,6%*	*1,7%*	*31,8%*	*-10,1%*	*5,3%*	*-71,9%*
Book Value of Assets	6.442	6.660	9.752	9.428	10.368	10.307	10.324	10.576
% Growth		*3,4%*	*46,4%*	*-3,3%*	*10,0%*	*-0,6%*	*0,2%*	*2,4%*

Table 4 - Jerónimo Martins, SGPS, S.A. Profitability Analysis

Profitability Analysis	**Jerónimo Martins**	**Mean**	**Carrefour**	**Ahold Delhaize**	**Casino Guichard-Perrachon**
LTM Adjusted Return on Invested Capital	**13.2%**	**4.9%**	6.5%	6.6%	1.5%
Adjusted Pre-WC Free Cash Flow After Taxes	361		1,419	1,530	231
Invested Capital	2,727		21,846	23,194	15,622
LTM Adjusted Return on Equity	**15.0%**	**2.9%**	10.3%	9.1%	-10.8%
Adjusted Pre-WC Free Cash Flow After Interest & Taxes	338		1,244	1,386	(646)
Book Value of Equity	2,258		12,122	15,188	5,995
LTM Adjusted Return on Assets	**3.3%**	**1.2%**	2.4%	3.1%	-2.0%
Adjusted Pre-WC Free Cash Flow After Interest & Taxes	338		1,244	1,524	(646)
Book Value of Assets	10,324		52,755	49,311	32,548

Table 5 - Jerónimo Martins, SGPS, S.A. Profitability Analysis Peer Comparison

	FYE 2017	2018	2019	2020	2021	LTM Mar-22	Jun-22	Sep-22
Gross Margin	21,2%	21,7%	21,9%	21,9%	21,5%	21,5%	21,3%	21,2%
Revenue	16.276	17.337	18.638	19.294	20.889	21.616	22.870	24.075
% Growth		*6,5%*	*7,5%*	*3,5%*	*8,3%*	*3,5%*	*5,8%*	*5,3%*
Gross Profit	3.458	3.760	4.076	4.227	4.497	4.652	4.871	5.095
% Growth		*8,7%*	*8,4%*	*3,7%*	*6,4%*	*3,4%*	*4,7%*	*4,6%*
Team Adjusted EBITDA Margin	5,7%	5,6%	5,5%	5,1%	5,4%	5,5%	5,5%	4,4%
Revenue	16.276	17.337	18.638	19.294	20.889	21.616	22.870	24.075
% Growth		*6,5%*	*7,5%*	*3,5%*	*8,3%*	*3,5%*	*5,8%*	*5,3%*
Team Adjusted EBITDA	929	966	1.029	987	1.137	1.179	1.255	1.069
% Growth		*3,9%*	*6,6%*	*-4,1%*	*15,2%*	*3,7%*	*6,4%*	*-14,8%*
Free Cash Flow Margin	1,8%	0,8%	2,6%	2,6%	3,5%	2,6%	3,3%	1,9%
Revenue	16.276	17.337	18.638	19.294	20.889	21.616	22.870	24.075
% Growth		*6,5%*	*7,5%*	*3,5%*	*8,3%*	*3,5%*	*5,8%*	*5,3%*
Free Cash Flow After Interest & Taxes	294	143	479	506	735	556	760	462
% Growth		*-51,2%*	*233,6%*	*5,6%*	*45,3%*	*-24,4%*	*36,7%*	*-39,2%*

Table 6 - Jerónimo Martins, SGPS, S.A. Margin Analysis

Margin Analysis	**Jerónimo Martins**	**Mean**	**Carrefour**	**Ahold Delhaize**	**Casino Guichard-Perrachon**
LTM Gross Margin	**21.3%**	**23.4%**	20.6%	27.0%	22.7%
Core Revenue	22,870		77,550	79,911	31,972
Gross Profit	4,871		15,978	21,610	7,247
LTM Team Adjusted EBITDA Margin	**5.5%**	**5.5%**	4.6%	6.1%	5.9%
Core Revenue	22,870		77,550	79,911	31,972
Team Adjusted EBITDA	1,255		3,555	4,910	1,888
LTM Free Cash Flow Margin	**3.3%**	**1.8%**	4.6%	1.6%	-0.7%
Core Revenue	22,870		77,550	79,911	31,972
Free Cash Flow	760		3,555	1,248	(214)

