MASTERS IN

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PROJECT

EQUITY RESEARCH JERONIMO MARTINS SGPS SA:
USING THE EXPECTED EFFECT OF THE MACROECONOMIC
INDICATORS

GONÇALO ALEXANDRE SIMÃO DIAS

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GONÇALO ALEXANDRE SIMÃO DIAS

SUPERVISOR:
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Abstract

Jeronimo Martins is the biggest Portuguese food retailer ever. Mainly operates through supermarket and cash & carry formats. The activity spans to Portugal, Poland and Colombia, being the supermarket and cash & carry leader in Portugal, and the supermarket leader in Poland. It is expanding its private label assortment wherever it operates, controlling the supply chain.

With a Sum-of-Parts (SoP) approach, where a FCFF DCF was performed for each business unit, a price target of 24.9€/sh for 2023YE was attained, considering medium-low risk. This translates into a BUY recommendation with 22% upside against the closing price of 20.4€/sh on January 13th, 2023. Other methods were also used to support the valuation, such as Multiples (SoP and group), FCFF DCF (group), APV, Residual Income, and the DDM. Real Options valuation was used to address the possible expansion scenarios into Romania. Stress tests and sensitivity analysis are presented to address risk factors to the price target. The main risks faced by the company are subject to discussion in the report.

This document contains an extended chapter that investigates how revenues can be forecasted using external factors to the company, using several macroeconomic indicators through econometrics. A revised target price of 23.8€/sh was achieved.

Resumo

A Jerónimo Martins é a maior distribuidora alimentar portuguesa. Opera principalmente através de cadeias de supermercados e *cash & carry* em Portugal, Polónia e Colômbia, sendo líder em supermercados e *cash & carry* em Portugal e líder em supermercados na Polónia. Está a expandir a seleção de produtos com marca própria nos diversos países, controlando a cadeia de abastecimento.

Com a abordagem de Soma das Partes (SdP), através de DFC por cada unidade de negócio, foi atingido um preço-alvo final de 24,9€/ação para 2023YE, considerando risco médio-baixo. Traduz-se numa recomendação de COMPRA com um potencial de valorização de 22% em relação ao preço de 20,4€/ação a 13 de janeiro de 2023. Foram usados outros métodos de avaliação, tais como Múltiplos (SdP e grupo), DFC (grupo), Valor Atual Ajustado, Valor Económico Adicionado, e o Modelo de Dividendos Descontados. A avaliação por Opções Reais foi usada para abordar os possíveis cenários de expansão na Roménia. Análises de sensibilidade são apresentados para abordar os fatores de risco para o preço-alvo. Os principais riscos enfrentados pela empresa são objeto de discussão no relatório.

Este documento contém um capítulo adicional, em que se investiga se as receitas podem ser estimadas usando indicadores macroeconómicos através da econometria. O preço-alvo foi revisto para 23,8€/ação.

Disclosures

A significant portion of this report was submitted by a group of students from ISEG, including the candidate, for the 2023 CFA Institute Research Challenge Portuguese Local Final. Upon winning the local final, the same report advanced as the representative report for CFA Society Portugal in the 2023 Southern Europe Sub-Regional Final.

This report is published for educational purposes by Master students at ISEG and is not an investment recommendation. This report must be read with the Disclosures and Disclaimer at the end of it. Appendices that support this report may be obtained from the author upon request.

Acknowledgements

To family members:

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- Father Cassiano. You lost everything at 30. You lost your wife, house, car…but you moved seas and ground to not lose your 2 children. Alone, with a 1-year-old boy and an 8-year-old girl, you showed the biggest stomach and force of will, and I carry those traits in my blood.

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- Friend/cousin/brother Pedro Baião. Will never forget what you did for me. Always wanting the best and advising me. A true brother.

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- António Candeias and Luciano Fernandes. For creating 4 ao Cubo – ADO. My life, and the life of many other boys would have been way worse if you had not created the amazing club. Experience. Tenacity. Toughness. Creating men.

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JMT: Food Retail is at a discount.

Jeronimo Martins (JMT) is positioning itself for long-term success. The company has a strong market leadership position in Poland and Portugal and is continuously expanding its operations in Colombia with steady growth in store openings. With sound financials, the company is ready to take the next step.

Investment Summary

We issue a BUY recommendation for Jeronimo Martins S.G.P.S., SA (JMT) with a price target of €24.9/sh for 2023YE using a DCF sum-of-parts (SoP) approach. The forecasted price implies a 22% upside potential from January 13th, 2023, closing price of €20.4/sh (Table 1). Assessing it as a medium-low risk, this recommendation is based on (1) resilient business model, (2) strong presence in growing markets, and (3) family management with long-term perspectives.

Solid Business Model

JMT understands the food retail industry unlike any other. Its business model has demonstrated longevity, effectively implemented across multiple generations and international markets.

The company operates through a cost leadership strategy that enables a competitively priced, high-value proposition to consumers, in markets characterized by strong price sensitivity. This is further supported by the flexible supply chain, which delivers a selection of high-quality, fresh products through an extensive network of local suppliers. This strategy is especially visible in Poland and Colombia (c. 71% and 7% of group revenues 2022YE), where >95% and 80% (respectively) of perishables are locally sourced. This flexibility in the supply chain is a core competitive advantage for the group, fundamental for the above-average ROIC, derived from superior capital turnover.

Also, the company has a deep understanding of their consumers, as per its motto "We're locals, wherever we are".

Strong Presence in Growing Markets

Biedronka is the dominant player in Poland, with c.27% market share. In Portugal, the group holds a significant market share of c.23% with Pingo Doce and is experiencing growth with Ara, in Colombia (with c.8% market share). Biedronka is the group's main revenue source (69% 2022YE), and the upward trend in growth is supported by opening stores in city centres to attain their proximity strategy (Figure 27). The increase in population through refugees' movements from Ukraine is mainly in regions where Biedronka has a strong presence, with revenues expected to increase c.5% CAGR (2022YE-2030YE).

HoReCa in Portugal has recovered to pre-pandemic levels, and strong branding has led to an increase in 2022Q3 LFL growth, both in Recheio (+28%) and Pingo Doce (+12%).

In Colombia, a market still dominated by traditional retailers (c. 68% of market share 2021, Figure 19), consumer trends are shifting towards discounter formats. Supermarket Leader Grupo Exito has lost circa 10% market share (Figure 8) to

Table 1: Investment Summary

Investment Summary	
Price target (2023YE)	€24.9
Upside	+22.0%
Price Close (13/Jan/23)	€20.4
Stock Exchange	Euronext Lisbon
Industry	Food Retail
Ticker (Refinitiv)	JMT.LS
52w Price Range	€17.7 - €23.3
Forward Div. yield	3.7%
Shares Outstanding	629.3 M
Market Cap (13/Jan/23)	€12.8 Bn
Free Float	43.7%

Source: Refinitiv, Team Estimates

Figure 1: Stock evolution (€/sh and volume in millions)
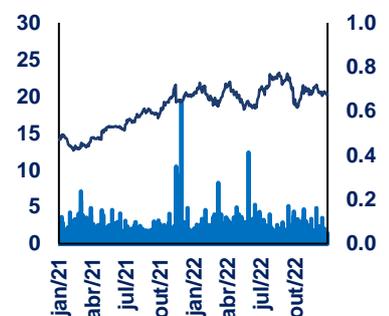
Source: Refinitiv

Figure 2: Valuation methods
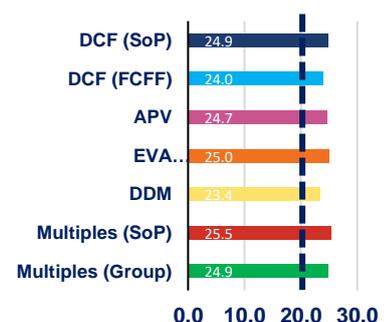
Source: Team estimates

discounters Ara and D1. Food inflation and larger scale of retailers are putting pressure on the small traditional retailers (tiendas de barrio), providing a growth opportunity for Ara, which increased its store count by c. 33% in 2022YE.

Family Management with Long Term Perspective

JMT is a family-owned company (Sociedade Francisco Manuel dos Santos, B.V. owns c.56%) and shown a clear effort to assert their position and reputation in the market. The Board has made ESG a priority, focusing on sustainability and social impact. The company ranks 4th best in ESG companies out of 146 companies in the food retailers' segment (Refinitv) and has an A score (highest would be 'AAA') by MSCI. Learning from the group's past failed expansion endeavours and risky leveraged financial position, JMT upheld a conservative financial position, even during the pandemic period. While presenting a similar gearing ratio, JMT is above peers regarding its ability to repay debt (Net Debt/EBITDA of 1.0 vs 2.1 of competitors, 2021YE, Figure 33).

Valuation Methods

The application of a DCF model, based on the FCFF sum of parts (SoP) of business segments, resulted in a price target of €24.9/sh. With a Relative Valuation per geographical segment, employing the SARD approach for selecting peers, the price target is €25.5/sh. Additional valuation methods listed in Figure 2. were considered to triangulate valuations (FCFF for the whole firm; APV, Residual Income/EVA®; DDM; and multiples, by business segment and for the whole group). The capital structure is expected to progress from 80-20% to 70-30% E/D 2022-30F. A comfortable dividend pay-out ratio (c. 85%) is assumed (Figure 34).

Risks to Achieve the Price Target

Macroeconomic factors affect food retailers, despite its non-cyclical nature. Inflation, GDP growth, energy prices, or exchange rates impact JMT's margins. The group estimates energy costs to represent 1.5% of sales in 2023, up from the pre-war 1% (Figure 22). Also, the group has an international scope, with segments in different functional currencies. The exchange rate risk is particularly accentuated in Poland, as JMT highly depends on Biedronka's performance.

The food retail industry is broadly characterized by monopolistic competition environments, where companies fight for market share, and often engage in price wars. Additionally, it faces political risks regarding tax laws, as Portugal and Poland have implemented new specific taxes on retailers.

Business Description

Jeronimo Martins, SGPS, S.A. (JM) is a Portuguese-based company that operates in food distribution, specialized retail and agribusiness sectors in Portugal, Poland, and Colombia. The major business activity is in Poland, with their Biedronka banner representing c.69% of sales and c.85% of EBITDA 2022e (Figure 4).

Group History

The group was founded in 1792, but the Portuguese supermarket business started in 1980. The Dos Santos family became shareholders in 1921. In 1949, the group established a joint venture with the multinational Unilever, guaranteeing a presence in manufacturing. The change in management in 1968, and the ambition to be noticed in the modern distribution segment, contributed to international recognition.

Figure 3: Learning from experience
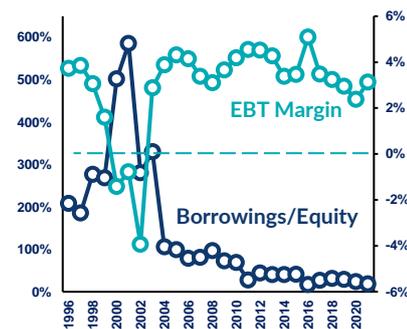
Source: Company's reports

Figure 4: Sales Distribution 2022e
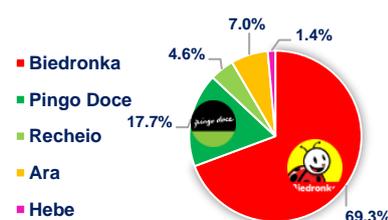
Source: 2022 preliminary results

Figure 5: Market Share - Food Retail (Poland 2021YE)
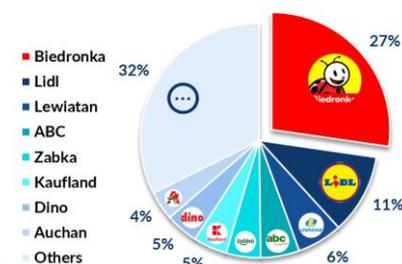
Source: Euromonitor

Following this vision, the Group expanded to Poland in 1995 and to Colombia in 2013. JMT also diversified operations into specialized retail and agribusiness in Portugal.

Operational Segments

Poland | Biedronka (Discount Format) represents the main operation of the group with c.27.3% market share (Figure 5). The brand operates through 3.395 stores (2022YE). By 2025, we estimate it reaches about 3.664 stores (+7.9% 2022YE), in line with their proximity strategy. The Polish banner registered +22.7% LFL growth (2022Q3). Biedronka's major mission is to offer selected high-quality products and merchandise at low prices. The focus on perishables and recent consumer trends in Poland (e-commerce is still inexistent, with 1.5% of the market in 2021, by McKinsey) provide the rationale for the proximity stores strategy.

Portugal | Major business segments include Pingo Doce (supermarket discounter chain) and Recheio (Cash & Carry). Currently at its maturity stage, Pingo Doce has registered +11.2% LFL growth (2022YE) to €4.5Bn. The company operates through proximity and neighbourhood stores, with a strong emphasis on perishables. With a total of 472 stores (2022YE), it is the leading supermarket chain in a market with oligopolistic characteristics. Pingo Doce and Continente (Sonae MC's branch) sum together more than 50% of the market (Figure 6). Pingo Doce presents EBITDA margin of 6.0% (2021YE), amounting to €244M. In the group, this figure equates to 15.4% EBITDA contribution.

Recheio is the market leader in the Cash & Carry segment (HoReCa), with an operation of 43 stores, registering a 11.2% LFL (2022YE) to €1.2Bn, recovering to pre-pandemic levels. The Cash & Carry nature yielded a lower EBITDA margin at c.4.7%.

Colombia | JMT's greenfield investment, ARA, presents a small store food retailing business, with a major focus on delivering quality local products at lower prices. The banner follows a proximity strategy, with 1093 stores in Colombia (2022YE). In 2021, after a change in management and considering changes in reporting due to IFRS 16, EBITDA was positive for the first time (Figure 26). Still, it was the group's lowest EBITDA margin (2.3%). These results are mainly driven by store expansion and food inflation (27.8% YoY 2022). As for market integration, ARA became the 4th biggest player in the Colombian modern food retail market in 2021 (within 8 years of operations, Figure 7). Competition is fierce. The competitor D1 was the fastest grower in the industry, as it reaped first-mover benefits (Figure 8).

Specialized Retail | The group also owns Hebe (Health and Beauty) in Poland, Jeronymo (Coffee Shops), Hussel (Chocolate and Confectionery), and the Agribusiness in Portugal.

The Agribusiness' purpose is to support the food distribution operation in Portugal, by ensuring direct access to the supply sources of strategic products. It operates in four distinct areas: fruits and vegetables, dairy products, livestock farming (angus beef and lamb meat) and aquaculture (sea bass and sea bream). The integration in the value chain has allowed margins in the Portuguese segment of JMT to grow from 5.2% 2017 to 5.7% by 2022YE.

Key Drivers of Profitability

Proximity stores | The pandemic has resulted in a shift in consumer behaviour, with a preference for proximity, as people spend more time working from home.

While consumer behaviour shifts, it is crucial to consider a holistic view moving forward. Online and offline are no longer competition, but complementary. JMT's

Figure 6: Market share – Food Retail (Portugal 2021YE)
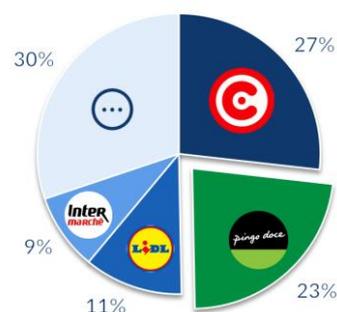
Source: Euromonitor, Team Estimates

Figure 7: Market share – Food Retail (Colombia 2021YE)
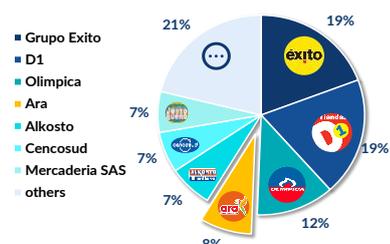
Source: Euromonitor

Figure 8: Colombia – discounters gaining market share.
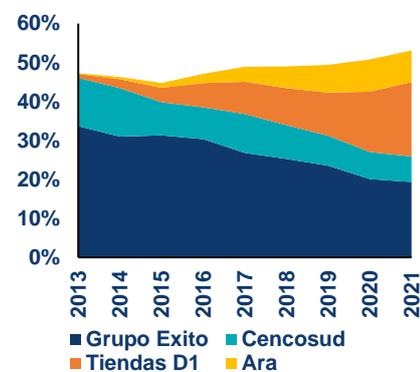
Source: Euromonitor

expansion plans, with a major focus on the development of new proximity and convenience formats, are in line with this shift. The unbeatable price-quality ratio, particularly in the Polish market, supports the group's positioning in the market.

The group also promotes a proximity experience through their fast delivery service implemented in Poland (Biek), available in the major cities. The policy in place targets less than 15 minutes of delivery.

Demographics | According to the UN Department of Economic and Social Affairs, the Portuguese population is expected to decrease at a 0.3% CAGR in the 2024-2030 period (Figure 10). This contrasts with the remaining geographic areas. Particularly in Poland, until 2023YE, a 3.2M increase is expected due to the war's refugee crisis (+8.5% YoY). This leads to an increase in the consumer base, and the industry's total revenues.

Focus on Supply Chain | JMT relies heavily on local suppliers. About 90% of suppliers of private labels are locally based (Figure 9). This focus on private brands is driven by consumer preferences, increasing in recent years. By working closely with local suppliers, JMT also aims to minimize inventory risk and support surrounding communities. This approach has allowed Biedronka to keep prices 15-20% lower than competitors during inflationary times, thanks to strategic sourcing and bulk purchasing. Additionally, the supply chain in Portugal is well-established, with the support of the Agribusiness, which enables to source products internally and reduce dependence on external suppliers.

ESG - Environment, Social and Governance

ESG ratings are proliferating, yet applications of these scores in valuation are mostly from a risk perspective. According to Refinitiv, JMT's ESG score is 85 out of 100. Among 146 companies under the Food and Drug Retailing Companies category, JMT ranks with a solid 4th place. We view ESG as a risk factor that can fluctuate both cash flows, the discount rate and the company's growth potential. However, JMT is well positioned towards future regulation, considering its positioning across the food retail industry.

Environmental

JMT's Environmental Protection Policy targets are restructured every 3-4 years, with several institutional standards implemented in the process. Since 2020 Jeronimo Martins Group began implementing the Task Force on Climate Related Financial Disclosures (TCFD) recommendations. JMT has both in climate and water security an A score (the highest score possible) and with their most recent pledge, the Porto Climate Pact, they improve their Green House Emission by reducing energy consumption by 10% per thousand Sales until 2023YE. So far, they have largely reduced their carbon footprint (scopes 1 and 2) by 11.7% in 2021 (compared to 2020), with the most considerable effect from Biedronka at c.-82%. Regarding the new Green Taxonomy under the new Corporate Sustainability Reporting Directive, JMT is at the forefront in ESG and will allow the group to not to be penalized in credit spreads for financing purposes.

Social

Following the SDG (Sustainable Development Goals), number 3 (ensuring healthy lives and promote well-being for all at all ages), reformulations in the group's private

Figure 9: Local suppliers of Private Brands
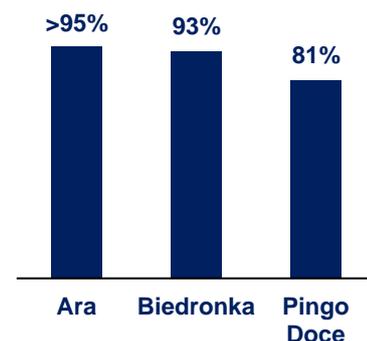
Source: Company's reports

Figure 10: Population growth rate per country (2018: base 100)
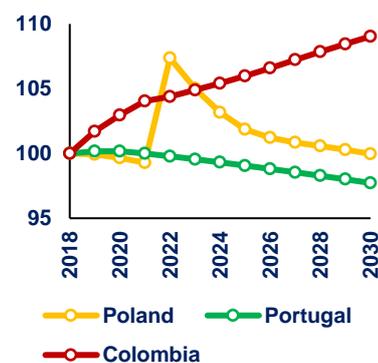
Source: UN

Figure 11: GDP growth per country

Source: IMF 2022

4
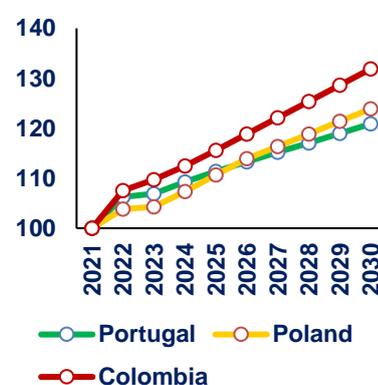
brands are constantly made in fast-moving consumer goods to fight diet related diseases that are prioritized by the local public health institutions. The group has lowered the levels of salt, fat, saturated fat, and sugars in their most sold products. Since 2015, JMT has been making food donations and in 2021 alone, 21 thousand tonnes of food were donated, primarily for humanitarian aid in Colombia.

JMT is very well positioned regarding Gender Equity. The group employs over 123 thousand people, of which 76% are women. Additionally, 68% of management positions are held by women, 71% of promotions involve women, 30% of the BoD is female, and the group's gender pay equity ratio is 96.5%. Workplace training hours have grown by about 80% since 2019 and 50% since 2020 (337,079 hours provided).

Governance

Board structure and Model | This is a family firm. The main shareholder is Soc. Francisco Manuel dos Santos, B.V., is controlled by the Soares dos Santos family (56.1% of share capital) and with stable ownership since 2012. The group adopted the Anglo-Saxon governance model, including an Audit Committee and a Statutory Auditor as oversight parties.

Board of Directors | Represented by eleven members (Executive: CEO/Chairman Mr Soares dos Santos), elected for a 3-year term. Since 2018, the company has made an active effort and the percentage of women on the board has increased from 14% to 36%. Currently, it is just above the minimum 1/3 threshold defined by the Portuguese Law on Gender Equality in Boards. Expertise in food retail and background diversity are characteristics of JMT BoD.

Executive Management | The group's C-level executives are all Portuguese nationals with an average tenure in the company of 21 years, of which 40% are female.

Committee on Corporate Governance and Corporate Responsibility (CCGCR) | In collaboration with BoD, the CCGCR focuses on monitoring matters related to the sustainability of the business and ESG. All matters related to the Agribusiness segment, environmental initiatives, employee support programs, and more are considered.

Remuneration policy | The remuneration of directors consists of a fixed component (80k, in 2021) and a variable component linked to performance.

Controversies | In 2022, Pingo Doce was fined for a fixing prices campaign in the amount of €91M, and Biedronka was accused of misleading campaigns, and was threatened with €1.5 billion fine. In our valuation, this is a contingent liability with a 5% likelihood despite not having any formality, yet.

Industry Overview and Competitive Positioning

The Food & Grocery segment is one of the highest-selling categories within the retail industry. Considering a market segmentation of Food, Drinks, Tobacco, and Household consumption, the Food segment accounts for about 73% worldwide. The industry has been showing flexibility regarding consumers preferences, which have been changing since 2019. During the pandemic period, consumers preferences considered product availability, proximity stores and e-commerce.

The war continues to impact the global economy, contributing to the fragmentation of international trade and investment. Sanctions on Russia after its invasion of

Figure 12: Forecasted LFL
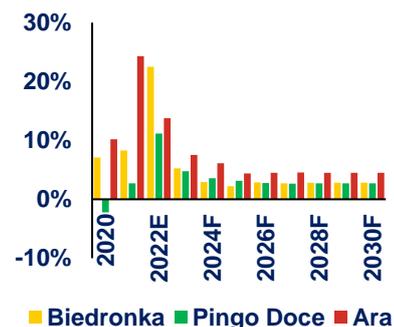
Source: Team estimates

Figure 13: EBIT margin & FCF Poland (€ billions)

Source: Team estimates

Figure 14: European markets' willingness to pay premium prices

Source: Euromonitor | Survey

Ukraine (Feb.24) pushed energy prices across Europe, increasing costs with a noticeable impact on margins.

Costs of agriculture production, metal extraction and refining, and of renewable energy technologies will be affected the most. As of October 2022, about 70% of European ammonia (an important input for nitrogen fertilizers) production capacity had been reduced or shut down (per World Bank).

Demand Drivers

Disposable Income | Food products are a core need of households, though disposable income drives spending. In 2021, the disposable income of households in Portugal increased by 1.4% (2021 YE) and 4.0% compared to 2020, while in Poland, there was a decrease of 1.6% in 2020-2021YE (Eurostat). The result is explained by the 1.5% growth in compensation of employees from the previous quarter and a 5.6% increase in annual terms.

Promotional Sales | Pricing is an important strategy in the business, especially in Poland, as Biedronka's performance can majorly be explained by its discount format. In Portugal, consumers are characterized as discount seekers (in 2019, sales increased 7.5%, where a particular care for discount campaigns was conducted). Still, Pingo Doce and Recheio have operations in different formats and do not pose a significant weight in the global company's performance.

Consumer Experience | Private labels stand in high demand, as consumers seek a more personal and high-quality experience (Figure 9). Consumers are now more sensitive not only to prices, but also to transparent information and new products aligned with market trends. Related to brand recognition, the Group also considers Retail media as an important incentive to increase profitability. JMT applies about 0.5% of its other operating costs into advertising. Customer loyalty is high in Poland, as the Biedronka banner leads by 3.6 times over the second player Lidl (32.4% Q1 2022 vs 9.0%), according to a satisfaction index by Statista.

Supply Drivers

Change in Market Dynamics | The European food retail market particularly considers three main trends: inflation, lower volumes, and polarization of the consumer. Labour costs have also increased, affecting the supply chain resilience. 83% of retailers considered investment in recruiting and employee retention, and 74% expect shortages in customer-facing positions in 2022. (Deloitte 2022).

Supply chain | In line with the Group's strategic vision of business independence, JMT considers not only its own production and distribution units, but also complementary business acquisitions (acquisition of a 10.1% stake in a Norwegian sustainable salmon production company, acquisition of two-thirds of the share capital of Moroccan company Mediterranean Aquafarm, etc.). Control over the supply chain goes in line with JMT's environmental care principle, and several marks regarding carbon footprint, energy and plastic consumption and local supplier policy are deemed.

Freshness meets proximity | Biedronka and Pingo Doce are the chains with most store counts in their respective markets, with Ara expecting to double their store count by 2030YE (Figure 28). The groups deep rooted presence in neighbourhoods and city centres allows consumers to have everyday access to a fresh variety of products, supplied by the group's extensive local suppliers' network.

Peers

Figure 15: PESTLE Analysis
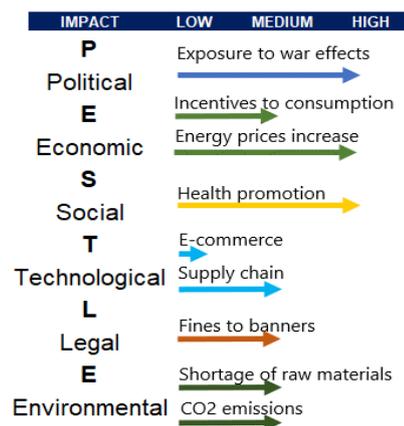
Source: Team Estimates

Figure 16: HoReCa evolution vs Recheio revenues (€ millions)
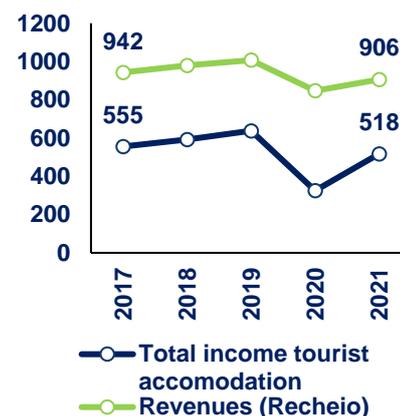
Source: Company reports

Figure 17: CAPEX composition
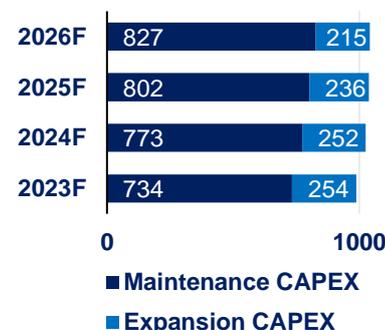
Source: Team Estimates

In Poland | German discounter Lidl has been the historic competitor given its financial power and similar discounter business model. However, Dino Polska (the banner with the second highest store count) had a relevant sales growth of c. 259% between 2019YE and 2022YE becoming with Eurocash (owner of retail chains ABC with 5% market share) and Lewiatan (6%), Biedronka's second biggest competitors (Figure 5).

In Portugal | Sonae MC poses as the main competitor to Pingo Doce, through the Continente chain. Both brands have over 50% market share, and all other food retail brands stand for a significantly lower percentage. Continente presents higher revenues and number of stores when compared to Pingo Doce. Moreover, Sonae considers a diversification strategy at a national level, with a current focus on e-commerce, representing a threat for JMT's future market share.

In Colombia | D1, a private hard discount retailer, competes both in proximity (neighbourhood stores) and in price, being ARA's its biggest competitor. The current market leader is Grupo Exito, a multi-format retailer supported by the French multinational Casino-Guichard Perrachon, also present in Brazil, but losing market share since 2013 (Figure 8). However, Colombia is still dominated by the disorganized traditional format where the "Tiendas de Barrio" represented 68% as of 2021 of the grocery retailer industry, being a big growth opportunity (Figure 19).

Trends

Health concern | The quality of products has become an increasingly important factor for consumers when purchasing. When considering experiences, consumers tend to prefer products and services related to quality (63%), sustainability (37%), health (33%), privacy (26%) and time (20%) (Euromonitor, 2021b; EY, 2020). The trend causes a problem for middle tier products, as those with less disposable income are pushed by inflation to cheaper products (McKinsey, 2022).

Green initiatives | There is a net intent of 9% of Polish consumer willing to pay higher prices for environmentally friendly products. Responsible practices within the Food and Agribusiness sector will be needed, as there is an expected global population growth of almost 10 billion people in 2050, and an increase of food demand of over 50% (Deloitte, 2020).

The upcoming category for retailers is alternative proteins, aligned with healthier consumption patterns. Food system makes up for about 34% of the total greenhouse-gas emissions globally, most of it coming from meat and dairy, areas that can still be affected in the JMT Agribusiness.

Energy influence over consumption | According to the Dutch bank estimates, the share of energy in the total cost of food manufacturers in the EU has risen from 2% (2019YE) to 7.5-10% (2022YE). Energy intensive sectors considered a rise of up to 30% of their production costs (in the expense segment of energy bills). Suppliers will increase prices due to higher energy costs. Furthermore, the Food Retail segment is highly competitive, in which companies present lower profit margins due to price negotiations (typically 1-3%, according to EuroCommerce), and company's absorption capacity is low.

Competitive Positioning – Porter's 5 Forces Framework

Threat of New Entrants – LOW | The discount format is a highly capital-intensive industry that requires high levels of investments to enter the market. The companies operating in this segment have acquired economies of scale by developing and controlling efficient supply chains, increasing the barriers of entry. Newcomers would have to develop their own supply chains, enter at a grand scale, and compete in

Table 2: JMT SoP's Price Target

EV to P	Value	(%) EV
Poland	€16,298	84.7%
Portugal	€3,382	17.6%
Pingo Doce	€2,546	13.2%
Recheio	€835	4.3%
Colombia	€1,391	7.2%
Others, adjustments	€-1,838	-9.6%
Total Enterprise Value	**€19,233**	**100.0%**
Non-op assets*	€1,337	7.0%
Debt**	€-3,333	-17.3%
Contingent Liabilities***	-€340	-1.8%
Non-Controlling (49% EV of PD)****	-€1,248	-6.5%
Equity Value	€15,649	81.4%
Price Target	**€24.9**	

*Cash + Investments
**All Financial Debt including Lease Liabilities
***Includes all contingent liabilities with 50% likelihood, except for the possible litigation with the Polish Office of Consumer Protection that applies over 10% of Biedronka's sales
**** Using the intrinsic value of Pingo Doce
***Source:** Team Estimates*

Figure 18: Porter's 5 Forces
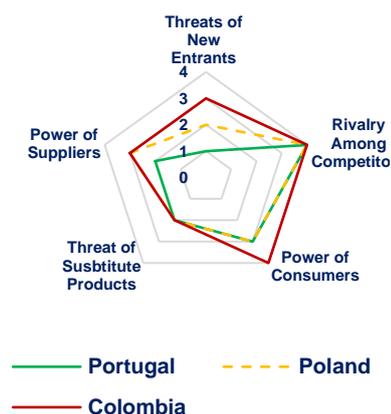
***Source:** Team Estimates*

price with existing players. Upfront investments like marketing, inventory and physical assets are key to enter and gain market share, putting even more pressure to the thin margins (Figure 18).

Rivalry Among Competitors – HIGH | Rivalry among existing players is intense and applied in the form of price competition, marketing, and physical proximity to cluster of clients. In Portugal, market maturity and low growth forces companies to compete against each other for market share. Given the capital intensity of the industry, exit barriers are high, forcing companies to stay and compete through price and accept losses in periods of high inflation. The industry's lack of differentiation in their products, and customers' low switching costs makes marketing expenses a necessity to not lose market share. For JMT, peers in Poland, Portugal and Colombia are strong players with a solid financial capacity.

Power of Consumers – MODERATE | Recent macroeconomic conditions have increased the already high price sensitivity in the consumers, given the high fraction food represents in their budget. Low switching costs and recent changes in consumer behaviour, including a tendency towards healthier food habits, discounts, and proximity preference have increased the power of buyers, forcing prices down, increasing the companies' fixed costs, directly affecting the industry's overall profit.

Threat of Substitute Products – LOW | The threat of substitute products in the Food Retail business is very low. However, companies must stay attentive and have flexible supply chains to shift to new consumer trends like organic and healthy food. Food retailers should be service oriented and prepared to get through to customers through multiple channels including the new growing online trend.

Power of Suppliers – LOW | Food Retailers are in need of constant and diversified stock keeping units, therefore the relationship between supplier's is key to properly mitigate logistics costs. However, given the scale of food retailers, the bargaining power against suppliers is extremely high. JMT was able to secure its business supply in Portugal by inserting an Agribusiness sector. In Poland and Portugal, the company has a long-term perspective with its suppliers, helping them with technology, quality control and financing to develop a profitable and mutually beneficial relationship.

Macroeconomic Snapshot for the Valuation

Poland | The economy is characterized by a steady growth in recent years (4.3% GDP growth 2013-2019YE), being the 37th country on parity adjusted GDP per capita, with an expected growth on real GDP by 2.4% CAGR 2022-2030YE (Figure 11). It is feeling the effects of the war, in both energy prices and refugee influx (3.5M Ukrainians expected to have entered Poland). Population will vary in the short term but remain in current values in 2030. The country is energetically independent, with local coal production (71% 2022YE). Polish consumers are becoming more price sensitive, with low adherence to e-commerce (1.5% in 2021YE), justifying the increase in market share of proximity discounter formats.

Portugal | The economy with the 3rd highest Debt to GDP ratios in Europe (119% 2022YE), Portugal has experienced a slow growth in the past decade (1.2% real GDP growth 2014-2021YE). The population of c.10M is expected to decrease at a -0.3% CAGR 2022-2030YE (Figure 10). It is undergoing a period of higher inflation (7.8% 2022YE, 4.7% 2023YE), but is expected to stabilize between 2-2.5% 2024YE. Portugal is dependent on imported energy, with 74% of total consumption coming from imports, and 31% coming from renewable sources. Consumers have become price-sensitive since the sovereign debt crisis and pay attention to promotional campaigns, with 74% being more cautious with spending (EY, 2022).

Figure 19: Colombia's market evolution

Source: Euromonitor

Figure 20: Revenue Evolution

Source: Team estimates
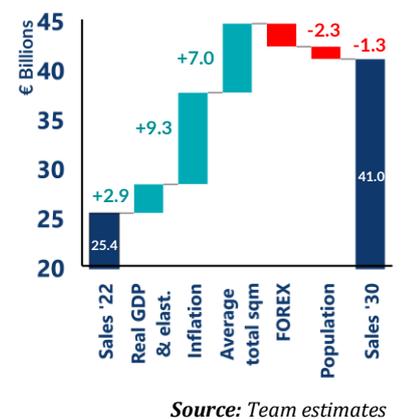
Figure 21: CAPEX evolution per segment (millions €)

■ **Poland** ■ **Portugal**
■ **Colombia**

Source: Team estimates
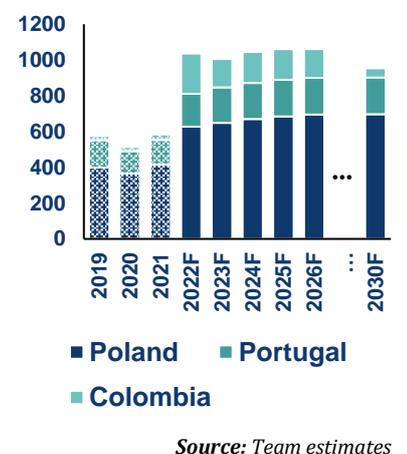
Colombia | Being one of the fastest-growing countries (3% CAGR 2013-2022YE, 2.3% more than the region) in Latin America, with still grand expectations. (3% real GDP CAGR 2022-2030YE, Figure 11). The country is dealing with high inflation rates (13.2% 2022YE, 7.1% 2023YE), driven by exchange rates (-7% CGAR COP/EUR growth 2018-2022YE, Figure 39) and high growth, with consequences further increased by the country's inequality level (most unequal in Latin America by Gini Index, 2022). Colombia is characterized by the diversity of cultures and consumer preferences between its 5 regions, and its social disparity within cities and rural areas. The basket of goods in each region is quite diverse, and some areas are lacking infrastructure, lowering the benefits of scale of large retailers, in a country still dominated by mom-and-pop stores (c. 68% of market share 2021, Figure 19).

Valuation

DCF: A Sum-of-Parts Approach (SoP)

Jeronimo Martins is valued using the Discounted Cash Flow (DCF) method, focusing on separating its presence by business units and using a FCFF sum-of-parts (SoP) approach as a regional aggregate. The Weighted Average Cost of Capital (WACC) was calculated using a hybrid approach, considering the specific risks of each geographical segment (Appendix 10). This method reveals a 2023YE target of €24.9/sh, excluding the potential side effects of a likely expansion. Romania is the probable expansion direction, and viable targets are Mega Image and Profi. Through a real options valuation approach to deal with uncertainty, a successful deal is estimated to add up to €0.3/sh or €0.1/sh to our base price target, respectively, yet with relevant uncertainty (Appendix 22). Additional methods are used to triangulate our base-case valuation, including the FCFF for the whole company, APV, DDM, EVA, and multiples.

Forecasts of financial statements are sensitive to the economic dynamics of each geographical location. Revenue forecasts were constructed using a hybrid, top-down approach, that mainly depends on the macroeconomic forecasts specific to each country the company operates in. The main variables affecting revenue growth are inflation (infl), real GDP growth (GDP), the elasticity of demand to income (θ), population growth (pop), forex changes (ΔFx), the forecasted number of stores and average m2 per store (sqm), for each business unit. The main formulation is:

(1) $\quad LFL_n = (1 + infl) \times (1 + GDP \times \theta) \times (1 + pop) \times (1 + \Delta Fx)$

(2) $\quad Sales_n = Sales\ p/sqm_{n-1} \times (1 + LFL_n) \times average\ total\ sqm$

Appendix 8 expands on the micro-forecasting of revenues per segment.