Table 8 - Jerónimo Martins, SGPS, S.A. Margin Analysis Peer Comparison

	FYE					LTM		
	2017	2018	2019	2020	2021	Mar-22	Jun-22	Sep-22
Bank Debt / EBITDA	**0,6x**	**0,7x**	**0,7x**	**0,5x**	**0,4x**	**0,4x**	**0,4x**	**0,4x**
Gross Bank Debt	537	639	732	524	460	451	469	470
% Growth		*19,0%*	*14,6%*	*-28,5%*	*-12,1%*	*-2,0%*	*4,0%*	*0,2%*
Team Adjusted EBITDA	929	966	1.029	987	1.137	1.179	1.255	1.069
% Growth		*3,9%*	*6,6%*	*-4,1%*	*15,2%*	*3,7%*	*6,4%*	*-14,8%*
Total Debt / EBITDAR	**0,4x**	**0,5x**	**2,2x**	**2,0x**	**1,8x**	**1,8x**	**1,6x**	**1,7x**
Gross Bank Debt	537	639	732	524	460	451	469	470
% Growth		*19,0%*	*14,6%*	*-28,5%*	*-12,1%*	*-2,0%*	*4,0%*	*0,2%*
Leases	0	0	2.384	2.273	2.387	2.447	2.263	2.463
% Growth				*-4,7%*	*5,0%*	*2,5%*	*-7,5%*	*8,8%*
Team Adjusted EBITDAR	1.289	1.356	1.426	1.388	1.553	1.601	1.681	1.720
% Growth		*5,2%*	*5,2%*	*-2,7%*	*11,9%*	*3,1%*	*5,0%*	*2,3%*
Bank Debt / Cash Flow	**4,5x**	**8,9x**	**2,8x**	**1,9x**	**1,3x**	**1,4x**	**1,4x**	**4,9x**
Gross Bank Debt	537	639	732	524	460	451	469	470
% Growth		*19,0%*	*14,6%*	*-28,5%*	*-12,1%*	*-2,0%*	*4,0%*	*0,2%*
Adjusted Pre-WC Free Cash Flow After Interest & Taxes	120	72	266	271	357	321	338	95
% Growth		*-40,5%*	*271,6%*	*1,7%*	*31,8%*	*-10,1%*	*5,3%*	*-71,9%*
Book Debt / Equity	**26,7%**	**31,7%**	**32,9%**	**23,2%**	**18,2%**	**17,5%**	**20,8%**	**19,6%**
Book Value of Bank Debt	537	639	732	524	460	451	469	470
% Growth		*19,0%*	*14,6%*	*-28,5%*	*-12,1%*	*-2,0%*	*4,0%*	*0,2%*
Book Value of Equity	2.013	2.016	2.229	2.257	2.532	2.579	2.258	2.394
% Growth		*0,2%*	*10,5%*	*1,3%*	*12,2%*	*1,9%*	*-12,4%*	*6,0%*
Market Debt / Equity	**4,5%**	**8,8%**	**7,0%**	**4,9%**	**3,1%**	**2,9%**	**3,4%**	**4,0%**
Market Value of Bank Debt	537	639	732	524	460	451	469	470
% Growth		*19,0%*	*14,6%*	*-28,5%*	*-12,1%*	*-2,0%*	*4,0%*	*0,2%*
Market Value of Equity	11.940	7.233	10.420	10.690	14.680	15.560	13.830	11.630
% Growth		*-39,4%*	*44,1%*	*2,6%*	*37,3%*	*6,0%*	*-11,1%*	*-15,9%*
Free Cash Flow After Interest and Taxes	**294**	**143**	**479**	**506**	**735**	**556**	**760**	**462**
% Growth		*-51,2%*	*233,6%*	*5,6%*	*45,3%*	*-24,4%*	*36,7%*	*-39,2%*
Interest Coverage	**N/A**	**9,3x**	**13,7x**	**16,7x**	**25,1x**	**23,6x**	**23,1x**	**12,1x**
Adjusted Pre-WC Free Cash Flow Before Interest & Taxes	281	246	454	473	553	520	531	302
% Growth		*-12,4%*	*84,6%*	*4,2%*	*16,9%*	*-6,0%*	*2,1%*	*-43,1%*
Cash Interest Expenses	0	26	33	28	22	22	23	25
% Growth			*25,0%*	*-14,3%*	*-22,3%*	*0,0%*	*4,5%*	*8,7%*

Table 9 - Jerónimo Martins, SGPS, S.A. Credit Analysis

Credit Analysis	Jerónimo Martins	Mean	Carrefour	Ahold Delhaize	Casino Guichard-Perrachon
Debt / EBITDA	0.4x	3.2x	2.7x	1.6x	5.1x
Gross Bank and Bond Debt	469		9,724	8,006	9,627
Team Adjusted EBITDA	1,255		3,555	4,910	1,888
Total Debt / EBITDAR	1.6x	4.0x	3.1x	2.9x	5.9x
Gross Bank and Bond Debt	469		9,724	8,006	9,627
Leases	2,263		4,947	10,866	5,265
Team Adjusted EBITDAR	1,681		4,664	6,568	2,504
Debt / Cash Flow	1.4x	6.8x	7.8x	5.8x	nm
Gross Bank Debt	469		9,724	8,006	9,627
Adjusted Pre-WC Free Cash Flow After Interest & Taxes	338		1,244	1,386	(646)
Book Debt / Equity	20.8%	97.8%	80.2%	52.7%	160.6%
Book Value of Bank and Bond Debt	469		9,724	8,006	9,627
Book Value of Equity	2,258		12,122	15,188	5,995
Interest Coverage	25.1x	7.4x	11.2x	10.6x	0.3x
Adjusted Pre-WC Free Cash Flow Before Interest & Taxes	553		1,898	1,530	231
Cash Interest Expenses	22		169	144	877

Table 10 - Jerónimo Martins, SGPS, S.A. Credit Analysis Peer Comparison

Appendix E

Company	EV/Sales TTM	EV/EBITDA TTM
Carrefour SA	0,4x	N/A
Ahold Delhaize	0,5x	6,5x
Casino Guichard	0,6x	N/A
Migros Ticaret AS	0,4x	4,6x
Jeronimo Martins	0,6x	7,3x
Sonae SGPS SA	0,6x	7,6x
Tesco PLC	0,4x	6,3x
	EV/Sales TTM	EV/EBITDA TTM
Average	0,5x	6,5x
Median	0,5x	6,5x

Table 1 - Multiple Analysis Peer Comparison

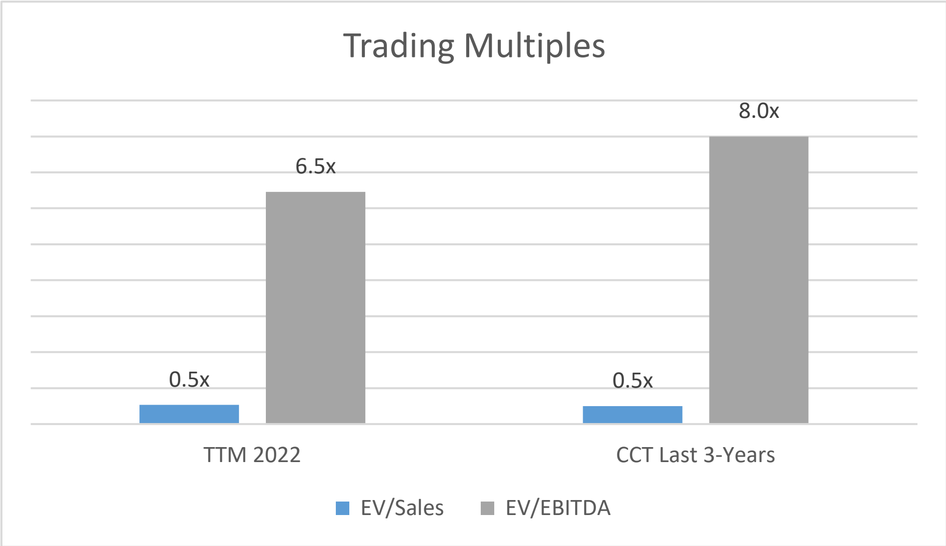


Figure 1 - Comparable Company Analysis

Figure 2 - Share Price Estimates

	(€m)	Banner:	Ara				WACC					
	1 033	10%	11%	12%	13%	14%	**15%**	17%	18%	20%	21%	23%
	2,06%	1 034	1 025	1 015	1 006	998	989	976	964	952	940	929
	2,21%	1 045	1 035	1 026	1 017	1 008	1 000	987	974	962	950	938
	2,36%	1 056	1 047	1 037	1 028	1 019	1 010	997	985	972	960	949
	2,51%	1 068	1 058	1 049	1 039	1 030	1 021	1 008	995	983	971	959
TGR	**2,66%**	1 079	1 070	1 060	1 051	1 042	1 033	1 019	1 006	994	982	970
	2,81%	1 092	1 082	1 072	1 063	1 053	1 044	1 031	1 018	1 005	993	980
	2,96%	1 104	1 094	1 084	1 075	1 065	1 056	1 042	1 029	1 016	1 004	992
	3,11%	1 117	1 107	1 097	1 087	1 078	1 068	1 054	1 041	1 028	1 015	1 003
	3,26%	1 130	1 120	1 110	1 100	1 090	1 081	1 067	1 053	1 040	1 027	1 015

	(€m)	Banner:	Pingo Doce				WACC					
	1 655	1%	2%	3%	4%	5%	**6%**	7%	8%	9%	10%	11%
	0,07%	1 579	1 564	1 549	1 534	1 519	1 505	1 491	1 477	1 464	1 450	1 437
	0,22%	1 616	1 600	1 584	1 569	1 554	1 540	1 525	1 511	1 497	1 484	1 470
	0,37%	1 654	1 638	1 622	1 606	1 591	1 576	1 561	1 547	1 533	1 519	1 505
	0,52%	1 694	1 678	1 661	1 646	1 630	1 615	1 599	1 585	1 570	1 556	1 542
TGR	**0,67%**	1 737	1 720	1 703	1 687	1 671	1 655	1 640	1 624	1 610	1 595	1 581
	0,82%	1 782	1 764	1 747	1 730	1 714	1 698	1 682	1 666	1 651	1 636	1 621
	0,97%	1 829	1 811	1 794	1 776	1 759	1 743	1 727	1 711	1 695	1 680	1 665
	1,12%	1 879	1 861	1 843	1 825	1 808	1 791	1 774	1 758	1 742	1 726	1 710
	1,27%	1 933	1 914	1 895	1 877	1 859	1 842	1 824	1 808	1 791	1 775	1 759
	Check						TRUE					

	(€m)	Banner:	Recheio				WACC					
	335	1%	2%	3%	4%	5%	**6%**	7%	8%	9%	10%	11%
	0,07%	320	317	314	311	308	305	302	299	297	294	291
	0,22%	327	324	321	318	315	312	309	306	303	301	298
	0,37%	335	332	329	325	322	319	316	313	310	308	305
	0,52%	343	340	336	333	330	327	324	321	318	315	312
TGR	**0,67%**	352	348	345	342	338	335	332	329	326	323	320
	0,82%	361	357	354	350	347	344	341	337	334	331	328
	0,97%	370	367	363	360	356	353	350	346	343	340	337
	1,12%	380	377	373	369	366	362	359	356	352	349	346
	Check						TRUE					