CAPEX is split between maintenance and expansion. It is estimated to increase from €584M in 2021YE to €1035M in 2022YE. This is primarily due to increased store openings (CAPEX for ARA stands at €205M 2022YE, up from €76M 2021YE) and refurbishment efforts in Portugal and Poland. Each banner's cost per revamp and cost per new store was computed considering inflation and forex changes. Also, the number of stores per banner was forecasted using each banner's growth estimates in each market, with the store count growth gradually decreasing to 0% in 2030YE. The number of revamps and store closures was calculated considering historical averages (Appendix 8).

The NWC and its changes reflect the historical components of JMT's cash conversion cycle, and it is split per segment is according to each segment's share of revenues in JMT.

Figure 22: Energy costs evolution breakdown (normal cost and overcharge for price increases, millions €, %)
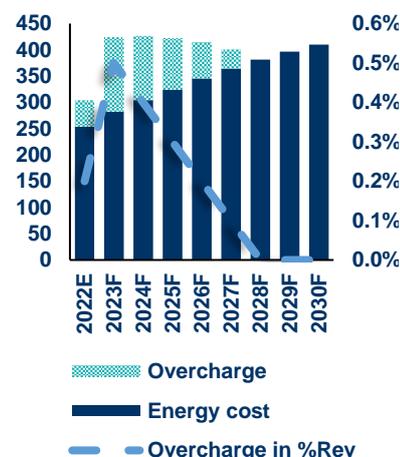
Source: Team estimates, JMT's Investor relations

Figure 23: Portuguese segment's revenue evolution and components
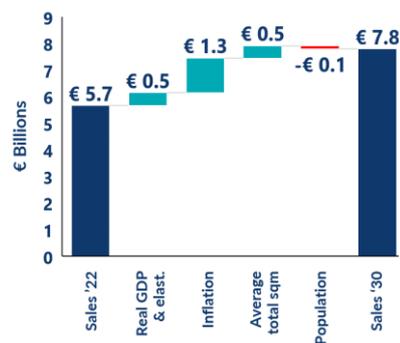
Source: Team estimates

Figure 24: Ara's EBITDA margins evolution vs. peers'
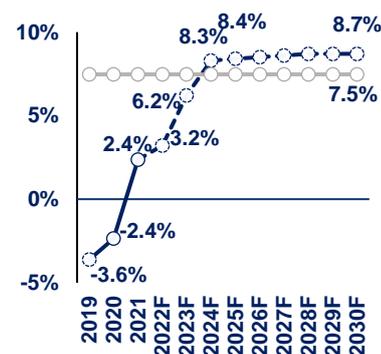
Source: Team estimates

Valuation by geographical segments

Riding the Polish Wave | Accounting for c.71% of revenues and 85% of EBITDA in 2022E, the Polish segment is the leading cash-generating powerhouse of the Group. It accounts for 84.7% of the group's EV (Table 2).

Influenced by the war in Ukraine, LFL revenue growth in Poland for 2022E is expected to be +22.5% (Figure 12), mainly driven by the refugee crisis (3.5M Ukrainians expected to have entered Poland) and the inflation surge (expected CPI growth of 11% CAGR in 2020-2023YE). Notably, inflation benefits retailers that can sustain lower margins, particularly the discounter formats, by driving out their competition and consolidating their market share. Biedronka's turnover per store is expected to grow at 4% CAGR 2022YE-2030YE, reaching €7.1M by 2030. We estimate a non-stop increase in store count for Biedronka. Despite the opening's slowdown in 2022 due to increased uncertainty, we estimate growth to start at +3% in 2023 and slowly decrease towards no growth in 2030 (reaching 3825 stores). With these assumptions, turnover is expected to increase at 5.6% CAGR 2022YE-2030YE, reaching €27.1B (2030 YE).

As coal accounts for 71% of Poland's energy production, it is one of the EU countries least affected by fluctuations in natural gas prices caused by Russian sanctions. Still, electricity price in Poland has been quite volatile, and the group is fully exposed to spot prices. It is a not negligible expense, growing from 1% in 2021 to 1.2% of sales in 2022, and partially responsible for the decrease in the EBITDA margin from 9.2% to 8.6%. In 2023, the energy costs forecast represents 1.5% of sales, and this effect fades in time, bouncing back in 2028 to 1% of sales (the pre-war level, Figure 22). Another notable item is the Polish Retail Tax, standing at 0.8% of sales between PLN 17M and PLN 170M, and 1.4% for sales above PLN 170M (c. EUR 35M). The impact of this tax is estimated to be c.€243M in 2022 alone (Appendix 2). The Retail Tax in Poland exerts a negative effect on JMT's equity value of -€3.1Bn, or -€4.9/sh (Appendix 14).

The health and beauty retailer Hebe's revenues were severely impacted by the pandemic (€14M or -5.4% from 2019 to 2020YE), but has restored its growth path, selling €358M in 2022YE (+€80M YoY or +28.8%). We expect the banner to modestly increase its share in the group's revenues from 1.4% in 2022 to 1.9% by 2030YE. Hebe benefits from synergies with Biedronka. EBITDA margin (9.0% 2021YE) is very similar to Biedronka (9.2% 2021YE), and we expect it to remain like this.

The Portuguese mature market | The Portuguese segment has been losing relevance in the group's revenues, dropping from 31% in 2015 to 24% in 2021. The impact of macroeconomic events was felt throughout JMT's operations, resulting in lower-than-anticipated sales growth for this geographical segment. Sales growth forecast is set to be 4% CAGR 2022 2030YE, lower by 160 bps than our estimates for Poland. The segment is mature yet yields less than half of Biedronka's EBIT margins throughout the forecasted period.

Pingo Doce remains the leader in the supermarket format, with c.23% market share of food retail, motivated by its strong distribution network. Store count growth is set to start at 2% in 2023, lower than pre-pandemic levels due to market saturation, and is expected to decrease towards zero growth by 2030YE. CAPEX will steadily increase at 1.5% CAGR for the 2022-2030YE period, considering essentially a few store openings and refurbishments. The average m2/store is forecasted to decrease at -0.4% per year until 2026YE, remaining stable until 2030YE, in line with recent trends and the proximity efforts. New stores are expected to be smaller and in neighbourhoods of large cities (like Lisbon and Porto).

Figure 25: EBIT per segment (%)

POL COL PT
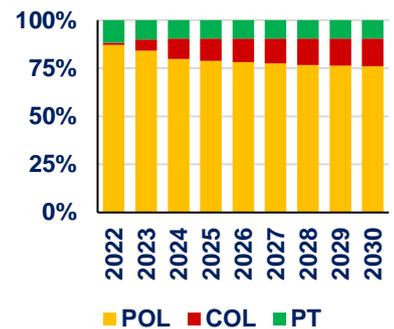
Source: Team estimates

Figure 26: Ara's EBITDA evolution (€ millions)
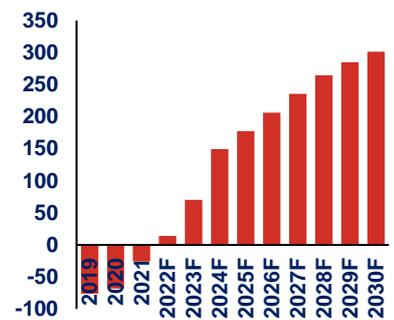
Source: Team estimates

Figure 27: Biedronka's lead in city centres
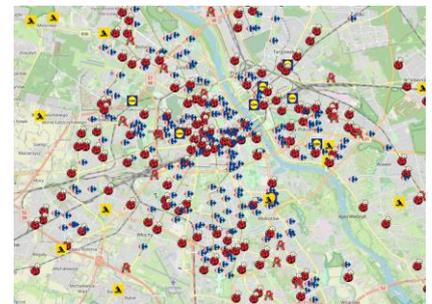
Source: Biedronka and competitors' store distribution in Warsaw, using Python

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Recheio, the Cash & Carry segment, is set to have a stable store count for the upcoming years. With 1 new store in 2022 in Cascais (one of the most touristic regions in the country), the segment may have reached its optimal capacity. Revenues are influenced by the HoReCa channel, which experienced a LFL drop of 15.8% in 2020. Yet, it is expected to surpass the 2019 levels in 2022e. LFL growth rates are forecasted to be like the ones for Pingo Doce, as tourism is expected to grow at a pace aligned with the country's GDP growth rate.

We estimate Pingo Doce and Recheio to contribute for 13.2% and 4.3% of group's EV, respectively (Table 2).

In Colombia, be Regional | Following its inception in 2013 and having learned from Colombian clientele, ARA developed a flexible supply chain to deliver different product mixes to its diverse customer base in each region.

Negative figures have been tormenting ARA since the start of the greenfield operation, though these are now fading away. The year 2021 brought the first positive EBITDA margin ever at 2.4%. In 2022Q3, it improved the EBITDA margin to 3.3% and it is estimated to reach the industry average of 8.7% by 2024YE (accounting for added energy costs, margin is set at 8.3% in 2024, Figure 30). The forecasts indicate that ARA will gradually reach the industry's EBIT margin of 5.7%, though no sooner than 2024. The convergence will be driven by achieving a larger scale and better brand recognition.

ARA stores skyrocketed until 2022. Stores count doubled in just 4 years, yet preserving suitable room to grow, as consumers increasingly shift towards discounter formats. Even with the group's heavy investments in store openings, we estimate that store growth will start at 15% in 2023, and gradually decrease to a portfolio of about 1936 stores by 2030 (Figure 28). LFL top-line growth is expected to be at 5.2% CAGR2022-2030YE (Figure 12), higher than Portugal and Poland due to higher GDP growth expectations and positive population growth. The population will increase along with purchasing power, both relevant drivers for revenue growth in our model.

According to our model, ARA contributes with 7.2% of group's EV (Table 2), 67% more than Recheio.

Others, Consolidation and Adjustments | This is a cost centre. Includes business with reduced materiality, holding companies and group's consolidation adjustments. Our estimate is to contribute negatively with 9.6% of the group's EV (Table 2).

Discount Rate and terminal growth | JMT operates in three main geographical segments where market risk, regulatory frameworks, and economic cycles vary significantly. Subsequently, a specific **cost of equity** (Ke) was calculated for each region using the standard CAPM approach. Betas were computed through the pure-play technique using data from more than 50 food retail companies, grouped into JMT geographical operations. The cost of equity for Portugal, Poland, and Colombia yields results at c.7.5%, 11.9% and 21.2%, respectively. Due to the limited information on the interest payment structure of the group, the cost of debt (Kd) was computed using the normalized Central Bank rates and added an implied normalized credit risk spread using historical data to account for the country-specific credit spread of JMT. The cost of debt is expected to reach higher values in the mid-term period 2023-2025YE, and then to reduce to c.4% 2027-2030YE. **Capital structure** will evolve, and we estimate it reaching to 70%/30% Equity vs Debt ratio in 2030YE. Most debt is composed of capital leases (25% 2030YE of the capital structure), while the financial debt weight amounts to 5% 2030YE (Appendix 10). **Terminal growth rate** is expected to be 2%, 1%, and 2.5% in Poland, Portugal, and Colombia,

Figure 28: Number of stores forecast
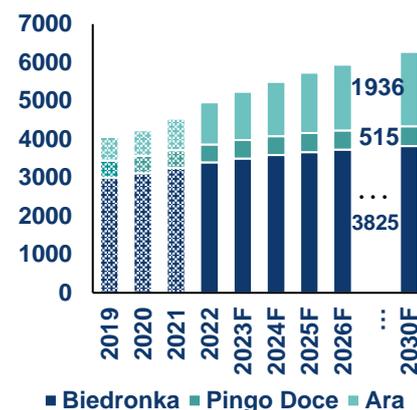
Figure 29: Total SQM comparison between banners
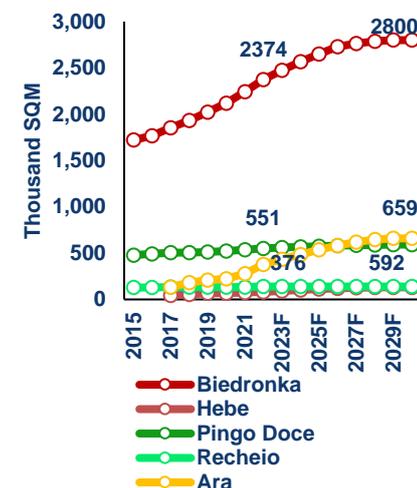
Figure 30: Ara's EBITDA margins comparison against major peers
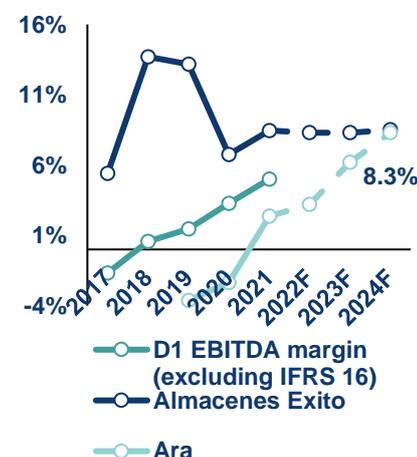
respectively. The growth was defined considering the company's reinvestment and macroeconomic prospects in each geographical location (Appendix 11).

Alternative Valuation Methodologies to Triangulate Results

FCFF for the whole company | The base approach considers a SoP of each EV. We also looked to consolidated figures and considered a FCFF and WACC (c. 10.6%) as a whole. This approach yields an estimated equity value of €15.1Bn or €24.0/sh, further supporting the base approach to valuing JMT (Appendix 20).

Dividend Discount Model | JMT's dividend strategy is centred around 40-50% of net income, adjusted for lease liabilities and RoU effects. However, the company does not apply cash management strategies, as the main shareholder does that by itself. This implies extraordinary dividends throughout the years. As such, we establish a dividend pay-out ratio of 85%, leaving enough room for expansion, since the cash balance never goes below €1.3Bn. Given this strategy, we valued JMT through a standard DDM model, yielding a price target of €23.4/sh, in line with our buy recommendation justified in the FCFF SoP approach (Appendix 18).

APV | To further support our recommendation, we performed the APV valuation method. The unlevered cost of equity was computed using EBIT-weighted figures, and the tax shields were obtained with the weighted cost of debt considering country specific risks. This alternative method also provides a buy recommendation at €24.7/sh (Appendix 19).

Residual Income | We drawn the model from the EVA® approach using the forecasted difference between JMT's ROIC and WACC for 2024-2030YE, and the invested capital forecasts. We estimated JMT price target of €25.0/sh, aligned with other valuation approaches (Appendix 17).

Relative Valuation | JMT profile makes it challenging and inaccurate to be priced against close competitors. Therefore, the relative valuation was based on a sum of parts (SoP) approach, considering different peers for different geographical segments. Peers were triaged considering geographical locations, size, and operating segments. A list of 58 peers was gathered, with companies from Europe, the Americas, and Oceania using the sum of absolute rank differences (SARD) approach. The approach used for performing the multiples analysis provided 6 publicly listed companies with similar risk-adjusted cash flow patterns and growth potential, for the Portuguese, Polish and Colombian segments (Appendix 21). Employing an average of Enterprise Value multiples (EV/Revenues and EV/EBITDA) and JMT figures by geographic segments, and summing the resulting equity values, it is estimated a price target of €25.5/sh, which aligns with the buy recommendation under all previous models (Appendix 22).

Alternatively, JMT was also valued as a whole, with the SARD approach yielding 6 different peers, using an average of EV/Sales, EV/EBITDA, EV/EBIT and EV/FCF, yielding a price target of €24.9/sh (Appendix 22).

Ready For Expansion

Management's ability to keep a healthy financial position puts the company in an offensive position for an expansion opportunity. A recent press release of JMT suggested an extension of the Biedronka banner to Romania. The market is fragmented, and growth prospects may unveil an opportunity to keep increasing and diversifying JMT's revenues. Profi and Mega Image have been analysts' leading opinions for an acquisition. Mega Image's main shareholder, Ahold Delhaize, detains 49% ownership of JMT's Pingo Doce. As such, there is already a business partnership between both companies. The business format of Mega Image is aligned

Figure 31: FCF & Revenue forecast JMT (billion)

Source: Team estimates

Figure 32: Cost of equity vs ROE

Source: Team estimates

Figure 33: Cash availability for debt repayment

Source: Team estimates

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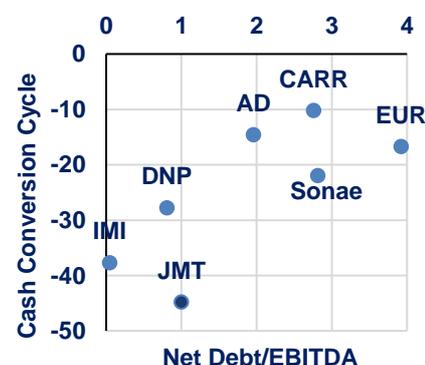
with Biedronka's profile of medium-small discounter stores and their strategy of proximity and presence in city centres.

The Romanian Scenario

Romania, the 7th most populous nation within the EU, has had GDP levels growing consistently above 3.0% since 2013, except for the pandemic year of 2020 (-3.7%). Yet, GDP quickly recovered in 2021. Inflation is also a macro constraint in the country. The current war affects the forecasted inflation levels for Romania (expected 11.9% 2022YE and 8.5% 2023YE). As for the grocery market, traditional retail still accounts for about 45% of sales, with room for proximity chains to grow.

JMT's CEO already disclosed that expanding Poland's largest food retailer is seriously on the table. Moreover, Romania would be a potential new market, and the group is considering the purchase of a retail chain currently operating. We consider the acquisition of the banners Mega Image or Profi as possible targets, due to a business model focused on proximity and discounter format. There is also a common shareholder between Pingo Doce and Mega Image – the Dutch multinational Ahold Delhaize.

Mega Image | The banner is the largest supermarket chain in Romania, with over 800 stores and operations in the convenience format Shop & Go.

Profi | Operating units focus on standard, city, and local formats, to satisfy consumer's needs, with over 1600 stores.

Both targets were valued using the Real-option Expanded DCF method, with real options being valued both with Binomial models and the Black-Scholes model. Real options valuation was implemented to extract added value in the acquisition case, assuming an acquisition date in 2025, with Mega Image adding €0.3/sh and Profi €0.1/share to JMT's share price.

Financial Analysis

Strong Profitability and Solid Cash Flows | JMT's key strength is its proficiency in generating cash flow. Group's EBIT (4.0% margin 2022YE) has demonstrated a steady upward trend, with a +8.5% CAGR 2016-2021YE. This trend is anticipated to continue in the future with an expected +12% CAGR 2022-2030YE. Two main factors drive this effect: **1)** a consolidated position in the Polish market, with increasing revenues (+5.6% CAGR 2022-2030YE); **2)** ARA attaining scale benefits with its proximity strategy, with higher operational margins (from 2.4% 2021YE to +5.7% 2030YE) and more stores (from 1093 2022YE to 1936 2030YE).

Biedronka presents an unbeatable price-quality ratio, allowing it to increase an already high market share, from 24.1% in 2016YE to 27.3% in 2021YE. Combining turnover with stores expansion, the banner registered an EBIT increase of +10.3% CAGR 2016-2021 to an EBIT margin of 5.9% in 2021. This is above competitors like Carrefour and Eurocash, but below Dino Polska (respectively 2.6%, 0.4% and 7.7%, 2021YE). Yet, energy inflation and the retail tax should hamper margins shortly. The Polish segment's operating margin is expected to decrease -70 bps to 5.2% in 2023YE. This effect should gradually fade, reaching 5.7% in 2030YE.