	(€m)	Banner:	Biedronka				WACC					
	15 006	3%	4%	5%	6%	7%	**8%**	9%	10%	11%	12%	13%
	2,02%	14 309	14 171	14 036	13 903	13 773	13 646	13 520	13 397	13 277	13 158	13 041
	2,17%	14 637	14 496	14 358	14 223	14 090	13 959	13 831	13 705	13 582	13 460	13 341
	2,32%	14 984	14 839	14 698	14 559	14 423	14 289	14 158	14 029	13 903	13 779	13 657
	2,47%	15 349	15 201	15 057	14 914	14 775	14 638	14 504	14 372	14 242	14 115	13 990
TGR	**2,62%**	15 735	15 584	15 435	15 290	15 147	15 006	14 868	14 733	14 600	14 470	14 342
	2,77%	16 144	15 989	15 836	15 687	15 540	15 396	15 255	15 116	14 980	14 846	14 714
	2,92%	16 577	16 418	16 261	16 108	15 957	15 809	15 664	15 521	15 381	15 244	15 109
	3,07%	17 037	16 873	16 712	16 554	16 400	16 248	16 099	15 952	15 808	15 667	15 528
	3,22%	17 526	17 358	17 192	17 030	16 871	16 714	16 561	16 410	16 262	16 117	15 974
	Check						TRUE					

	(€m)	Group			WACC % Changes for each Banner							
		-5%	-4%	-3%	-2%	-1%	-	1%	2%	3%	4%	5%
	-0,60%	17 242	17 076	16 914	16 754	16 598	16 445	16 290	16 138	15 989	15 842	15 699
	-0,45%	17 625	17 456	17 290	17 127	16 967	16 810	16 652	16 497	16 344	16 195	16 048
	-0,30%	18 029	17 856	17 686	17 519	17 356	17 195	17 033	16 875	16 719	16 566	16 415
	-0,15%	18 454	18 277	18 103	17 933	17 765	17 601	17 435	17 273	17 113	16 957	16 803
TGR	-	18 903	18 722	18 544	18 369	18 197	18 029	17 859	17 693	17 530	17 369	17 212
	0,15%	19 378	19 192	19 009	18 830	18 654	18 482	18 308	18 137	17 970	17 806	17 644
	0,30%	19 880	19 689	19 502	19 318	19 138	18 961	18 783	18 608	18 436	18 267	18 102

Figure 3 - Sensitivity Analysis per Banner

A deeper look into JMT's Supply Chain

Abstract

In a world marked by multi-decade high inflation and disruptions in global supply chains, companies able to properly manage their supply chains processes will most likely prosper ahead of competition. This section extends the analysis of Jerónimo Martins' business model, focusing on the company's cost side through a deep dive on its supply chain, addressing the theorical side and linking it to financial statements performance quantitatively, and benchmarking it *versus* the industry. We complement this with a holistic overview of the industry's supply chain, and its trends, and conclude that JMT is well positioned to improve its supply chain operations.

Introduction: Importance of Supply Chain

The pandemic had a notable effect in an economically globalized world, leading to disruptions in supply chains for most companies, following shutdowns and geopolitical issues between essential countries for the supply of goods, such as China. Although supply chain management has never been a hot topic, especially among investors, the focus has shifted over the last 2 years as the pandemic pointed out the importance of flexibility in the process of supply chain management.

The supply chain handles the flow of goods from raw materials to final products sold to the consumer, usually involving a wide and complex network of suppliers. It sets the foundation for continued growth by companies and as a result, the economy, by connecting various entities, including Materials processors, Manufactures/Producers, Vendors, Warehouses, Transportation companies, Distribution centers and Retailers. Typical initiatives in this area attempt to reduce costs, along with optimizing assets with the purpose of maximizing operating cash flows and asset efficiency, the former being the only sustainable continuing source of cash for a company. This can allow a business to streamline operations and reduce costs in the supply chain by properly managing working capital, and the cash conversion cycle.

All the above can have a severe impact in a company's cost side, and ultimately its bottom line, which is the (Lynch 2000). Established industries such as food and distribution, that have limited growth in the top line, are forced to devote more time and invest in supply chain processes, as opposed to an infant industry, e.g., cybersecurity, where high rates of growth are expected, market share and maximizing revenues are targeted my management teams, and the cost side is not as important to improve profitability.

JMT operates in a mature industry where the cost side is at least as important as the revenue side for profits, meaning a narrower analysis to this area is essential to understand the business model in depth.

Supply Chain of Food Retail and Distribution Industry

In an industry with generally low margins, any potential to save money can be very valuable by reducing costs in the supply chain, having in mind a very price sensitive consumer. It starts with food processors, manufacturers, and producers, who turn raw materials and ingredients into food products and/or finished goods. The chain continues with distribution centers, responsible for handling and storing inventory for retailers, wholesalers, and Direct-to-Consumer (DTC) channel. Wholesalers play an important role by aiding supermarkets in merchandise distribution, bridging the gap between food producers and retailers, by basically purchasing products from food manufacturers and distributing them to the end of the chain, such as retailers (Figure 1).

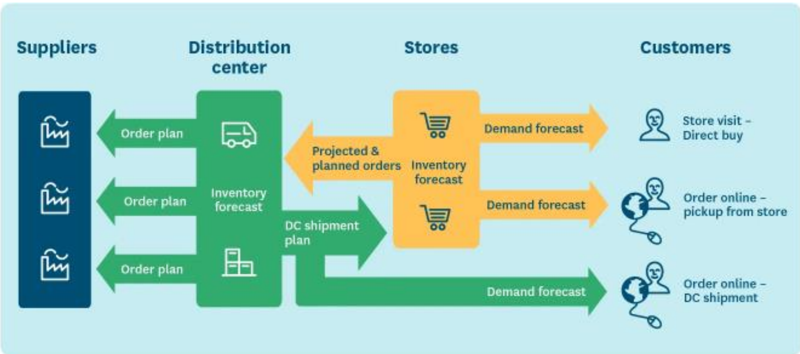


Figure 1: Supply chain overview

Given the fact that food retailers sell fruits, vegetables, and other perishable foods, which need quick delivery in order to maintain their freshness, supermarket chains have taken the role of distribution more and more over the years, to provide quick transit options and move their merchandise quicker.

Time and cost saving techniques are used such as utilizing same shipping boxes to transport and display perishable goods in stores. As a result, suppliers, such as farmers, are no longer reliant on middleman to deliver their products to retailers and can even enjoy better rates vs the traditional manner with more intermediaries involved.

Evolution of Supply Chain in the Industry

As stated above, vertical integration has accelerated in the food retail industry, with the number of grocers in Europe buying suppliers rising substantially (PwC Strategy 2019) .Given the fact that most food retailers have their own private brand, which involves third-party manufacturing, the strategic move of vertically integrating comes with various benefits, including:

1) Controlling costs along the entire supply chain, as opposed to only claiming profits through private-label products. With the increasing pressure as online grocery shopping gains market share and consumers can easily switch between food retailers, integration with suppliers can reduce the number of intermediaries and their margin share, eliminate brand-related markups, e.g., Unilever products, and decrease the complexity of carrying many brands for one product category;

2) More transparency across entire supply chain processes, a critical factor as they have become global and complex. Food retailers must, therefore, ensure a stable supply of products, along with safety and quality to avoid any sort of reputational risk, especially for perishables;

3) Manufacture and manage key product categories. At the moment, many retailers have private label businesses for only a few product categories (PwC Strategy 2019). Vertical integration

may aid the retailer to translate customer insights and preferences into a new product quickly, moving ahead of competition. Even though grocers have an information advantage over consumer-packaged goods companies, the ability to own the supply source can help them move to market faster any new trend or preference.

The supply chain has also been affected over long periods of time, taking into account the natural transition of food retailers business models, who started as traditional shops, moved to supermarkets/discounters, and are now giving a big importance to the e-commerce channel. This changes food supply chains, especially planning and control with the rise of enabling technologies (Big Data, Machine Learning), and consumers demanding faster, cheaper, personalized and more innovative products (R.Vallandingham 2018). The sourcing strategy will be affected by technology, where it will be easier to track suppliers' performance on many parameters such as quality, cost and environmental impact. Big Data will also help to achieve better inventory management, by having the "right product at the right time at the right amount". The use of technologies will allow for better promotion planning, as suppliers, through vertical integration, have access to the Point of Sale data. Warehousing can be optimized via mobile robots and optimized route instructions, also to accurately plan headcount requirements, machines, and number of shifts. Distribution benefits through less administrative burden on inbound logistics (R.Vallandingham 2018). A recent study found that 31% of large US grocery retailers still base their distribution center forecasts on historical data of outbound deliveries from these distribution centers, instead of forward looking (Johanna Småros s.d.).

All of these factors can sustain food retailers' further improvement in the cost side, which will lead to higher operating margins, by reducing lead times, food waste and transportation costs, improve efficiency of logistical processes, and to a lower extent, explore economies of scale as the market grows. The industry is adapting supply chain processes to compete against the food service channel, both through the offline and e-commerce channel, which implies a deeper focus into fresh and ready to eat products, relying on better and more efficient integrations with suppliers in this category (Johanna Småros s.d.).

Supermarket vs Discounter Supply Chain

A look into the financial analysis (see below) suggests that a discounter business model is able to achieve higher operating margins and can also be less vulnerable to supply chain pressures due to their unique business model: stocking large amounts of own-branded goods and having a limited number of stock keeping units (SKUs) in their stores, means stores have a smaller assortment of items and suppliers to deal with. This limited selection allows discount chains to have more flexibility to swap items in and out (Hanbury 2021). Even though private label manufacturers are still subject to the same supply chain challenges, the discount retailers have more flexibility to shop around by selling fewer national brands. On the other hand, in times of inflationary pressures for most products, they have less room to raise prices without triggering a change in consumer behavior. The cost structure in supermarkets implies that when scaling, there is a need of increasing overheads to manage larger operations (overheads structure for a store that sells up 2-3 times less SKUs are very different), whereas discounters have much lower headcount and focus on core assortment range and in providing at cheaper prices. This fundamental difference in their approach to business helps discounters to sustain their lower prices much longer than the supermarkets (Radhakrishnan 2015). The discounter business model makes a big difference in the cost side, not only from sourcing, but also through in-store optimization strategies. These can include cheaper lighting, check-out conveyor belts that drop the groceries straight into the trolley, bar codes on each side of the product that save the check-out operator time, among others, leading to significant time and money savings (Shadbolt, How the discounters are beating the supermarkets 2015).