The Portuguese segment booked +2% revenues CAGR 2016-2021YE, in line with the country's low growth and inflation during this period. Both Recheio and Pingo Doce managed the pressure of negative basket inflation in 2021, accompanied by a low food inflation rate (0.7%). EBIT is expected to reach €197M for Pingo Doce and €38M for Recheio by 2030YE (+5% CAGR 2022-2030YE), backed by the country's full tourism recovery. Operating margins are lower than SONAE MC (5.2% 2021YE), though the competitor operates mainly through hypermarkets and has lower
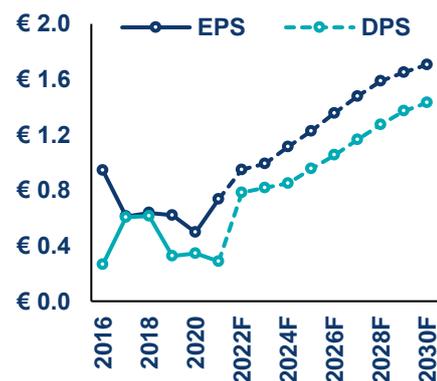
Figure 34: EPS & DPS (€)

Figure 35: Strategic Positioning

turnover. The JMT's Agribusiness, which diminishes inventory and supply chain risk, will continue to grow and supply the Portuguese segment, providing another stabilization factor for its margins.

ARA just turned its first positive EBITDA in 2021. Also, the Colombian banner's Free Cash Flow (FCF) is estimated at €-148M in 2022, penalized by significant expansion CAPEX (€224M). We estimate FCF to reach €335M by 2030 (Appendix 12), further improving the group's cash generation capabilities. This is mainly due to CAPEX decreases (after the strong store count growth phase), and the expectation for margins to converge to the main competitors' average of 5.7% (D1 and Grupo Exito 2021YE).

Outperforming ROIC and ROE Driven by Higher Efficiency | JMT's operates through lower operating margins than competitors (JMT 3.9% vs 4.7% 2021YE). Yet, ROE (23.7% 2022YE) is among the highest when compared to close competitors (15.6%) and the industry average (11.8%). ROE is highly influenced by asset turnover, and less so by financial leverage. The group's solid business knowledge and supply chain focus enable it to achieve an invested capital turnover of 4.4x 2022YE. This is higher than the larger Portuguese competitor SONAE MC (2.1x 2021YE), relevant competitors in Poland, such as Carrefour (2.7x 2021YE) and Dino Polska (3.2x 2021YE), and relatively higher than the industry average (3.0x 2021YE). The capital turnover is a clear characteristic of cost leadership, yet it is not at the expense of a relevant margin gap compared to competitors. All in all, ROIC is expected at 17.9% 2022YE, while competitors like SONAE and Carrefour lag behind at 8.3% and 9.8%. The strategy is paying-off.

Solid Financial Position | JMT has made the strategic decision to prioritize financial stability by maintaining a solid balance sheet. Net debt to EBITDA of 1.0x (2021YE) is half the industry average (2.4x) and JMT operates with excess cash holdings. The current ratio of 0.6x (2021YE), lower than the competitors' average of 0.8x, is driven by JMT's efficiency in managing its working capital. The company's average cash conversion cycle between 2019-2021 is negative at 45 days. Over the same period, the competitors' exhibit -22 days.

The ability to cover interest payments has increased from 4.4x in 2019YE to 5.5x in 2021YE (but lower than competitors' average of 7.5x 2021YE). The expectation is to reach 6.6x in 2030. More than 80% of interest charges are relative to capital leases, as it is the primary driver of leverage (2022YE leases account for c. 83% of total debt). This further emphasizes JMT's financial conservativeness in uncertain times, allowing the group to be well-positioned to tackle economic uncertainty, and expand. The Altman Z-score (below 1.8 suggests financial trouble, while above 3 suggests financial stability, Figure 37), comparison proves JMT's strong financial stability with a 3.1 score. This is above competitors like Carrefour, Ahold Delhaize, and SONAE MC, while still achieving one of the highest ROE.

Returning Value to Shareholders | In the current market uncertainty, JMT has increased cash holdings (173% increase between 2018-2021 to €1.5B) and still is able to return value to investors in the form of high dividend pay-outs. The 5Y average trailing dividend yield was 3.1%, with an average pay-out of 70.2%. Apart from exceptional dividends, the company's dividend policy is 40-50% of net income, lower than the industry average of 62% (2021YE). This is done to maintain a financial buffer, following JMT's conservative approach to the balance sheet. Considering regular and extraordinary dividends, an 85% pay-out ratio is forecasted, allowing the group to maintain cash holdings of at least €1.3B throughout the forecasted period. Further assurance of returning value is evidenced by the EVA® model, as ROIC (c.14%) is larger than and WACC (c.11%) throughout the period. Also, JMT's ROE

Figure 36: Value Creation for Shareholders

Source: Team estimates
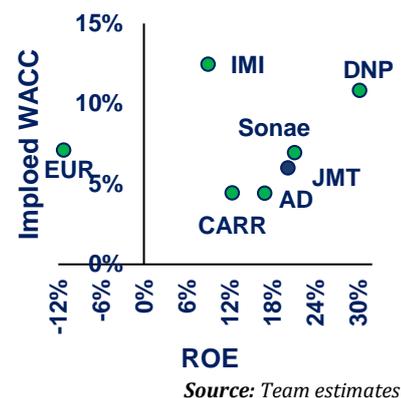
Figure 37: Risk & Return (Altman Z-score)

Source: Team estimates

Figure 38: Risk Matrix

Source: Team estimates

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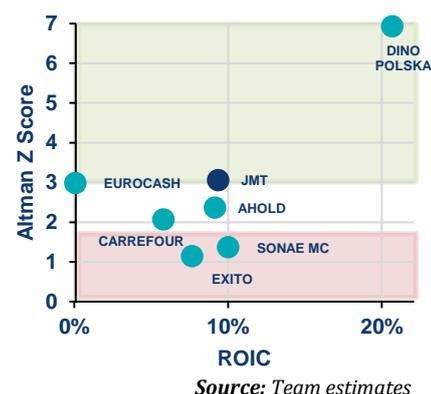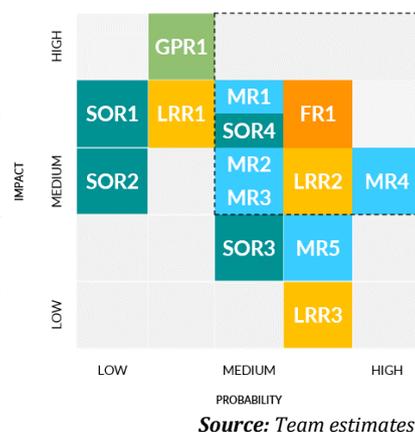
of 24% 2022YE contrasts with the implied Ke of c.12%, weighted by the EBIT of each business.

Biedronka's banner dependence | JMT is highly dependent and sensitive to Biedronka's performance. The Polish banner represents 84% (€1.5Bn 2022YE) of the group's EBITDA, and any unfavourable macroeconomic indicators (e.g., exchange rate and GDP decline) can greatly affect the JMT's EBTIDA margins and price target. According to our estimates, a negative parallel shift of -0.75% in Polish real GDP decreases the price target by 3.5% or €0.9/sh. Moreover, the inflationary period and the willingness to gain, or at least keep market leadership by absorbing part of the costs, will negatively impact Biedronka's operating margin in 2023 (-30 bps from 2022 level, -75 bps vs. 2021).

Investment Risks

Financial Risk | **Earnings diversification (FR1)**

The company relies heavily on Biedronka, which generates 69% of its revenues and 86% of EBITDA (2021YE), with the highest operating margin at 5.9%. The Portuguese market is mature, and the Colombian segment has yet to reach scale, making the company's profitability highly sensitive to changes in the Polish economy. **Mitigation:** In response to the current crisis, the company has decided to absorb inflation costs to maintain market share and consumer loyalty, causing EBIT margins to decrease by 46 basis points to 5.5% (2022YE). To diversify revenue sources, the company is focusing on rapidly growing markets such as Colombia (+1000 stores) and possibly Romania in the future.

Market Risk | **Exchange Rates (MR4)**

Given its international profile, JMT receives 77.7% of its total revenues in foreign currency (70.7% in Zlotys and 7% in Colombia Peso), exposing the company to the constant depreciations against euro (-1.4% CAGR EUR/PLN, -8.2% CAGR EUR/COL, 2013-2022YE). Overall, currency translation losses for JMT accounted for - €79M between 2016-2021YE and we expect PLN and COL to continue depreciating (-1.8% CAGR, -1.4% CAGR, 2022-2030YE, respectively). **Mitigation**: To mitigate the risk of currency fluctuations, JMT has implemented two key strategies: using currency derivatives and obtaining funding that corresponds to the currencies of the projects it invests in, effectively acting as a natural hedge.

Market Risk | **Inflation and Decrease in Purchasing Power (MR1)**

All the markets where JMT operates are going through high inflationary periods, and in Poland, the biggest market, salary increases (13.9% 2021YE) did not match the soaring inflation rates (16.6% 2022YE). Food inflation in Poland, Portugal and Colombia all surpassed 20%. Colombia recorded the highest increased with 27.1% 2022YE, followed by Poland 21.5% 2022YE. Food and beverages represent around 20% of total expenditure of the average polish household expenditure and 17.4% 2021YE in Portugal. These increased prices affect gravely consumers' budgets. Given the high competition in the food retail market, and customers low switching costs, JMT cannot pass all the costs to consumers without risking losing market share, obliging the group to absorb costs. **Mitigation**: Across markets and all the group's banners JMT has decided to reduce margins to keep market shares, maintaining its position as price leader and relying on turnover as a driver for ROE and ROIC.

Strategic & Operational Risk | **Supply Chain Disruptions (SOR4)**

Discounters rely heavily on supply chain efficiency to achieve scale and consequently lower prices. Any disruption along the chain increases costs and the

Figure 39: Exchange rate evolution
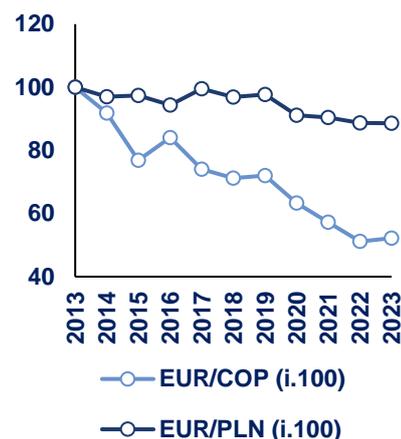
Source: Refinitiv

Figure 40: Monte Carlo (MC) Simulation

Mean	**€25.22**
Median	**€24.98**
St. Deviation	**€4.55**
% Buys	**69%**
% Holds	**24%**
% Sells	**7%**
# Iterations	**100,000**
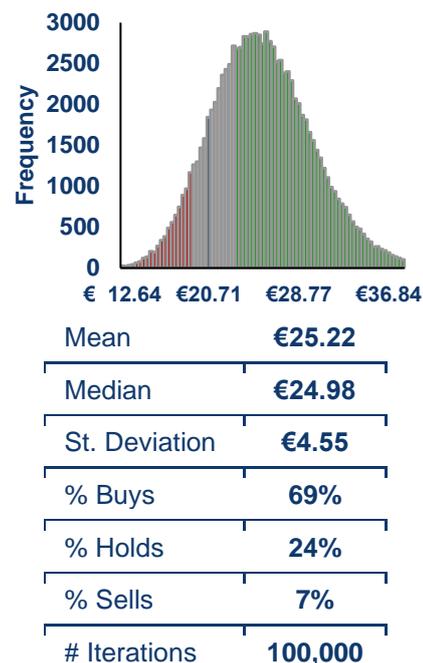
Source: Team estimates

damages the group's profitability, which is highly dependent on turnover. The pandemic, the conflict in Ukraine, and the following economic fallout, contributor for national strikes, have all constrained the supply chain environment. **Mitigation:** The Group focuses on having state of the art Transportation Management Systems, which enables fast and efficient routes, and JMT's Private brands represent around 40% of the group's sales. In Portugal, Agro-Alimentar was created to secure the assortment of diaries, livestock farming and fish. These strategies allow for better control and assurance of product availability and quality.

Risks to Price Target | Key assumptions were tested using scenario analysis, sensitivity analysis and Monte Carlo simulation. A further robustness test to our price recommendation.

Scenario analysis

To better grasp the effects of each input in the valuation, we performed scenario and sensitivity analysis, and a Monte-Carlo simulation (Figure 40).

Figure 41: Inflation Shifts

Bars: €23.7 (-2.0%), €24.3 (-1.0%), €24.9 (0.0%), €25.4 (1.0%), €25.9 (2.0%)

Source: Team estimates
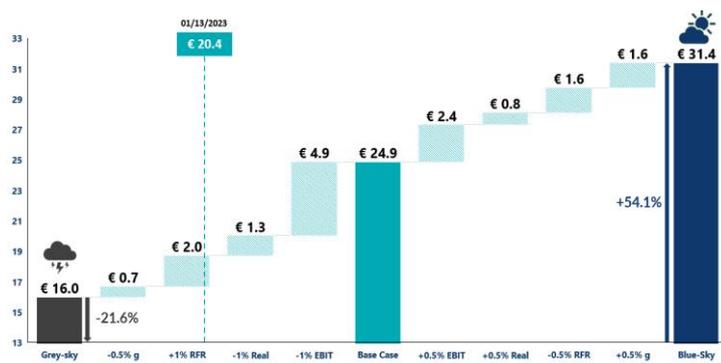
In the Blue/Grey-Sky scenario, we stressed EBIT margins' variations, along with the RFR, terminal growth rates, and Real GDP shifts.

We conclude that a +0.5% (+9.8% or +€2.4/sh) or -1% (-19.7% or -€4.9/sh) variation of all countries' margins impacts valuation more than the other stressed variables. The Blue-Sky scenario (+26.1% or +€6.5/sh) implies a combination of several positive impacts like a +0.5% shift in EBIT margins, real GDP and g, and -0.5% RFR. The Grey-Sky scenario (-35.7% or -€8.9/sh) implies a combination of factors in the opposite direction compared to the Blue-Sky.

Figure 42: Polish EBIT Margin Shifts

Bars: €16.6 (-2.25%), €19.3 (-1.50%), €22.1 (-0.75%), €24.9 (0.00%), €26.7 (0.50%)

Source: Team Estimates

Monte Carlo simulation

With the use of a 10,000 trials Monte Carlo simulation to further support our risk analysis, in 69% of cases a buy recommendation (price target > €22.93/sh), with a mean of €25.2/sh and median of €25.0/sh.

Sensitivity analysis

With the following sensitivity analysis, we can understand the effects of shifts in the terminal growth rate, the GER 10Y yield, which is the base for all countries' RFRs (can be understood as WACC variations too), and the EBIT margins off the group. We can understand that the price target is more sensitive to EBIT margins. A decrease in EBIT margin of -1.5% impacts the price target in -€7.3/sh (or -29.3%).

We conclude that the most sensitive variable to the price target is the margins, and specially Poland's EBIT margin, which by itself can cause a -22.3% change in price target with a -1.5% shift in margin. This compares to a -4.8% variation in the price target if only the Portuguese EBIT margin shifts -1.5% (Appendix 25).

		EBIT margins shift					RFR (GER 10Y yield)					
		-1.5%	-0.75%	0%	0.75%	1.5%	1.0%	1.65%	2.15%	2.65%	3.15%	3.50%
g shift	-1.0%	€ 16.0	€ 19.3	€ 22.7	€ 26.1	€ 29.5	€ 25.7	€ 23.9	€ 22.7	€ 21.6	€ 20.6	€ 19.9
	-0.5%	€ 16.7	€ 20.2	€ 23.7	€ 27.2	€ 30.7	€ 27.0	€ 25.1	€ 23.7	€ 22.5	€ 21.4	€ 20.7
	0%	€ 17.6	€ 21.2	€ 24.9	€ 28.5	€ 32.2	€ 28.5	€ 26.3	€ 24.9	€ 23.5	€ 22.3	€ 21.5
	0.5%	€ 18.5	€ 22.3	€ 26.2	€ 30.0	€ 33.8	€ 30.2	€ 27.8	€ 26.2	€ 24.7	€ 23.3	€ 22.5
	1.0%	€ 19.7	€ 23.6	€ 27.6	€ 31.6	€ 35.6	€ 32.3	€ 29.5	€ 27.6	€ 26.0	€ 24.5	€ 23.5

JMT: The macroeconomic indicators' effect on valuation.

Introduction

This chapter will focus on providing a scientific approach to the previous equity research on JMT, which had a price target of €24.9/sh. The LFL growth was forecasted per country using macroeconomic indicators such as GDP, inflation, population growth, and exchange rate. Using econometrics, the goal is to refine the valuation by reaching the coefficients to be applied on each macroeconomic indicator of the model.

Using the econometric approach, a revised price target of €23.8/sh was attained, maintaining the BUY recommendation, further solidifying the analysis.

The stock's market value and its evolution over time is an important indicator of the vitality of any company. The role of an Equity Research analyst is to provide in-depth market analysis and recommend actions to take, or not, about financial securities, so that investors make informed decisions. A great part of the analysis is to collect market data to form expectations about the company's future.

The intrinsic value of any company is determined by several factors and combinations between them. Arguably, the main factors influencing the intrinsic value of JMT are: 1) Revenues, portraying costumers' demand for its products; 2) Margins, how much does a company keep from its sales; 3) Discount rates, depicting the perceived risk and translating future cash-flows into present value amounts.

However, the intrinsic value of a company can be subjective. Analysts can have varying opinions, which lead to different financial models and assumptions, and ultimately different price targets for the same company at the same time. JMT's analysts' recommendations in 2023 alone ranged from €17.5/sh to €26.5/sh (Refinitiv).

Additionally, the market itself tends to overreact, both to positive or negative news that influences any company or the market, Ashwin (2023). Human behaviour is a major player in a company's stock performance, sometimes hugely overvaluing or undervaluing shares.

Also in the short-term, stock returns are formed having the expectations of the economic indicators, and not the actual performance on any given time. Thus, news of better times in the future will lead to better performance in the present time, and bad news regarding the future tend to lead to worse performance in the present. By itself, this factor will lead to deviations between the indicators and stock market returns at any given moment, as investors integrate the forecasts in their investment decisions today, (IMF Research Department, 1998). In this paper, the authors find a significant relationship between several macro announcements like the FED's decisions on money supply, inflation, housing supply, etc. Another proof of this concept is the fact that it is commonly accepted that crashes tend to happen before the recessions, and not in the recession itself.

Most authors, like the ones in the Literature Review, study the relationship between a company's stock performance and macroeconomic and microeconomic indicators.

Figure 43: Portugal's indices chart.
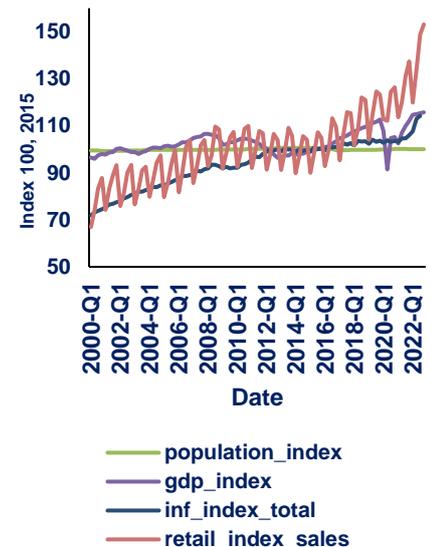
Source: Author Elaboration

Figure 44: Poland's indices chart.