Jerónimo Martins Supply Chain

JMT is somewhat vertically integrated in the sense that it not only sells to the end consumer (retail), but also owns and operates distribution centers in every country it operates (Poland: 17; Portugal: 8, Colombia: 5). This approach is common for big retailers as it allow for a better cost control along the supply chain and eliminates more intermediaries, which can facilitate the logistical processes (PwC Strategy 2019). It favors working with local suppliers with the strategic goal of shortening the distance to distribution centers and stores, minimizing waste which can reduce transportation and damaged inventory costs, and ensure freshness of products, especially for PD. For the purposes of ESG, this strategy can lead to a reduction in the direct ecological footprint through reduced carbon emissions (Graph 1). The company justifies having long-lasting contracts with local suppliers as being beneficial for the development of new and innovative products, giving consumers access to a wider assortment, as preferences change, and trends evolve. These partnerships can also help to overcome constraints in the food supply chain, a problem that arose for every food retailer since the pandemic started.

JMT has a commitment to guaranteeing 80% of food products purchased are sourced from local suppliers (Figure 2), a goal that has been achieved over the past years at a group and country level. Private brand and perishables products follow the same trend with a high rate of sourcing from local suppliers (Graph 2). Sourcing derived from imports is executed when products are scarce as a result of production seasonality, a common occurrence in fruits and vegetables; no sustainable domestic production to supply stores and; JMT is not able to guarantee a favorable price quality ratio, which can

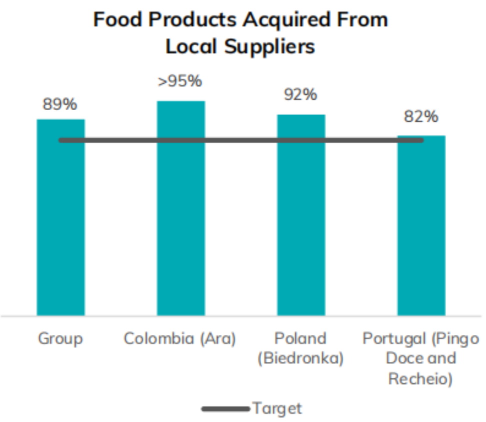


Figure 2: Sourcing

have repercussions in market share and consumer choice, especially in Biedronka, given the fact it operates as a discounter.

In addition, suppliers responsible for the production processes of the JMT’s Private Brand products are subject to quality controls regarding many aspects: composition, labelling, packaging, technology, and manufacturing procedures. This adds another step in the supply chain, as they are also required to have quality certification and, must comply with the respective codes of good practice (Jerónimo Martins 2021).

To address the ESG agenda from its supply chain, JMT has the strategy of mapping the presence of raw materials and ingredients it uses directly, or indirectly. These include Palm Oil, Soy, Paper, Timber, and Beef among others, and tracking the total amount consumed by collecting information from suppliers on the origin and sustainability certification of these ingredients (Jerónimo Martins 2021).

The creation of Jerónimo Martins Agro-Alimentar (JMA) aimed at ensuring direct access to the supply sources of strategic products, a trend observed in the overall industry, to support the food and distribution in Portugal. The subsidiary operates in three business areas: dairy products (Terra Alegre), Angus beef production and fattening (Best Farmer) and aquaculture (Seaculture), exposure it got mostly through acquisition (Serraleite factory and 2 farms). This move gives both direct access and integration with private label suppliers (see benefits above), and a reliable and self-controlled supply of fresh products, mostly in the fish category. This banner continues to expand by having entered a new country through the acquisition of two-thirds of the share capital of Moroccan company Mediterranean Aquafarm. In addition, Seaculture, increased its number of licenses for the production of sea bass and sea bream in the Algarve.

The company also mentions the use of technology and automation to continue improving operational efficiency at the stores and distribution centers, in addition to building a model of physical infrastructure for the future, based on operational experience, which takes into account the best practices in automation and warehouse management systems (Jerónimo Martins 2021). The development of several measures to improve the efficiency of logistical process through optimization of distribution routes and investment of more efficient vehicles has resulted in thousands of km being avoided, and as a result, carbon emission as well.

Jerónimo Martins exposure to raw materials is important to the supply chain, as the company relies heavily on plastic, paper and cardboard, among others, for a big percentage of its products to be packaged. The company aims and works with suppliers to reduce the number of materials used, encourage the use of recycled material, and ensure the recyclability of private brands and perishable's assortment. The data shows, however, it failed to reduce the overall usage, given volume increase of its sales (Figure 3). On the other hand, consumption of recycled materials has increased substantially in 2021, showing the company is slowly transitioning to reach its sustainability goals. The headwind associated with this move is the higher cost of the materials, an industry that still has a lot of challenges ahead before it becomes economically beneficial for companies to fully adopt recycled materials (GreenAndGrumpy 2022).

Main materials used

Total consumption (tonnes/million euros in sales)	2021	2020	Δ 2021/2020
Specific value	24.02	25.48	-5.7%

Total consumption (tonnes)	2021	2020	Δ 2021/2020
Materials consumption	**501,749**	***491,621**	**+2.1%**
• Biedronka	391,178	387,713	+0.9%
• Hebe	830	855	-2.9%
• Pingo Doce[87]	66,000	62,965	+4.8%
• Recheio	11,257	12,039	-6.5%
• Ara	32,486	*28,049	+15.8%
Private Brand product packaging	**473,464**	**465,188**	**+1.8%**
• Paper and cardboard	193,474	187,828	+3.0%
• Cardboard packaging for liquid products[88]	15,741	14,949	+5.3%
• Plastic	137,927	132,280	+4.3%
• Glass	95,176	100,257	-5.1%
• Steel	21,905	18,915	+15.8%
• Other materials**	9,241	10,959	-15.7%
Service packaging	**11,436**	***10,554**	**+8.4%**
• Plastic	8,567	7,469	+14.7%
• Paper and card	2,799	*2,576	+8.7%
• Other materials**	70	509	-86.2%
Other consumption	**16,849**	**15,879**	**+6.1%**
• Office paper	839	802	+4.6%
• Promotional leaflets	16,010	15,077	+6.2%

Figure 3: Raw Materials

Having strong relationships with suppliers, and owning an increasing % of the sourcing infrastructure, JMT will be able to use its controlling interest to prioritize and protect itself from future supply chain disruptions. Nevertheless, there will never be a 100% mitigation effect from supply crunches, as ingredients such as fertilizers, ammoniac, among others, widely used in the farming industry, are mostly imported from countries such as Canada, China and Russia (Statista s.d.).

Linking Supply Chain and Financial Statements

Financial statements can give powerful insights when it comes to the supply chain decisions of a business and assess the quality of those decisions in comparison with competitors and over time. Although companies usually do not report direct metrics for supply chain such as lead time and stock-outs and assessing the quality of the supplier's product is objectively difficult for investors, the Income Statement and Balance Sheet combined can give a holistic overview on how well the company is managing all the processes, inventories and working capital, among others. Relevant metrics and ratios for this purpose, even though they are also a function of multiple inputs such as sales and production, include:

The Cash Conversion cycle (CCC) is considered an efficiency measure, where one sees how long it takes to bring cash into the company. In other words, it shows how many days it takes for a company to convert cash from investment in working capital. A lower cycle points to a healthy and liquid company. The inputs of this critical measure directly related to supply chain are Days Inventory Outstanding (DIO) and Days Payables Outstanding (DPO). The former indicates represents how long it takes for the business to sell its inventory while the latter considers the amount of money that the company owes its current suppliers for the inventory it purchased, and it represents the time span in which the company must pay off those obligations. By maximizing DPO, the business holds onto cash from suppliers longer, therefore increasing its investment potential.

The inventory turnover measures how efficiently a company uses its inventory, a metric that is notably important for retailers to follow and for investors to understand if a company is dangerously approaching overstocking, by following the ratio over time. A low number may mean the company is struggling to sell its product and/or excess inventory, while a high number is usually a good sign, but can also show poor inventory management.

Another ratio that is related to supply chain operations includes fixed asset turnover, telling us how efficiently a company is at generating sales from its existing fixed assets.

Gross Margin Return on Inventory Investment (GMRII) is an inventory profitability assessment ratio analyzing a company's ability to turn inventory into cash above the cost of the inventory, which can be derived from Gross Margin and Inventory Turnover. Firms want to maximize this ratio since it means each unit of inventory is generating a higher profit. Finally, a DuPont analysis can also be useful to understand the fundamental differences of a business and its competitors, from the same industry, since it breaks down the performance of a company by looking at 3 main pillars: asset efficiency, profitability, and financial leverage.

It should be noted that looking at the ratios alone is not sufficient, which is why linking the numbers to the business model is crucial to derive conclusions.

Financial Analysis

This section analyses the metrics described above for each banner of the JMT group in the last 5 years and does a comparative benchmarking versus competitors in each segment. Peers were chosen based on the similarity of the business model, specifically differentiating between food retailers (Biedronka, PD and Ara) and cash and carry (Recheio). Pitfalls of the choice of peers can be summarized in the following way:

1) Poland does not have a publicly traded company in the same industry, with similar size and business model as Biedronka, justifying the use of international players that operate in other European countries (Tesco, Sainsbury);

2) Pingo Doce has one main competitor, Continente, owned by Sonae which has multiple business units, although the majority of revenues are derived from the food retail business. To

complement the comparison another peer was chosen in a similar market to Portugal (Etablissementen Franz Colruyt);

3) Recheio cash and carry business has only one similar competitor in Poland (EuroCash) that is publicly traded. Most companies in this industry are either private or owned by a larger conglomerate such as Delhaize that are vertically integrated in the wholesale and retail segment;

4) Ara's competitors do not operate only in Colombia, but have sales in other south American countries, such as Brazil, Chile, and Argentina.

Biedronka**:** The CCC is extremely favorable for the discounter, as it is highly negative, meaning the company is able to finance working capital needs by delaying suppliers' payments by a long time, and receiving cash from sales instantly. Even though it is normal for the industry to have negative CCC, due to the high bargaining power with suppliers, Biedronka's management of operating cash outcompetes its peers. Reasons behind this are the strategy of local procurement for products it purchases, which results in having a lower number of suppliers that it can leverage its negotiating power with, and the fact that Tesco and Sainsbury operate as a supermarket chain, rather than a discounter, meaning they have to deal with a larger base and bigger international suppliers to guarantee their wide assortment of products. Both asset productivity, by looking at asset turnover, and operating, net margins are above the industry median, resulting in a very compelling ROE for the banner. In addition, fixed assets have been utilized more efficiently in the past 5 years, as identified by the rising trend of fixed asset turnover. Specifically, the GMRII shows us Biedronka is able to achieve a very attractive value proposition for its products from an investment perspective, mostly by maintaining inventory costs low (higher Gross Margin), given that its topline strategy relies on increasing prices less than the food inflation, as evidenced by its price investments (Martins, Jerónimo s.d.).