Source: Author Elaboration

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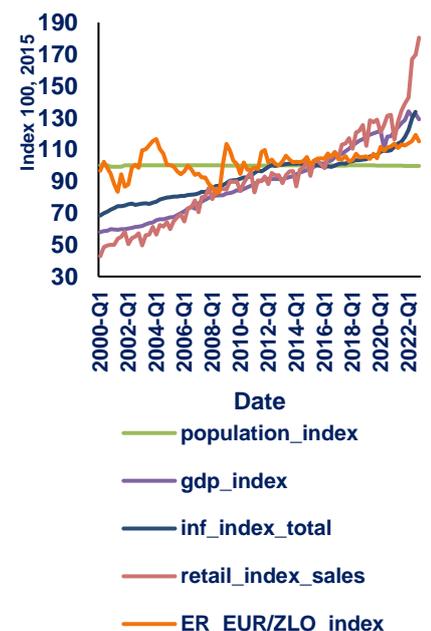
However, if the market is not perfect, and human behaviour plays a significant role in any stock's success, how can those relationships between the mentioned factors be certain, if there are big "outside" forces within the market?

Purpose of the Study

With this chapter, I intend to study the effects of macroeconomic indicators on the food retail industry's output and provide a more refined top-line revenue of JMT, and thus reducing the previous valuation's estimate error.

Literature Review

The demand for the food retail industry's output is quite stable. In theory, it should be dependent on how many people exist in each country, and how much can these afford to spend. Hence, the initial LFL growth model was built upon the use of GDP, inflation, population growth and the exchange rate's forecast (to turn Polish Zloty and Colombian Peso amounts into Euro). In this subchapter, the focus will be on reviewing existing literature of the association between macroeconomic variables and company performance. With the use of econometrics, the resulting coefficients of association between macroeconomic indicators and the food retail industry's sales will serve as an input to the model.

In the absence of relevant literature regarding industry output and macro variables, some literature regarding the effects on the stock market will be studied. The relation between macroeconomic variables and the stock market is debatable. It is important to know if, and what variables affect stock prices. Having this knowledge is valuable for investment decisions and policy stakeholders.

There are several macroeconomic factors into play:

Firstly, **money supply**. Hamburger and Kochin (1972) exposed their view on the relationship between money supply and stock market returns. They found that increases in money supply tend to be correlated with future stock market returns. This concept has 3 underlying factors. 1) Increase in money supply can be made from several ways. When the central banks purchase assets in the market, it creates pressure for interest rates to go down, and inevitably for stock prices to go up; 2) Quantitative easing or quantitative tightening pushes a message to the financial markets that is exacerbated almost instantly, and thus reinforces this relationship. Hernandez (1999), with Granger causality tests on data from Canada, Germany, Japan, US, France and the UK, demonstrated that past changes in money supply do not cause changes in current stock prices in 5 out of the 6 countries. The author argued it is due to the ability of these markets to quickly adapt to information, and as such, current changes in money supply cause current changes in stock prices, stating these markets are market efficient. Naturally, against the findings of Hamburguer and Kochin (1972); 3) Naturally, higher money supply creates a lagging inflation, revenues rise, profits rise, stock prices rise given enough time, Friedman, M. (1970).

Secondly, **inflation**. According to Friedman, M. (1970), inflation is a lagging indicator. It agrees with Keynesian theory, suggesting that when money supply increases, real demand for goods and services in the economy increases (GDP increase), but prices tend to adjust in the medium-term, reducing real demand again. The effect of money supply is only an increase in prices in the long-run. According to the previously described relationship between money supply and stock returns, these variables match in the short-run, especially in more efficient markets. So, if inflation is a lagging indicator to money supply changes, naturally a regression between stock returns and inflation has a high degree of probability of not being statistically significant. This is because when inflation is being felt, the market already incorporated the money supply changes, when these happened (which is before inflation). Papers on the matter, like Jaffe and Mandelker (1976), also demonstrate this notion. In the paper, they suggest that stock returns and inflation are negatively related, but there is a long-term relation between the two variables by expanding the timeframe of the analysis. The authors suggest that in the short run, when the anticipated inflation increases, the market interveners also expect nominal interest rates to rise, and thus cost of capital increases force stock prices to decrease. This is the notion of the Fisher formula, where nominal interest rate is the sum of real interest rate and nominal inflation. Additionally, Firth (1979), demonstrated with data since 1919 to 1979 from the UK, that the nominal inflation is positive when regressing with the nominal market returns. This opposes Jaffe and Mandelker in the short run.

Lastly, **industrial production (proxy for GDP), exchange rates and interest rates**. Ratanapakorn and Sharma (2007) studied the relationship between the US stock price index (S&P 500) and six macroeconomic variables, namely, long-term and short-term interest rates, money supply, industrial production, inflation, and exchange rates, from 1975 to 1999. The authors found that the stock prices were negatively related to the long-term interest rate but positively related to the money supply, inflation, exchange rate, and industrial production. Moreover, with the use of the Granger causality test, it suggested that the macroeconomic variables were the cause for the stock price movements in the long run, but not in the short run. This implies that changes in the macroeconomic variables affect the stock prices in the long term, but the short-term changes in the stock prices are not influenced by the macroeconomic variables.

Olomu (2015), conducted an analysis on the impact of the inflation, industrial production, money supply, exchange rate and interest rates, on the FTSE100 index, with data from the 1995-2014 period. With the use of Johansen cointegrated test, concluded that a long run relation between the variables exist. Inflation and exchange rate are positively related to the index, while industrial production, money supply and interest rate proved a negative correlation with the FTSE100. The results might appear contradicting, as money supply and inflation are directly linked according to economic theory.

Šimáková et al (2019), also studied the relation between macroeconomic indicators and the performance of companies in the Food & Drink sector. The study used correlation analysis and the Johansen cointegration test, along with the vector error correction mechanism. It aimed to investigate the impact of GDP, inflation, and interest rates on stock prices of companies within the EU. It analysed companies operating in Austria, Croatia, Cyprus, Denmark, Finland, Germany, Ireland, Italy, Lithuania, Poland, Spain, and the UK. The study findings reveal that GDP has an overall positive influence on the of stock prices on the majority of the countries, while inflation and interest rates had a negative correlation with stock prices in most countries.

Methodology

Prepositions

Food Consumer price Index will be the base for food inflation calculation. In the literature review the data was in line with economic theory, in the sense that it is can be non-significant in the short run, but there is long term causality. Sales of the food industry should be positively correlated with inflation, especially food inflation.

Real GDP, it is assumed that the higher the growth in the economy, the higher the industry's sales will be.

Population, the hypothesis is that the higher the population, the higher the food consumption. It is particularly important to Poland due to the refugee crisis resultant of the war.

Exchange rate, applicable to Poland's situation, as a non-Euro State, it is expected that if the Zloty depreciates, imports will be more expensive in Zlotys, and as such should contribute to the industry's sales.

Research Data, Collection, and Variables' Description

Food Retail Sales (FRS). Volume of sales in wholesale and retail trade, Retail sale of food, beverages and tobacco. It measures the total amount of retail sales of food,

Figure 45: Portugal's growth rates, yearly, same quarter.
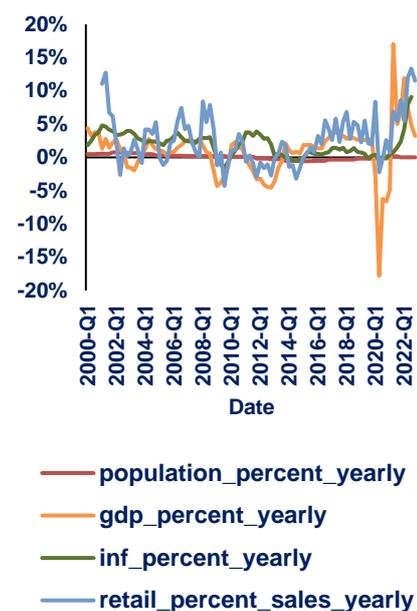
Source: Author Elaboration

Figure 46: Poland's growth rates, yearly, same quarter.
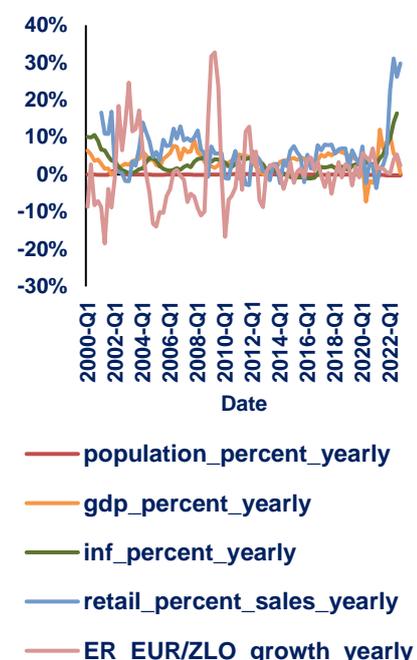
Source: Author Elaboration

beverages and tobacco in a country. Quarterly data, index, 2015=100. Data taken from the Eurostat Data Browser (2023).

Gross Domestic Product (GDP) measures the total value of goods and services produced within a country's borders during a given period. It is commonly measured at an annual or quarterly basis. It adds the value of all goods and services produced, and it includes private consumption, investments by businesses, government spending, and the difference between exports and imports. The data is extracted from the OECD database, quarterly basis, index, 2015=100.

Consumer Price Index (CPI) and Food Consumer Price Index (FCPI) measure the average price paid by consumers for a basket of goods and services. It is commonly referred as an inflation indicator in economies around the world. It includes various items, such as food, housing, clothing, transportation, and medical care. These are weighted according to its share of total consumer spending. It can be split into different categories of products, but for the purposes of this study, FCPI and overall CPI will be used. The data is extracted from the OECD Data Warehouse (2023), quarterly basis, index 2015=100.

Population (POP) measure the number of residents in each country. Historical and forward data is extracted from the United Nations, Department of Economic and Social Affairs (2022), annual basis.

Exchange Rates (ER) measures the number of Zlotys needed to change into Euro currency over time. Historical and forward data is extracted from the Refinitiv's DataStream (2023), quarterly basis.

Data Treatment

By regressing the raw index variables, the likely result is to have spurious regressions.

$$(3)\ FRS_t = \beta_0 + \beta_1 \times GDP_t + \beta_2 \times FCPI_t + \beta_3 \times POP_t + \beta_4 \times ER_t + \mu_t$$

A spurious regression occurs when variables have a common trend over the studied timeframe, not exactly cause-effect. By regressing the variables, it can lead to a high correlation coefficient, even if there is no real relationship between the variables. It can lead to false conclusions and thus false predictions. It is vital to carefully examine the data and to identify any potential issue, (Figure 43 and Figure 44). By examining both charts, it is possible to understand the long-term relation between FRS and some variables like CPI and GDP. However, it is possible to deduct seasonality within the data, especially in the FRS series. Within FRS, Q3 & Q4 of each year are the periods in which there is a peak, explained by the higher consumption due to the summer and Christmas time.

Autocorrelation (AC) and Partial Autocorrelation (PAC) coefficients, along with the variables' regression analysis, through the EViews statistical software, are available below:

Figure 47: Polish segment's price target (€/sh), according to new statistically significant coefficients.
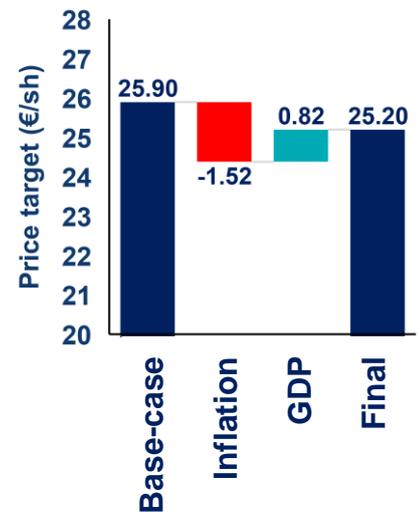
Source: Author Elaboration

Figure 48: Portuguese segment's price target (€/sh, attributable to JMT shareholders), according to new statistically significant coefficients.
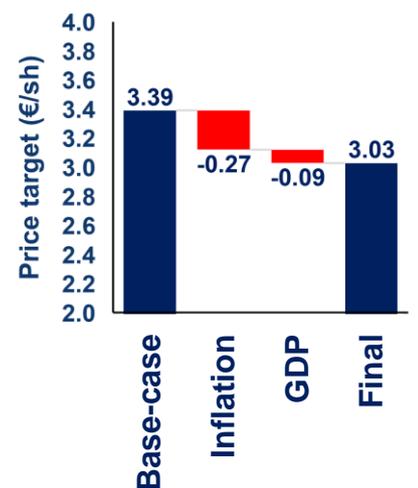
Source: Author Elaboration

Figure 49: Regression, AC and PAC analysis, Portugal.

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Dependent Variable: FRS_INDEX
Method: Least Squares
Date: 05/08/23   Time: 14:14
Sample (adjusted): 1 91
Included observations: 91 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-96.37399	322.8166	-0.298541	0.7660
GDP_INDEX	0.777649	0.124355	6.253470	0.0000
FCPI_INDEX	0.613780	0.154053	3.984219	0.0001
POP_INDEX	0.663796	3.235025	0.205190	0.8379
ER_EUR_ZLO_INDEX	-0.063213	0.091689	-0.689427	0.4924

R-squared	0.961036	Mean dependent var		90.61758
Adjusted R-squared	0.959224	S.D. dependent var		27.86155
S.E. of regression	5.626113	Akaike info criterion		6.346093
Sum squared resid	2722.171	Schwarz criterion		6.484052
Log likelihood	-283.7472	Hannan-Quinn criter.		6.401751
F-statistic	530.2931	Durbin-Watson stat		1.358129
Prob(F-statistic)	0.000000			

Date: 05/08/23 Time: 14:14
Sample (adjusted): 1 91
Included observations: 91 after adjustments

		Autocorrelation	Partial Correlation	AC	PAC	Q-Stat	Prob
	1			0.258	0.258	6.2711	0.012
	2			0.087	0.022	6.9914	0.030
	3			0.078	0.054	7.5819	0.055
	4			0.515	0.517	33.385	0.000
	5			-0.037	-0.409	33.519	0.000
	6			0.008	0.170	33.525	0.000
	7			0.096	0.125	34.449	0.000
	8			0.496	0.222	59.540	0.000
	9			-0.033	-0.147	59.654	0.000
	10			-0.086	-0.174	60.435	0.000
	11			-0.037	0.013	60.576	0.000
	12			0.359	0.144	74.395	0.000
	13			-0.151	-0.185	76.866	0.000
	14			-0.168	-0.088	79.971	0.000
	15			-0.090	-0.057	80.868	0.000
	16			0.267	0.033	88.918	0.000
	17			-0.212	-0.043	94.061	0.000
	18			-0.219	-0.107	99.634	0.000
	19			-0.160	-0.094	102.65	0.000
	20			0.176	0.021	106.34	0.000

Source: Author Elaboration

From the outputs, significant autocorrelation exists in the regressions of both countries. Through the AC and PAC, it is possible to understand that the FRS exhibits correlation with the same quarter of previous years, so seasonality with lag of 4 periods, as the AC and PAC are significant with lags of multiples of 4 periods. Additionally, the residuals follow a recognizable pattern, another indication of autocorrelation, see below:

Figure 52: Portugal's Residuals, Actual and Fitted, pre-treatment.
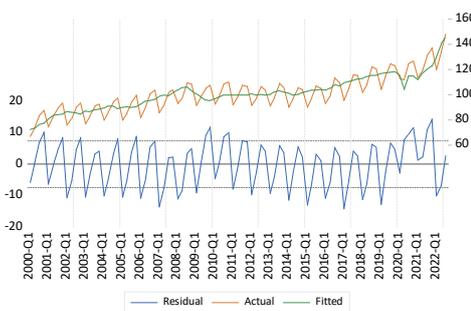
Figure 53: Poland's Residuals, Actual and Fitted, pre-treatment.
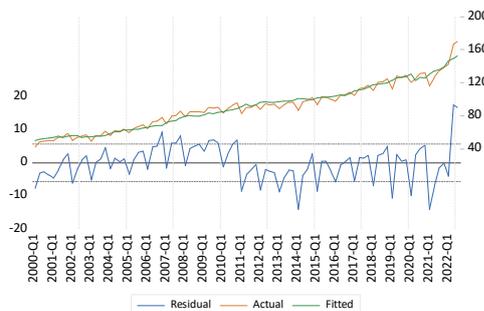
These statistical facts indicate the suspicion of autocorrelation and spurious relation (very high R^2 in regressions using the indices).

The first step to remove trend and volatility asymmetry within the data is to difference it. In this research, the exact growth rate computation will be used.

With the knowledge of the AC and PAC, (slow decay of the AC function and cut-off of the PAC function at lag 4), the data will be differences with order 4. Essentially, a SARIMA model with lag 4 (s=4), and seasonal differencing of 1 (D=1). In other words, yearly growth rate, same quarter. In Figure 45 and Figure 46, it is no longer possible to detect a clear pattern, like it was in Figure 43 and Figure 44. There is no trend or volatility changes throughout time (except for the large drop in GDP due to the crisis associated with the pandemic, and recent increase in FRS and INF due to quantitative easing and supply chain constrains).

Data Analysis

In Appendix 26, the results of the regressions with the treated data as explained in the "Data Treatment" chapter are presented.

The same process was used to examine both countries' variables.

First, the regression with all available variables:

(4) $\Delta FRS_t = \beta_0 + \beta_1 \times \Delta GDP_t + \beta_2 \times FINF_t + \beta_3 \times \Delta POP_t + \beta_4 \times \Delta ER_t + \mu_t$, with Δ representing the growth rate, in percentage.
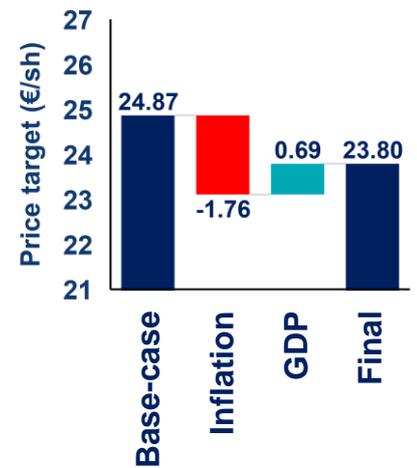
Table 3: JMT SoP's revised Price Target

EV to P	Value	(%) EV
Poland	€ 15,857	85.8%
Portugal	€ 3,007	16.3%
Pingo Doce	€ 2,245	12.1%
Recheio	€ 762	4.1%
Colombia	€ 1,394	7.5%
Others, adjustments	-€ 1,776	-9.6%
Total Enterprise Value	**€ 18,482**	**100.0%**
Non-Op assets*	€ 1,257	6.8%
Debt**	-€ 3,325	-18.0%
Contingent Liabilities***	-€ 340	-1.8%
NCI (49% Pingo Doce's EV)	-€ 1,100	-6.0%
Equity Value	**€ 14,974**	**81.0%**
Price target	**€ 23.8**	

*Cash + Investments
**All Financial Debt including Lease Liabilities
***Includes all contingent liabilities with 50% likelihood, except for the possible litigation with the Polish Office of Consumer Protection that applies over 10% of Biedronka's sales
**** Using the intrinsic value of Pingo Doce

Source: Author Elaboration

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Secondly, by examining the outputs of both countries, both POP and ER variables proved to be not significant in the models, having p-values > 5%. Thus, these were removed, staying only GDP and INF in the models.

(5) $\quad \Delta FRS_t = \beta_0 + \beta_1 \times \Delta GDP_t + \beta_2 \times FINF_t + \mu_t$

(6) Thirdly, the actual, fitted, and residuals graph is also provided, below:

Figure 54: Portugal's Residuals, Actual and Fitted, post-treatment.