Recheio: The CCC has been in line with its peer, as a result of both player's similar business model and dominant market positions in the respective countries (Clemente 2013). However, Recheio is able to fundamentally obtain better margins, both at an operating and bottom-line perspective, which, multiplied by the high financial leverage, is the main driver for the attractive ROE. The reason for EuroCash's lower margins could be the result of having 25% of sales derived from the retail segment, which acts as a dilutive force to the company, in addition to having a lower market share in Poland vs Recheio in Portugal, meaning economies of scale have not been fully explored (EuroCash 2022). The numbers tell us that Recheio lags EuroCash in sourcing inventory and maximizing its gross profit, evidenced by a lower gross margin and inventory turnover, nevertheless the operating side of the Portuguese banner shows to be much more profitable even though EuroCash is able to generate higher amount of sales through its assets.

Pingo Doce: PD has been able to leverage suppliers' cash better than its direct competitor, Sonae, and especially Etablissementen Franz Colruyt. Although both PD and the Continente banner have very similar market shares, Sonae's sales mix includes hardware and non-food items that decrease its bargaining power with suppliers vs having only exposure to the food retail industry (Sonae 2022). PD's ROE performance has improved over the years and surpassed its peers, a factor of the increasing leverage in the Balance sheet, having a multiplying effect for shareholder returns. Even though the banner is able to be more efficient utilizing its assets and derive higher returns from its inventory investments, the operating margin underperforms its peers.

Ara: The Colombian banner has an outstanding negotiation power with suppliers, resulting in an attractive CCC for working capital financing needs. This is especially important for a company that is growing fast and needs to invest in inventory to satisfy customer increasing needs. On the other hand, the profitability side is still on the negative looking at the operating margin, and gross margin is still below peers, showing that Ara is still at the early stages of its growth phase. Comparing to established players, who have multinational presence, Ara is only outcompeting when it comes to GMRII, which has been on the rise, due to an increasing gross margin and inventory turnover.

Comparing JMT banners: The are no meaningful differences in the CCC, other than Recheio having a longer cycle, due to the nature of the wholesale industry, with this notable difference also being observed for EuroCash vs European food retailers. The most profitable segment is Biedronka, due to its scale that leverages economies of scale the most and having in mind a discounter business model vs PD's supermarket model (Jerónimo Martins 2021). Fixed Asset efficiency has varied over time for each banner, with the Portuguese segment having its productivity decline as PP&E saw a jump after 2018 with no proportionally incremental sales. On the other hand, Biedronka and Ara have an inverse trend of increasing efficient use of its fixed assets.

Conclusion

JMT operates in an industry described by a complex and wide supply chain, involving hundreds of stakeholders, where competition is fierce through prices and consumers are extremely price sensitive. This complexity and industry dynamics give big relevance to the cost side to drive incremental profitability, considering the low expected growth in the food retail market. Supply chain deals with most processes related to the cost side within a company, meaning they should be of utmost importance to management teams and investors.

The industry has consolidated mostly through vertical integration in an attempt to optimize supply chain processes to improve operating margins through cost reduction, focusing on private label suppliers, where margins are additive to the entire group. The use of data will be a driver to efficiency gains, an area that has plenty of room to be improved by firms.

JMT operates a vertically integrated infrastructure, aiming to have an end-to-end control and view of its supply chain, by owning distribution centers and/or partnering with suppliers, especially private label. For this purpose, the group also created a standalone subsidiary, JMA, to connect its retail operations with the producer side, guaranteeing a dynamic and secure supply of essential products, ranging from dairy to fresh. Linking the supply chain analysis to JMT's financial statements, and comparing to each subsidiary's peers, led us to conclude that the model of local sourcing has helped the company achieve above industry average returns, in terms of margins, working capital and asset efficiency, in particular for its cash cow business, Biedronka. The initiatives JMT is undertaking to integrate operations with suppliers place the company favorably in a fast changing industry where the ability to undercut the competitor's price can be game changing.

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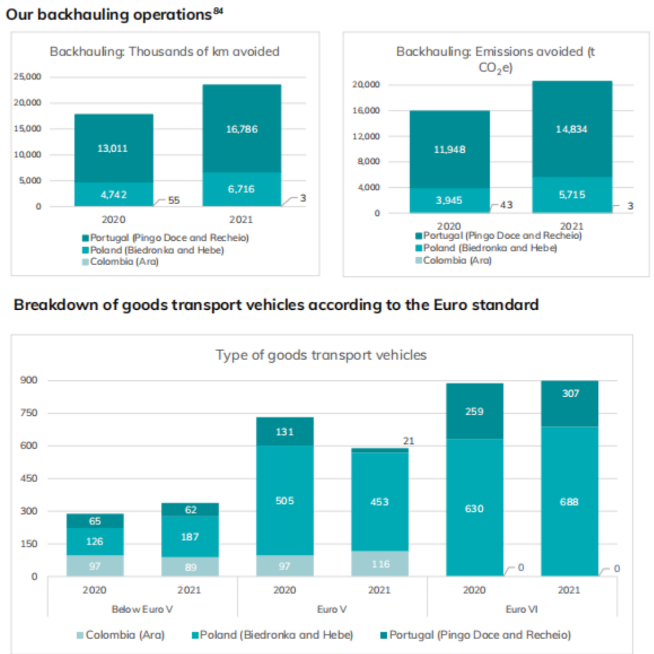
Appendix

Graph 1



Graph 2