Figure 55: Poland's Residuals, Actual and Fitted, post-treatment.
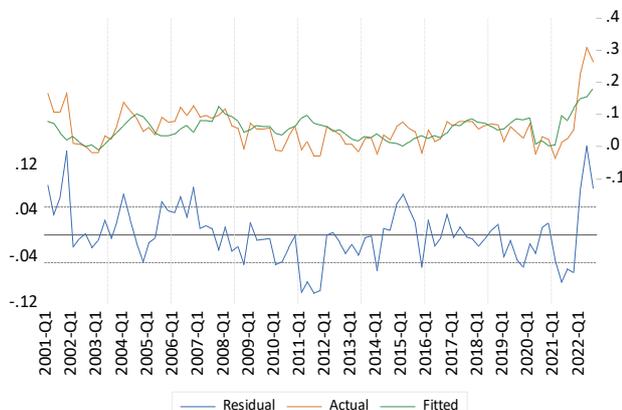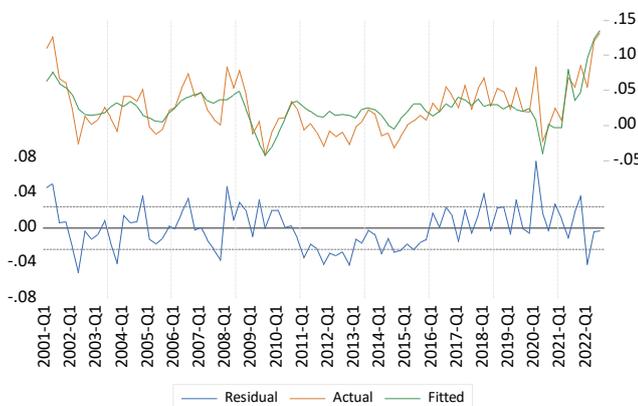
With the naked eye examination, it is now possible to check the difference of these graphs and the ones displayed in Figure 52 and Figure 53. These residuals' graphs do not follow a recognizable pattern, which is a good sign because of the autocorrelation problem.

It is also provided in Appendix 26 the AC function and PAC functions for the regressions per country. There is a stark difference between these ones and the one displayed in Figure 49 and Figure 50. The coefficients are now much smaller. On the left, there is the AC function and PAC functions with the residuals, and on the right with the residuals squared. These serve to double check the existence of a serial correlation with any specific lagged value. Although in the residuals' correlogram there are very few lagged coefficients slightly significant, this is not the case in the squared residuals' correlogram. This is a very satisfying result.

The White heteroskedasticity test was also computed for both countries. In the case of Portugal, there is no statistically significant variable explaining the squared residuals. In the case of Poland, there is one variable ($FINF^2$) that is statistically significant to explain the squared residuals. This indicates that if inflation is the major cause for volatility of the difference between the fitted and actual amounts of the FRS indicator.

Additionally, the residuals' histogram, along with the Jarque-Bera statistic, is provided. In the case of Portugal, the p-value is > 5%, indicating the residuals' normality condition holds. In the case of Poland, there is a big spike in the histogram around $u_t = 0$ making the distribution to be slightly leptokurtic and slightly positively skewed. Although not an ideal result, this could be a bigger problem if the spike were to appear in a place other than the centre of the graph at $u_t = 0$, thus, the regression is considered to still hold.

For both countries, the coefficients are positive, and < 1. This result makes economic sense, as it follows the expected hypothesis outlined in the "Hypothesis" chapter. At the same time, if real income varies 1%, food spending varies in the same direction but < 1%, meaning food is a normal good (higher income, higher spending), and inelastic (higher price, quantity demanded decreases less in percentage points, than the percentage points increase in prices, which makes total FRS increase).

These results will be used in the forecasting of the LFL growth per country of JMT, proceeding in the same way as in Equation 1 and Equation 2, in the next chapter, "Results".

Results

As outlined in Appendix 8, the LFL growth is computed considering the macroeconomic forecasts and the store count according to industry and JMT trends.

Original forecast:

(7) $LFL_n = (1 + infl) \times (1 + \Delta GDP \times \theta) \times (1 + \Delta pop) \times (1 + \Delta Fx)$, for both countries, where $\theta = 0.52$ is the elasticity of demand to GDP, extracted from Femenia (2019), excluding the Fx component for Portugal.

(8) $Sales_n = Sales\ p/sqm_{n-1} \times (1 + LFL_n) \times average\ total\ sqm$, for both countries.

Year	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Poland								
LFL growth incl. forex	5.24%	2.95%	2.22%	2.86%	2.70%	2.84%	2.84%	2.84%
Sales in Poland	19845	21275	22548	23945	25128	26137	27067	27901
FCFF	1039	1064	1153	1280	1370	1458	1534	1592
Present Value of FCFF		962	944	950	924	895	854	806
Terminal Value								9963
Price Target (€/Share)								**25.90**
Portugal								
LFL growth incl. forex	4.76%	3.56%	3.13%	2.79%	2.68%	2.73%	2.73%	2.73%
Sales in Portugal	6057	6352	6622	6862	7097	7337	7567	7785
FCFF	148	138	147	166	176	191	202	214
Present Value of FCFF		130	130	137	137	139	138	137
Terminal Value								2433
Price Target (€/Share)								**5.37**
attributable to JMT shareholders								**3.39**
SoP Price Target (€/Share)								**24.87**

Forecast with the coefficients from the regression:

(9) $LFL_n = (1 + infl \times 0.841) \times (1 + \Delta GDP \times 0.662) \times (1 + \Delta pop) \times (1 + \Delta Fx)$, for Poland.

(10) $LFL_n = (1 + infl \times 0.693) \times (1 + \Delta GDP \times 0.411) \times (1 + \Delta pop)$, for Portugal.

(11) $Sales_n = Sales\ p/sqm_{n-1} \times (1 + LFL_n) \times average\ total\ sqm$, for both countries.

Year	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Poland								
LFL growth incl. forex	3.22%	2.72%	2.19%	2.93%	2.65%	2.80%	2.80%	2.80%
Sales in Poland	19464	20820	22061	23442	24589	25567	26466	27271
FCFF	980	1031	1122	1249	1336	1422	1496	1553
Present Value of FCFF		932	918	927	901	873	833	786
Terminal Value								9689
Price Target (€/Share)								**25.20**
Portugal								
LFL growth incl. forex	3.26%	2.50%	2.20%	1.95%	1.87%	1.90%	1.90%	1.90%
Sales in Portugal	5971	6198	6402	6580	6751	6923	7082	7228
FCFF	135	131	138	154	161	173	180	188
Present Value of FCFF		123	122	128	125	126	123	121
Terminal Value								2139
Price Target (€/Share)								**4.78**
attributable to JMT shareholders								**3.03**
SoP Price Target (€/Share)								**23.80**

With the afore mentioned results, and the illustrations on Figure 47, Figure 48, and Figure 51, the valuation of JMT drops 4.4% from the original €24.9/sh to €23.8/sh at 2023YE.

This is partly due to a lower INF coefficient, as originally a unit coefficient was assumed, and now coefficients lower than 1 were assumed per country (0.84 in Poland and 0.69 in Portugal, an indication that the market is more mature in Portugal). On the other hand, the GDP coefficients used improved the valuation. Originally, a coefficient for the

elasticity of demand to income of 0.52 was used, in accordance with Femenia (2019), for both countries. With the coefficients provided by the analysis (0.66 in Poland and 0.41 in Portugal), it helped to reinforce the Polish segment's intrinsic value for JMT's shareholders, while pushing down the Portuguese segment's intrinsic value.

By means of comparison between Table 2 and Table 3, it is possible to check the EV and EV contribution per segment. After the revision, the Polish segment gained more weight in JMT's intrinsic value, moving from 84.7% to 85.8%. The Portuguese segment lost a bit of its relevance, moving from 17.6% to 16.3%.

Sensitivity Analysis

Below, sensitivity analysis on the impact of the coefficients (Equation 9 and 10), in JMT's price-target is provided:

Table 4: Sensitivity Analysis on the Polish coefficients on JMT's price-target.

Polish GDP coefficient	Polish Inflation Coefficient							
	0.65	0.70	0.75	0.80	0.841	0.90	0.95	1.00
0.45	€ 20.98	€ 21.41	€ 21.85	€ 22.30	€ 22.67	€ 23.20	€ 23.67	€ 24.13
0.50	€ 21.22	€ 21.66	€ 22.10	€ 22.55	€ 22.93	€ 23.47	€ 23.94	€ 24.41
0.55	€ 21.47	€ 21.91	€ 22.36	€ 22.82	€ 23.19	€ 23.74	€ 24.21	€ 24.69
0.60	€ 21.72	€ 22.17	€ 22.62	€ 23.08	€ 23.46	€ 24.02	€ 24.49	€ 24.98
0.662	€ 22.03	€ 22.49	€ 22.94	€ 23.41	€ 23.80	€ 24.36	€ 24.84	€ 25.33
0.70	€ 22.23	€ 22.69	€ 23.15	€ 23.62	€ 24.01	€ 24.57	€ 25.06	€ 25.55
0.75	€ 22.49	€ 22.95	€ 23.41	€ 23.89	€ 24.28	€ 24.85	€ 25.34	€ 25.84
0.80	€ 22.75	€ 23.21	€ 23.68	€ 24.16	€ 24.56	€ 25.14	€ 25.63	€ 26.14
0.85	€ 23.01	€ 23.48	€ 23.96	€ 24.44	€ 24.84	€ 25.42	€ 25.92	€ 26.43
0.90	€ 23.27	€ 23.75	€ 24.23	€ 24.72	€ 25.12	€ 25.71	€ 26.22	€ 26.73
0.95	€ 23.54	€ 24.02	€ 24.51	€ 25.00	€ 25.41	€ 26.00	€ 26.52	€ 27.04
1.00	€ 23.81	€ 24.30	€ 24.79	€ 25.28	€ 25.70	€ 26.30	€ 26.82	€ 27.34

Table 5: Sensitivity Analysis on the Portuguese coefficients on JMT's price-target.

Portuguese GDP coefficient	Portuguese Inflation Coefficient							
	0.55	0.60	0.65	0.693	0.75	0.80	0.90	1.00
0.25	€ 23.58	€ 23.62	€ 23.66	€ 23.69	€ 23.74	€ 23.78	€ 23.87	€ 23.96
0.30	€ 23.61	€ 23.65	€ 23.69	€ 23.73	€ 23.77	€ 23.82	€ 23.90	€ 23.99
0.35	€ 23.64	€ 23.68	€ 23.72	€ 23.76	€ 23.81	€ 23.85	€ 23.93	€ 24.02
0.40	€ 23.67	€ 23.71	€ 23.75	€ 23.79	€ 23.84	€ 23.88	€ 23.97	€ 24.06
0.411	€ 23.68	€ 23.72	€ 23.76	€ 23.80	€ 23.84	€ 23.89	€ 23.97	€ 24.06
0.45	€ 23.70	€ 23.74	€ 23.78	€ 23.82	€ 23.87	€ 23.91	€ 24.00	€ 24.09
0.50	€ 23.73	€ 23.77	€ 23.82	€ 23.85	€ 23.90	€ 23.95	€ 24.03	€ 24.12
0.60	€ 23.79	€ 23.84	€ 23.88	€ 23.92	€ 23.97	€ 24.01	€ 24.10	€ 24.19
0.70	€ 23.86	€ 23.90	€ 23.94	€ 23.98	€ 24.03	€ 24.08	€ 24.17	€ 24.26
0.80	€ 23.92	€ 23.97	€ 24.01	€ 24.05	€ 24.10	€ 24.15	€ 24.24	€ 24.33
0.90	€ 23.99	€ 24.03	€ 24.08	€ 24.12	€ 24.17	€ 24.22	€ 24.31	€ 24.41
1.00	€ 24.05	€ 24.10	€ 24.15	€ 24.19	€ 24.24	€ 24.29	€ 24.38	€ 24.48

Due to the nature of the intrinsic value distribution within the group, the coefficients regarding Poland are more sensitive than the coefficients regarding Portugal. If the Polish inflation coefficient were to be 0.7 or the Polish GDP coefficient were to be 0.5, the recommendation would change to a HOLD. While in the case of Portugal's coefficients, small alterations of the coefficients would not alter the recommendation.

Because the Polish segment is the one with the most significance within the group, it is also important to grasp what would now be the impact of a shift in the forecasted Inflation and GDP (Figure 56). If there would be a shift of -0.75% on all of the Polish GDP forecasts, the group's price-target would change to €22.7/sh, a HOLD

recommendation. But if the change were to be +1.25% the group's price-target would change to €25.7/sh, which would turn out to be a STRONG BUY.

Discussion

The regressions made per country considered Gross Domestic Product, Consumer Price Index, Population and Exchange Rates (for the Polish case) as independent variables. These were used in the attempt of explaining Food Retail Industry's Sales, and then use the coefficients as inputs in the model.

In this subchapter, a comparison will be done between the Results and the Literature Review.

This study's finding regarding GDP and inflation are in accordance with Ratanapakorn and Sharma (2007) even in the short run, as both indicators exhibit a positive correlation with returns.

It agrees with Firth (1979), as the author explains that inflation is a major predictor of nominal stock returns.

However, it goes against the findings in Jaffe and Mandelker (1976), which states there is no short-term relation between inflation and stock returns, but there is a long-term relationship between them.

Figure 56: JMT's price target (€/sh), contingent on Polish GDP forecast parallel shift.

Source: Author Elaboration

In Olomu (2015), the author regressed the variables on the FTSE100 index. The conclusion was a negative relationship with the Industrial Production Index (as a proxy for GDP), a positive relationship with CPI, and a unidirectional causality from the FTSE100 to Exchange Rates. The author's findings contrast with the findings in the present paper, as both Inflation and GDP are statistically significant in explaining the food retail industry's output, while exchange rate is not. This comparison is of course not on the same level, having to account for the fact that the author's dependent variable is market based, and in this research is output based.

When comparing to the paper specific of the Food & Drink sector, Šimáková et al (2019), the findings in this additional chapter are in line with the paper's GDP conclusions, but against its findings in terms of inflation. The author concludes with a negative association between inflation and the sector's returns, while in this research there is a statistically significant positive correlation between inflation and the industry's output.

Femenia (2019) concluded that the Income elasticity (GDP coefficient in the model), was 0.52 for European Union countries, 0.34 for "Europe Other" and 0.64 for "Former Soviet Union". In this research, the GDP (proxy for income) coefficients are 0.66 for Poland and 0.41 for Portugal. Considering that Poland is part of the European Union and was under the influence, but not a part of the "Former Soviet Union", the 0.66 coefficient for Poland is in line with the findings in Femenia (2019). Portugal as a European Union member, the 0.41 coefficient in this research also is in line with the 0.52 present in Femenia (2019), which is the coefficient for the entire European Union.

Conclusion

The goal of this research was to provide a deeper understanding of how the industry evolved over time, and which macroeconomic variables better explain the Food Retail industry's Sales. Then, considering JMT is the operator of very important supermarket chains both in Portugal and Poland, already relatively stable, the key assumption is that from now on, these chains will essentially grow with the economy and due to number of stores growth. In 2022, Biedronka's market share was around 27% in Poland, while 23% in Portugal through Pingo Doce.

With this econometric top-down approach per country, the sales forecast has a scientific approach, and it can be sustained as shown previously. It can be noted that a +10 bps shift in the Polish GDP (the variable with the highest impact in JMT's price target), causes the price target to increase +62 bps, while a -10 bps shift in the macroeconomic indicator would decrease the price target -61 bps.

After this research, JMT's price target decreased from €24.9/sh to €23.8/sh at 2023 YE (4.4% decrease), which corresponds to an upside reduction from 22% to 17.4%.

According to our classification of JMT as being a medium-low risk, the BUY recommendation still holds, has the upside threshold sits at 12.5%. These results reinforce the robustness of the initial recommendation.
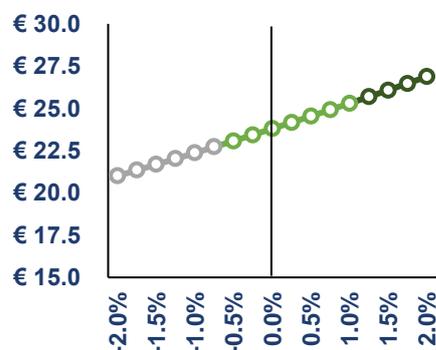
Appendices

Appendix 1: Statement of Financial Position

CONSOLIDATED BALANCE SHEET (€M)	2020	2021	2022YE	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Tangible assets	**3817**	**3993**	**4506**	**4949**	**5384**	**5794**	**6168**	**6502**	**6786**	**7020**	**7195**
Intangible assets	**757**	**757**	**854**	**938**	**1021**	**1099**	**1169**	**1233**	**1287**	**1331**	**1364**
Investment property	9	8	8	8	8	8	8	8	8	8	8
Right-of-use assets	2167	2248	2417	2617	2831	3054	3285	3520	3753	3983	4206
Biological assets	3	5	6	7	7	8	8	9	9	9	10
Investments in joint ventures and associates	6	13	13	13	13	13	13	13	13	13	13
Other financial investments (avaliable0for0sale)	1	2	19	19	19	19	19	19	19	19	19
Trade debtors, accrued income and deferred costs	70	57	136	152	163	174	185	195	204	213	220
Deferred tax assets	163	175	175	175	175	175	175	175	175	175	175
Total non-current assets	**6994**	**7256**	**8134**	**8877**	**9622**	**10343**	**11031**	**11673**	**12255**	**12770**	**13209**
Inventories	974	1108	1323	1472	1586	1689	1798	1894	1980	2058	2126
Biological assets	5	7	8	9	10	11	11	12	13	13	13
Income tax receivable	17	23	23	23	23	23	23	23	23	23	23
Trade debtors, accrued income and deferred costs	393	479	552	614	662	706	752	793	829	862	891
Cash and cash equivalents	1041	1493	1257	1294	1287	1289	1366	1467	1600	1762	1965
Total current assets	**2434**	**3111**	**3164**	**3414**	**3569**	**3720**	**3951**	**4189**	**4446**	**4719**	**5019**
Total assets	**9428**	**10368**	**11298**	**12291**	**13191**	**14063**	**14982**	**15863**	**16700**	**17489**	**18228**
Share capital	629	629	629	629	629	629	629	629	629	629	629
Share premium	22	22	22	22	22	22	22	22	22	22	22
Own shares	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6	-6
Other reserves	-129	-140	-140	-140	-140	-140	-140	-140	-140	-140	-140
Retained earnings	1491	1773	1877	1987	2153	2325	2515	2712	2910	3085	3258
Non-controlling interests	249	254	263	268	276	283	292	301	310	318	326
Total shareholders' equity	**2257**	**2532**	**2645**	**2760**	**2933**	**3113**	**3312**	**3518**	**3725**	**3908**	**4089**
Borrowings	364	347	273	298	323	348	371	392	412	429	444
Lease liabilities	1897	1993	2141	2313	2496	2689	2890	3097	3306	3516	3725
Employee benefits	70	70	70	70	70	70	70	70	70	70	70
Provisions for risks and contingencies	33	34	34	34	34	34	34	34	34	34	34
Deferred tax liabilities	66	66	66	66	66	66	66	66	66	66	66
Total non-current liabilities	**2430**	**2511**	**2585**	**2782**	**2991**	**3207**	**3432**	**3660**	**3889**	**4116**	**4340**
Borrowings	160	113	242	265	287	308	329	348	365	381	394
Lease liabilities	377	394	423	457	494	532	571	612	654	695	736
Trade creditors, accrued costs and deferred income	4154	4771	5355	5981	6440	6856	7291	7678	8021	8342	8622
Income tax payable	50	47	47	47	47	47	47	47	47	47	47
Total current liabilities	**4741**	**5325**	**6068**	**6750**	**7267**	**7743**	**8238**	**8685**	**9087**	**9465**	**9799**
Total shareholders' equity and liabilities	**9428**	**10368**	**11298**	**12291**	**13191**	**14063**	**14982**	**15863**	**16700**	**17489**	**18228**

Appendix 2: Income Statement

CONSOLIDATED INCOME STATEMENT (€M)	2020	2021	2022YE	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Sales	**19293**	**20889**	**25365**	**28246**	**30451**	**32456**	**34562**	**36438**	**38112**	**39637**	**40972**
Cost of Sales	**-15047**	**-16366**	**-19974**	**-22226**	**-23945**	**-25503**	**-27139**	**-28592**	**-29885**	**-31059**	**-32083**
Cost of goods sold, and materials consumed	-15025	-16156	-19720	-21945	-23644	-25184	-26800	-28237	-29515	-30676	-31689
Changes in inv. of finished goods and work in progress	3	7	9	10	11	11	12	13	13	14	14
Net cash discount and interest paid to suppliers	23	-17	30	33	36	38	40	43	45	46	48
Electronic payment commissions	-42	-47	-49	-55	-59	-63	-67	-71	-74	-77	-80
Other supplementary costs	-6	-153	-243	-269	-288	-305	-324	-340	-353	-366	-377
Gross Profit	**4246**	**4523**	**5391**	**6019**	**6507**	**6953**	**7423**	**7846**	**8228**	**8579**	**8889**
Distribution and Administrative Costs	**-3559**	**-3682**	**-4329**	**-4899**	**-5263**	**-5594**	**-5934**	**-6236**	**-6501**	**-6777**	**-7020**
Supplies and services	-751	-758	-992	-1190	-1252	-1302	-1352	-1389	-1414	-1471	-1521

Advertising and Rents costs	-113	-126	-172	-192	-207	-221	-235	-248	-259	-269	-279
Staff costs	-1751	-1864	-2162	-2407	-2595	-2766	-2945	-3105	-3248	-3378	-3492
Transportation costs	-201	-233	-271	-302	-325	-347	-369	-389	-407	-423	-437
Depreciation and amortization of tangibles and intangibles assets	-418	-425	-425	-479	-526	-573	-616	-656	-692	-722	-747
Depreciation of right-of-use assets	-316	-320	-318	-342	-370	-401	-432	-465	-498	-531	-564
Profit/loss tangible & intangible assets and others	-9	44	11	12	13	14	15	16	17	17	18
Other Operating Profits/Losses	-51	-34	-36	-41	-44	-47	-50	-52	-55	-57	-59
Losses from organizational restructuring programs	-16	-14	-13	-15	-16	-17	-18	-19	-20	-21	-22
Employees exceptional recognition	-19	-19	-23	-26	-28	-30	-31	-33	-35	-36	-37
Operating Profit (EBIT)	**636**	**807**	**1026**	**1079**	**1200**	**1312**	**1439**	**1558**	**1672**	**1745**	**1810**
Net Financial Costs	-180	-154	-171	-186	-196	-207	-216	-226	-242	-257	-273
Net loans interest expense	-23	-18	-36	-41	-39	-37	-33	-29	-31	-32	-34
Leases interest expense	-127	-130	-137	-148	-160	-172	-185	-199	-214	-228	-243
EBT	**459**	**652**	**855**	**893**	**1004**	**1106**	**1222**	**1332**	**1430**	**1487**	**1537**
Income Tax	-136	-168	-231	-241	-271	-299	-330	-360	-386	-402	-415
Net Income	**323**	**484**	**624**	**652**	**733**	**807**	**892**	**972**	**1044**	**1086**	**1122**

Appendix 3: Cash Flow Statement

CONSOLIDATED CASH FLOW STATEMENT (€M)	2020	2021	2022YE	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Net results	**312**	**463**	**597**	**624**	**701**	**772**	**854**	**930**	**999**	**1039**	**1073**
Non-controlling interests	11	21	27	28	32	35	39	42	45	47	49
Income tax	136	168	231	241	271	299	330	360	386	402	415
Depreciations and amortisations	734	745	743	821	897	973	1048	1121	1190	1253	1310
Net financial costs	180	154	171	186	196	207	216	226	242	257	273
Operating cash flow before changes in working capital	1378	1555	1769	1901	2097	2286	2487	2679	2861	2997	3120
Inventories	14	-148	-217	-151	-115	-104	-110	-97	-87	-79	-69
Trade debtors, accrued income and deferred costs	23	-4	-152	-78	-60	-54	-57	-51	-45	-41	-36
Trade creditors, accrued costs and deferred income	205	527	583	625	459	417	435	386	343	321	280
Cash generated from operations	1623	1931	1983	2297	2381	2544	2756	2917	3073	3198	3295
Income taxes paid	-174	-174	-231	-241	-271	-299	-330	-360	-386	-402	-415
Cash flow from operating activities	**1449**	**1756**	**1752**	**2056**	**2110**	**2245**	**2426**	**2557**	**2686**	**2796**	**2881**
Acquisition of tangible and intangible assets	-514	-584	-1035	-1006	-1044	-1061	-1061	-1053	-1030	-999	-955
Others	25	-32	-16	1	1	1	1	1	1	2	2
Cash Flow from Investing	**-488**	**-617**	**-1051**	**-1005**	**-1043**	**-1059**	**-1060**	**-1052**	**-1028**	**-998**	**-953**
Loans interest paid	-28	-22	-35	-40	-38	-36	-32	-28	-29	-31	-32
Leases interest paid	-127	-130	-137	-148	-160	-172	-185	-199	-214	-228	-243
Net change in loans	-146	-40	56	47	47	46	44	41	37	33	28
Leases paid	-274	-286	-310	-337	-364	-393	-422	-452	-481	-509	-536
Dividends paid:	-232	-198	-511	-538	-559	-628	-693	-767	-837	-902	-942
To common shareholders	-217	-181	-493	-514	-535	-601	-663	-733	-801	-863	-901
Non Controlling Interests	-15	-17	-18	-23	-24	-27	-30	-33	-36	-39	-41
Cash flow from financing activities	**-807**	**-676**	**-937**	**-1015**	**-1074**	**-1183**	**-1289**	**-1405**	**-1525**	**-1637**	**-1724**
Net changes in cash and cash equivalents	153	463	-236	37	-7	3	77	101	133	161	203
Cash and cash equivalents at the end of period	**1041**	**1493**	**1257**	**1294**	**1287**	**1289**	**1366**	**1467**	**1600**	**1762**	**1965**

Appendix 4: Key Financial Ratios

Financial Analysis	2020	2021	2022YE	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Activity											
Inventory turnover	15	16	16	16	15	15	15	15	15	15	15
DIO (Days of Inventory Outstanding)	24	24	22	23	24	24	24	24	24	24	24
DSO (Days Sales Outstanding)	9	9	9	9	10	10	10	10	10	10	10
DPO (Days Payable Outstanding)	101	100	93	93	95	95	95	96	96	96	97
DPO (short term)	80	77	72	74	75	75	75	76	76	76	76
WC	-3165	-3393	-3757	-4142	-4532	-4852	-5165	-5470	- 746	-6002	-6240
Fixed asset turnover	3.4	3.4	3.4	3.5	3.4	3.4	3.4	3.3	3.3	3.3	3.3
Total asset turnover	2.3	2.3	2.3	2.4	2.4	2.4	2.4	2.4	2.3	2.3	2.3
Liquidity											
Current ratio	0.5	0.6	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Quick ratio	0.3	0.4	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Cash ratio	0.2	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2
CCC	-46	-45	-41	-41	-42	-42	-42	-42	-42	-42	-42
Solvency											
Debt											
Debt-to-IC	0.6	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.6	0.6
Debt-to-equity	1.3	1.2	1.1	1.2	1.2	1.2	1.3	1.3	1.3	1.3	1.3
Net Debt-to-EBITDA	1.4	1.0	0.9	1.0	1.0	1.1	1.1	1.1	1.1	1.1	1.1
Coverage											
Interest Coverage	4.3	5.5	6.0	5.8	6.1	6.3	6.6	6.9	6.9	6.7	6.6
Profitability											
Return on Sales											
Gross profit margin	22%	22%	21%	21%	21%	21%	21%	22%	22%	22%	22%
Operating profit margin	3%	4%	4%	4%	4%	4%	4%	4%	4%	4%	4%
Net profit margin	2%	2%	2%	2%	2%	2%	3%	3%	3%	3%	3%
Return on Investment											
ROA	6.6%	8.2%	9.5%	9.2%	9.4%	9.6%	9.9%	10.1%	10.3%	10.2%	10.1%
ROIC	6.2%	9.3%	11.2%	11.0%	11.6%	11.9%	12.3%	12.6%	12.7%	12.5%	12.2%
ROE	14.4%	20.2%	23.7%	23.4%	25.1%	26.1%	27.2%	28.0%	28.4%	28.0%	27.7%
Dividend related											
Div. payout	72%	41%	82%	82%	76%	78%	78%	79%	80%	83%	84%

Appendix 5: Common-Size Statement of Financial Position

BALANCE SHEET (COMMON SIZE)	2020	2021	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Tangible assets	40.5%	38.5%	39.9%	40.3%	40.8%	41.2%	41.2%	41.0%	40.6%	40.1%	39.5%
Intangible assets	8.0%	7.3%	7.6%	7.6%	7.7%	7.8%	7.8%	7.8%	7.7%	7.6%	7.5%
Right-of-use assets	23.0%	21.7%	21.4%	21.3%	21.5%	21.7%	21.9%	22.2%	22.5%	22.8%	23.1%
Deferred tax assets	1.7%	1.7%	1.5%	1.4%	1.3%	1.2%	1.2%	1.1%	1.0%	1.0%	1.0%
Others	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total non-current assets	74.2%	70.0%	72.0%	72.2%	72.9%	73.6%	73.6%	73.6%	73.4%	73.0%	72.5%
Inventories	10.3%	10.7%	11.7%	12.0%	12.0%	12.0%	12.0%	11.9%	11.9%	11.8%	11.7%
Trade debtors, accrued income and deferred costs	4.2%	4.6%	4.9%	5.0%	5.0%	5.0%	5.0%	5.0%	5.0%	4.9%	4.9%
Cash and cash equivalents	11.0%	14.4%	11.1%	10.5%	9.8%	9.2%	9.1%	9.2%	9.6%	10.1%	10.8%
Others	0.2%	0.3%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Total current assets	25.8%	30.0%	28.0%	27.8%	27.1%	26.4%	26.4%	26.4%	26.6%	27.0%	27.5%
Total assets	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Share capital	6.7%	6.1%	5.6%	5.1%	4.8%	4.5%	4.2%	4.0%	3.8%	3.6%	3.5%
Share premium	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
Own shares	-0.1%	-0.1%	-0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Other reserves	-1.4%	-1.4%	-1.2%	-1.1%	-1.1%	-1.0%	-0.9%	-0.9%	-0.8%	-0.8%	-0.8%
Retained earnings	15.8%	17.1%	16.6%	16.2%	16.3%	16.5%	16.8%	17.1%	17.4%	17.6%	17.9%
SE before non-controlling interests	21.3%	22.0%	21.1%	20.3%	20.1%	20.1%	20.2%	20.3%	20.4%	20.5%	20.6%
Non-controlling interests	2.6%	2.4%	2.3%	2.2%	2.1%	2.0%	1.9%	1.9%	1.9%	1.8%	1.8%
Total shareholders' equity	23.9%	24.4%	23.4%	22.5%	22.2%	22.1%	22.1%	22.2%	22.3%	22.3%	22.4%
Borrowings	3.9%	3.3%	2.4%	2.4%	2.5%	2.5%	2.5%	2.5%	2.5%	2.5%	2.4%

Lease liabilities	20.1%	19.2%	18.9%	18.8%	18.9%	19.1%	19.3%	19.5%	19.8%	20.1%	20.4%
Employee benefits	0.7%	0.7%	0.6%	0.6%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%
Provisions for risks and contingencies	0.4%	0.3%	0.3%	0.3%	0.3%	0.2%	0.2%	0.2%	0.2%	0.2%	0.2%
Deferred tax liabilities	0.7%	0.6%	0.6%	0.5%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.4%
Total non-current liabilities	25.8%	24.2%	22.9%	22.6%	22.7%	22.8%	22.9%	23.1%	23.3%	23.5%	23.8%
Borrowings	1.7%	1.1%	2.1%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
Lease liabilities	4.0%	3.8%	3.7%	3.7%	3.7%	3.8%	3.8%	3.9%	3.9%	4.0%	4.0%
Trade creditors, accrued costs and deferred income	44.1%	46.0%	47.4%	48.7%	48.8%	48.8%	48.7%	48.4%	48.0%	47.7%	47.3%
Income tax payable	0.5%	0.5%	0.4%	0.4%	0.4%	0.3%	0.3%	0.3%	0.3%	0.3%	0.3%
Total current liabilities	50.3%	51.4%	53.7%	54.9%	55.1%	55.1%	55.0%	54.7%	54.4%	54.1%	53.8%
Total shareholders' equity and liabilities	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

Appendix 6: Common-Size Income Statement

INCOME STATEMENT (COMMON SIZE)	2020	2021	2022E	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Sales	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Cost of Sales	-78.0%	-78.3%	-78.7%	-78.7%	-78.6%	-78.6%	-78.5%	-78.5%	-78.4%	-78.4%	-78.3%
COGS and materials consumed	-77.9%	-77.3%	-77.7%	-77.7%	-77.6%	-77.6%	-77.5%	-77.5%	-77.4%	-77.4%	-77.3%
Net cash discount and interest paid to suppliers	0.1%	-0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Electronic payment commissions	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%	-0.2%
Other supplementary costs	0.0%	-0.7%	-1.0%	-1.0%	-0.9%	-0.9%	-0.9%	-0.9%	-0.9%	-0.9%	-0.9%
Gross Profit	22.0%	21.7%	21.3%	21.3%	21.4%	21.4%	21.5%	21.5%	21.6%	21.6%	21.7%
Distribution and Administrative Costs	-18.4%	-17.6%	-17.1%	-17.3%	-17.3%	-17.2%	-17.2%	-17.1%	-17.1%	-17.1%	-17.1%
Supplies and services	-3.9%	-3.6%	-3.9%	-4.2%	-4.1%	-4.0%	-3.9%	-3.8%	-3.7%	-3.7%	-3.7%
Advertising costs	-0.5%	-0.5%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%
Rents	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Advertising and Rents costs	-0.6%	-0.6%	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%
Staff costs	-9.1%	-8.9%	-8.5%	-8.5%	-8.5%	-8.5%	-8.5%	-8.5%	-8.5%	-8.5%	-8.5%
Transportation costs	-1.0%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%
Depreciation and amortisation of tangibles and intangibles assets	-2.2%	-2.0%	-1.7%	-1.7%	-1.7%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%	-1.8%
Depreciation of right-of-use assets	-1.6%	-1.5%	-1.3%	-1.2%	-1.2%	-1.2%	-1.3%	-1.3%	-1.3%	-1.3%	-1.4%
Other Operating Profits/Losses	-0.3%	-0.2%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Losses from organizational restructuring programmes	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Employees exceptional recognition	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Operating Profit (EBIT)	3.3%	3.9%	4.0%	3.8%	3.9%	4.0%	4.2%	4.3%	4.4%	4.4%	4.4%
Net Financial Costs	-0.9%	-0.7%	-0.7%	-0.7%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.7%
Net loans interest expense	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Loans interest expense	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%
Leases interest expense	-0.7%	-0.6%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.5%	-0.6%	-0.6%	-0.6%
EBT	2.4%	3.1%	3.4%	3.2%	3.3%	3.4%	3.5%	3.7%	3.8%	3.8%	3.8%
Income Tax	-0.7%	-0.8%	-0.9%	-0.9%	-0.9%	-0.9%	-1.0%	-1.0%	-1.0%	-1.0%	-1.0%
Net Income	1.7%	2.3%	2.5%	2.3%	2.4%	2.5%	2.6%	2.7%	2.7%	2.7%	2.7%

Appendix 7: Common-Size Cash Flow Statement

CASH FLOW STATEMENT (COMMON SIZE)	2020	2021	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Net results	21.5%	32.0%	41.2%	43.0%	48.4%	53.3%	58.9%	64.2%	68.9%	71.7%	74.1%
Non-controlling interests	0.8%	1.4%	1.9%	2.0%	2.2%	2.4%	2.7%	2.9%	3.1%	3.3%	3.4%
Income tax	9.4%	11.6%	15.9%	16.6%	18.7%	20.6%	22.8%	24.8%	26.6%	27.7%	28.6%
Depreciations and amortization	50.7%	51.4%	51.3%	56.7%	61.9%	67.2%	72.4%	77.4%	82.1%	86.5%	90.4%
Net financial costs	12.4%	10.6%	11.8%	12.9%	13.6%	14.3%	14.9%	15.6%	16.7%	17.8%	18.8%
Operating cash flow before changes in working capital	95.1%	107.3%	122.1%	131.2%	144.7%	157.8%	171.7%	184.9%	197.5%	206.9%	215.3%
Inventories	1.0%	-10.2%	-15.0%	-10.4%	-7.9%	-7.2%	-7.6%	-6.7%	-6.0%	-5.4%	-4.7%
Trade debtors, accrued income and deferred costs	1.6%	-0.3%	-10.5%	-5.4%	-4.1%	-3.8%	-3.9%	-3.5%	-3.1%	-2.9%	-2.5%
Trade creditors, accrued costs and deferred income	14.1%	36.4%	40.3%	43.2%	31.7%	28.8%	30.0%	26.7%	23.7%	22.1%	19.4%
Cash generated from operations	112.0%	133.3%	136.9%	158.5%	164.3%	175.5%	190.2%	201.3%	212.0%	220.7%	227.4%
Income taxes paid	-12.0%	-12.0%	-15.9%	-16.6%	-18.7%	-20.6%	-22.8%	-24.8%	-26.6%	-27.7%	-28.6%
Cash flow from operating activities	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%
Acquisition of tangible and intangible assets	-35.5%	-33.3%	-59.1%	-48.9%	-49.5%	-47.2%	-43.7%	-41.2%	-38.3%	-35.7%	-33.1%
Others	1.7%	-1.8%	-0.9%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Cash Flow from Investing	-33.7%	-35.1%	-60.0%	-48.9%	-49.4%	-47.2%	-43.7%	-41.1%	-38.3%	-35.7%	-33.1%
Loans interest paid	-1.9%	-1.3%	-2.0%	-1.9%	-1.8%	-1.6%	-1.3%	-1.1%	-1.1%	-1.1%	-1.1%
Leases interest paid	-8.8%	-7.4%	-7.8%	-7.2%	-7.6%	-7.7%	-7.6%	-7.8%	-8.0%	-8.2%	-8.4%
Net change in loans	-10.1%	-2.3%	3.2%	2.3%	2.2%	2.0%	1.8%	1.6%	1.4%	1.2%	1.0%
Leases paid	-18.9%	-16.3%	-17.7%	-16.4%	-17.3%	-17.5%	-17.4%	-17.7%	-17.9%	-18.2%	-18.6%
Dividends paid:	-16.0%	-11.3%	-29.2%	-26.1%	-26.5%	-28.0%	-28.6%	-30.0%	-31.2%	-32.3%	-32.7%
To common shareholders	-15.0%	-10.3%	-28.1%	-25.0%	-25.3%	-26.8%	-27.3%	-28.7%	-29.8%	-30.9%	-31.3%
Non-Controlling Interests	-1.0%	-1.0%	-1.0%	-1.1%	-1.1%	-1.2%	-1.2%	-1.3%	-1.4%	-1.4%	-1.4%
Cash flow from financing activities	-55.7%	-38.5%	-53.5%	-49.3%	-50.9%	-52.7%	-53.1%	-54.9%	-56.8%	-58.5%	-59.9%
Net changes in cash and cash equivalents	10.6%	26.4%	-13.5%	1.8%	-0.3%	0.1%	3.2%	3.9%	5.0%	5.8%	7.1%
Cash and cash equivalents at the end of period	71.8%	85.0%	71.7%	62.9%	61.0%	57.4%	56.3%	57.4%	59.6%	63.0%	68.2%

Appendix 8: Forecasting Assumptions

Balance Sheet Assumptions	Unit	2022YE	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	Note
Operating Assets											
PP&E	%NFA	57,9%	58,1%	58,2%	58,2%	58,0%	57,7%	57,3%	56,9%	56,3%	PP&E computed per banner, split into maintenance and expansion.
Right-of-use Assets	%NFA	31,0%	30,7%	30,6%	30,7%	30,9%	31,3%	31,7%	32,3%	32,9%	RoU new contracts grow in accordance to rent expectations, mainly affected by inflation
Intangible Assets	%NFA	11,0%	11,0%	11,0%	11,0%	11,0%	10,9%	10,9%	10,8%	10,7%	Intangibles CAPEX grows at PP&E growth rate
Trade receivables	DSO	10	10	10	10	10	10	10	10	10	Average 2016-2021, Sales base
Inventories	DIO	24	24	24	24	24	24	24	24	24	Average 2016-2021, COGS base
Biological Assets	€M	14	16	17	18	19	21	21	22	23	Growing at the same rate as inventories
Income Tax Receivable	€M	23	23	23	23	23	23	23	23	23	Assumed constant due to lack of information needed
Non-Operating Assets											
Deferred tax assets	€M	175	175	175	175	175	175	175	175	175	Assumed constant due to lack of information needed
Investments + Assets available for sale + Derivatives	€M	33	33	33	33	33	33	33	33	33	Assumed constant due to lack of information needed
Operating Liabilities											
Payables	DPO	99	99	99	99	99	99	99	99	99	Average 2016-2021, COGS base

	Unit										Note
Income Tax Payable	€M	47	47	47	47	47	47	47	47	47	Assumed constant due to lack of information needed
Non-Operating Liabilities											
Lease Liabilities	€M	2564	2770	2990	3220	3461	3709	3959	4211	4462	L. Liab. (n) = LL(n-1) - Lease amortization(n) + Lease renewal(n). The renewals grow in accordance with rent expectations, in line with RoU
Borrowings	%NCA	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	6.3%	2021 Percentage of Non-Current Assets, growing along with CAPEX
Current	%Total Borrowings	47%	47%	47%	47%	47%	47%	47%	47%	47%	2016-2021 average, in line with 2022Q3
Non-Current	%Total Borrowings	53%	53%	53%	53%	53%	53%	53%	53%	53%	2016-2021 average, in line with 2022Q3
Provisions	€M	34	34	34	34	34	34	34	34	34	Assumed constant due to lack of information needed
Employee Benefits	€M	70	70	70	70	70	70	70	70	70	Assumed constant due to lack of information needed

Income Statement Assumptions	Unit	2022E	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	Note
Revenues											
Poland	€M	17940	19845	21275	22548	23945	25128	26137	27067	27901	See next table
Portugal	€M	5657	6057	6352	6622	6862	7097	7337	7567	7785	See next table
Colombia	€M	1768	2344	2824	3287	3755	4213	4639	5004	5286	See next table
Operating Costs											
Cost of Goods Sold	% Revenue	-77.7%	-77.7%	-77.6%	-77.6%	-77.5%	-77.5%	-77.4%	-77.4%	-77.3%	Starting at 2021 level and reaching 2019-2021 average
Other cost of sales	€M	-254	-281	-301	-319	-338	-355	-369	-382	-394	2016-2021 average rate (excluding Retail tax); Includes the new Polish Retail tax for the different levels of Revenue.
Advertising costs	% Revenue	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	-0.6%	2016-2021 average rate
Staff costs	% Revenue	-8.5%	-8.5%	-8.5%	-8.5%	-8.5%	-8.5%	-8.5%	-8.5%	-8.5%	2016-2021 average rate
Transportation costs	% Revenue	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	-1.1%	2016-2021 average rate
Others	% Revenue	-0.04%	-0.04%	-0.04%	-0.04%	-0.04%	-0.04%	-0.04%	-0.04%	-0.04%	2016-2021 average rate. Includes short-term rents and Other profits/losses
Supplies and services	% Rev + overcharge	-3.9%	-4.2%	-4.1%	-4.0%	-3.9%	-3.8%	-3.7%	-3.7%	-3.7%	
Except Energy	% Revenue	-1.2%	-1.5%	-1.4%	-1.3%	-1.2%	-1.1%	-1.0%	-1.0%	-1.0%	2016-2021 average rate, plus a gradually fading overcharge reflecting the company's expectations
Energy	% Revenue	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	-2.7%	2016-2021 average rate
D&A of Tangibles and Intangibles	% PP&E (n-1)	-425	-479	-526	-573	-616	-656	-692	-722	-747	2019-2021 average depreciation rate (8.9%)
Depreciations of RoU Assets	% RoU(n-1)	-318	-342	-370	-401	-432	-465	-498	-531	-564	2020-2021 average depreciation rate (14.2%)
Net Financial Costs											
Loans interest expense	€M	-35	-40	-38	-36	-32	-28	-29	-31	-32	Forecasted Cost of Debt, see Appendix 10
Leases interest expense	€M	-137	-148	-160	-172	-185	-199	-214	-228	-243	5.8% (Incremental Borrowing rate used in 2019-2021)
Income Tax											
Income Tax	€M	-231	-241	-271	-299	-330	-360	-386	-402	-415	27% is the tax rate computed using the Tax Reconciliation method

Revenues, sqm and Stores	Unit	2022E	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	Note
Poland											
Biedronka											
Real GDP Growth	%	3.8%	0.5%	3.1%	3.4%	3.3%	2.5%	2.5%	2.5%	2.5%	IMF world economic outlook Oct 2022, (database).
Elasticity of Demand to Income	#	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	0.52	"A meta-analysis of the price and income elasticities of food demand", Working Paper SMART – LERECO N°19-03, 2019
Inflation rate	%	13.8%	14.3%	4.3%	3.2%	2.5%	2.5%	2.5%	2.5%	2.5%	IMF world economic outlook Oct 2022 page 134, (database).
Population growth	%	8.1%	-2.2%	-1.8%	-1.3%	-0.6%	-0.4%	-0.3%	-0.3%	-0.3%	UN Projections, Department of Economic and Social Affairs, Jul/2022
LFL growth ecl. Forex	**%**	**25.5%**	**12.0%**	**4.1%**	**3.6%**	**3.6%**	**3.4%**	**3.6%**	**3.6%**	**3.6%**	**(1+GDPgrowth*elast.)*(1+infl.)*(1+pop.growth)-1**
EUR/ZLO	%	-2.4%	-6.0%	-1.1%	-1.4%	-0.7%	-0.7%	-0.7%	-0.7%	-0.7%	Futures market projections until 2024. From 2025, differences between expected inflation of currency and Eurozone inflation.
LFL growth incl. Forex	**%**	**22.5%**	**5.2%**	**3.0%**	**2.2%**	**2.9%**	**2.7%**	**2.8%**	**2.8%**	**2.8%**	**(1+LFLexcl.Forex)*(1+EUR/ZLO)-1**
Area per store	thousand SQM	0.70	0.71	0.72	0.72	0.73	0.73	0.73	0.73	0.73	Growing (or decreasing depending on each banner's historic and aligned

										with market estimates) at the CAGR 2015-2022YE until 2026YE, stabilizing after.
Number of stores	#	3395	3497	3587	3664	3727	3775	3808	3825	3825	2022 is having in mind Q3 2022 growth. From 2023 is CAGR 2017-2022.
Total area	thousand SQM	**2374**	**2473**	**2566**	**2651**	**2728**	**2763**	**2787**	**2800**	**2800**	**Area per store * Number of stores**
Sales per thousand SQM	€M	**7.6**	**8.0**	**8.3**	**8.4**	**8.7**	**8.9**	**9.2**	**9.4**	**9.7**	**Sales per thous. SQM(n)=Sales per thous. SQM(n-1) *(1+LFL growth inc. Forex)**
Biedronka's Sales	€M	17582	19429	20796	22008	23341	24468	25434	26329	27136	Sales(n)=Sales per thous. SQM(n) * Average Area (beginning and year end)
Hebe's Sales	€M	358	416	479	539	604	659	703	739	765	-
Portugal											
Pingo Doce	€M	4499	4820	5071	5301	5504	5702	5904	6095	6273	Remark: SQM per store decreases until 2026 at the -0.39% CAGR 2015-2022, stabilizing after. In line with proximity strategy.
Recheio	€M	1158	1237	1281	1321	1358	1394	1432	1472	1512	-
Colombia											
Ara	€M	1768	2344	2824	3287	3755	4213	4639	5004	5286	Remark: SQM per store decreases until 2026 at the -0.28% CAGR 2015-2022, stabilizing after. In line with proximity strategy.

CAPEX (in '000 000)	2022	2023	2024	2025	2026	2027	2028	2029	2030	CAGR 22-30
Poland										
Biedronka										
CAPEX Revamping	373	419	445	464	483	500	515	529	541	4.7%
# stores refurbished	307	320	330	338	346	352	356	359	361	2.1%
% stores refurbished	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	9.4%	-
Cost per revamp	1.2	1.3	1.3	1.4	1.4	1.4	1.4	1.5	1.5	2.6%
CAPEX Expansion	93	75	71	65	58	49	41	31	20	-17.4%
# stores closed	26	27	28	28	29	29	30	30	30	2.1%
% store closings	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	0.8%	-
Stores beginning Year	3250	3395	3497	3587	3664	3727	3775	3808	3825	2.1%
# new stores	171	129	118	105	92	77	63	47	30	-19.5%
# stores	3395	3497	3587	3664	3727	3775	3808	3825	3825	1.5%
Capex per new store	0.5	0.6	0.6	0.6	0.6	0.6	0.6	0.7	0.7	2.6%
Intangibles and Inv. Property	144.2	135.4	133.2	133.7	132.6	130.4	126.4	122.0	116.0	
Total CAPEX	**611**	**629**	**649**	**663**	**673**	**679**	**682**	**682**	**677**	**1.3%**
Hebe Total CAPEX	**17**	**19**	**20**	**21**	**22**	**22**	**22**	**21**	**20**	**2.0%**
Pingo Doce Total CAPEX	**155**	**170**	**173**	**177**	**177**	**178**	**177**	**177**	**174**	**1.4%**
Recheio Total CAPEX	**29**	**29**	**29**	**30**	**30**	**30**	**30**	**31**	**31**	**0.9%**
Ara Total CAPEX	**224**	**159**	**172**	**170**	**160**	**143**	**119**	**88**	**53**	**-16.6%**
Total Group CAPEX	**1035**	**1006**	**1044**	**1061**	**1061**	**1053**	**1030**	**999**	**955**	**-1.0%**

CAPEX is computed per banner. In each banner, we look at historical rates of store closures, and store refurbishments to forecast the future closures and number of refurbishments. The number of new stores is calculated having in mind historical store count growth and prospects for each banner within each market. The cost per revamp and per opening is forecasted adjusting the latest average costs* per revamp and new store, according to forecasted inflation and the FOREX differences per country.

*Company states that opening new stores or revamping existing one's costs practically the same. However, the number of refurbishments on the reports account for complete refurbishments, although the company also renovates other existing stores. This makes the cost per revamping appear significantly larger.

Appendix 9: SWOT Analysis

Strengths	Weakness	Opportunities	Threats
- Strong banners in each business segment (market leadership and economies of scale). - High focus in ESG: listed company in over 100 international sustainability indices - Strong cash flows solid position to seek financing for possible expansion projects.	- Group performance is highly dependence of Biedronka banner. - High competition and weakening of the Colombian peso have affecting Ara's profitability. - Lack of investment in e-commerce.	- Romania poses as a feasible and most likely expansion for the Group. - Strong presence in the Latin American region with big distribution centers opens the possibility to expand operations. - Possible synergies between business segments through web applications.	- Entrance of Mercadona, the Spanish supermarket chain, in the Portuguese market. - Litigations in Poland namely fines of 10% of revenues accounting almost 1.4 billion euros). - War in Ukraine has made energy costs soar in Europe where JMT was hedged up until June.

Appendix 10: WACC Assumptions

JMT's presence in several countries, with different risk levels and required returns, limits the estimation of the true consolidated WACC. Due to this, multiple approaches were applied: 1) **Estimating discount rates and WACC for each geographical segment**, 2) Estimating WACC on a Group level & 3) Estimating WACC as a SoP for the cost of equity and using group cost of debt and tax levels to produce a reasonable WACC. The method used was the initial. The outputs for WACC per geographical operation is displayed in the figure below.

WACC, per geography	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	TV
Portugal	7.0%	7.0%	6.9%	6.8%	6.8%	6.7%	6.7%	6.7%	6.6%	6.6%
Poland	10.8%	10.8%	10.6%	10.5%	10.4%	10.3%	10.2%	10.2%	10.2%	10.2%
Colombia	18.2%	18.1%	17.8%	17.6%	17.3%	17.2%	17.0%	16.8%	16.6%	16.6%
Consolidated WACC	10.4%	10.8%	11.1%	11.0%	11.0%	10.9%	10.8%	10.8%	10.8%	10.8%

Cost of Equity (Ke)| To calculate JMT's cost of equity, we used the Capital Asset Pricing Model (CAPM: Ke = RFR + ß * ERP). Specifically, we computed Ke for each geographical segment separately and included it in the segment specific WACC computations.

Betas | The Betas used to calculate the cost of equity were estimated using the **pure-play method** (sample of 6 peers per geographical segment using the SARD approach). Collecting levered betas for peers and estimating an average was the first approach. From there they were deleveraged using the sum of the capital structure, according to each peer's capital structure and statutory tax rates. Adjustment for cash were also made using peers book values. Lastly, re-levering was applied using the capital structure for each forecasted year. To conclude the computation and using the Blume assumptions that betas with time converge towards the market (ß = 1), we **adjusted the results with the Blume method** (Adjusted beta = 2/3 * + 1/3 * (market beta)).

Country specific beta	D/E	Cash/ EV	5Y m. Beta	Tax Rate	Cash adj.	Unlevered	Leveraged	Blume adj.
Portugal	1.39	0.13	0.65	0.23	0.75	0.36	0.47	**0.65**
Poland	0.26	0.04	0.52	0.19	0.54	0.45	0.59	**0.73**
Colombia	1.09	0.09	1.24	0.35	1.37	0.80	1.01	**1.01**

RFR and ERP | Equity risk premium rates were computed using the historical premium approach, where the actual returns on stocks earned over the long term is estimated and compared to the actual returns earned on a risk-free security. The difference between the values is the historical premiums on an annual basis for each country. The risk-free rate was computed by taking the 10Y Yields of the sovereign bonds (in respect to currency risk, and 3M

average) in which JMT operates and the CDS for the country was added on top of the yields. Equity Risk premia was computed considering the German historical ERP and adding the country risk spread for Portugal, Poland, and Colombia to get separate ERP values per segment.

Cost of Debt (Kd) | Cost of debt was estimated by looking at the country specific RFR and adding the Implied Credit Default Spread (computed using the interest rate coverage ratio as a benchmark) for each geographical segment.

WACC, Hybrid approach	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Cost of Equity									
EBIT Weighted Ke	11.5%	12.0%	12.3%	12.5%	12.6%	12.7%	12.7%	12.8%	12.8%
Cost of Debt									
Cost of Debt	7.4%	7.7%	6.8%	5.7%	4.8%	3.9%	3.9%	3.9%	3.9%
Tax rate	25.3%	25.3%	25.3%	25.3%	25.3%	25.3%	25.3%	25.3%	25.3%
Lease rate	7.8%	8.2%	7.8%	7.3%	7.2%	7.2%	7.2%	7.2%	7.2%
Target Weights									
Equity Weight, mkt value	80.6%	79.4%	78.1%	76.8%	75.5%	74.2%	73.0%	71.9%	70.8%
Lease Liabilities	16.1%	17.1%	18.2%	19.3%	20.4%	21.5%	22.5%	23.6%	24.6%
Debt Weight	3.2%	3.5%	3.7%	3.9%	4.1%	4.3%	4.4%	4.5%	4.6%
WACC Output	10.3%	10.7%	10.8%	10.7%	10.7%	10.6%	10.5%	10.5%	10.4%

Appendix 11: Terminal Growth Rate

Operating in three geographical segments, estimates show JMT will stabilize its growth in each segment. FCF is forecasted to grow perpetually at a constant rate for the

Terminal growth rates	Portugal	Poland	Colombia	Group
g	1%	2%	2.5%	2%

terminal period. The Stable Growth Model and the PRAT Model were used as an initial approach. However, the values derived overestimated the terminal growth rate. JMT's revenues depend on macroeconomic variables, such as food consumption, which historically follows GDP growth, hence the forecasted real GDP **growth rate for each segment was used as a proxy of the terminal growth rate**.

PRAT model	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F
Net Income	624	652	733	807	892	972	1 044	1 086	1 122
Dividends	511	538	559	628	693	767	837	902	942
Avg. Equity	2490	2527	2598	2769	2953	3127	3320	3515	3710
Sales	25365	28246	30451	32456	34562	36438	38112	39637	40972
Avg. Assets	10833	7653	8068	8624	13140	14077	14946	15776	16605
Ratios									
Div. Payout	81.9%	82.5%	76.3%	77.8%	77.6%	78.8%	80.2%	83.1%	83.9%
Retention	18.1%	17.5%	23.7%	22.2%	22.4%	21.2%	19.8%	16.9%	16.1%
ROE	0.25	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Profit margin	0.02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Asset turnover	2.34	3.7	3.8	3.8	2.6	2.6	2.6	2.5	2.5
Equity multiplier	4.35	3.0	3.1	3.1	4.5	4.5	4.5	4.5	4.5
Growth	**4.55%**	**4.5%**	**6.7%**	**6.5%**	**6.8%**	**6.6%**	**6.2%**	**5.2%**	**4.9%**

Appendix 12: FCFF Valuation per business segment

Portugal, €M	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	TV
Revenues	**5657**	**6057**	**6352**	**6622**	**6862**	**7097**	**7337**	**7567**	**7785**	
Pingo Doce	4499	4820	5071	5301	5504	5702	5904	6095	6273	
Recheio	1158	1237	1281	1321	1358	1394	1432	1472	1512	
EBITDA	**322**	**328**	**351**	**372**	**393**	**413**	**434**	**448**	**461**	
EBIT	**132**	**123**	**135**	**148**	**160**	**173**	**186**	**192**	**197**	
Pingo Doce	105	98	108	118	128	139	150	154	159	
Recheio	27	25	27	29	32	34	36	37	38	
Tax rate	**22.5%**	**22.5%**	**22.5%**	**22.5%**	**22.5%**	**22.5%**	**22.5%**	**22.5%**	**22.5%**	
Taxes	**40**	**37**	**41**	**45**	**49**	**53**	**57**	**59**	**61**	
Pingo Doce	31	29	32	36	39	42	45	47	48	
Recheio	7	7	7	8	9	9	10	10	10	

NOPAT	92	86	94	103	111	120	129	133	137	
(+) D&A and provisions	166	176	187	199	208	218	229	239	249	
(-) Changes in NWC	-48	-85	-59	-53	-53	-46	-41	-38	-33	
(-) CAPEX	184	199	203	207	206	209	207	208	205	
FCFF	122	148	138	147	166	176	191	202	214	3480
Pingo Doce	88	107	99	107	123	131	144	153	164	2662
Recheio	35	43	40	42	45	47	49	51	52	848
WACC	7.1%	7.0%	6.9%	6.8%	6.8%	6.7%	6.7%	6.7%	6.6%	6.6%
Enterprise value	2546 €		g = 1%							

Discounted Cash Flow – Pingo Doce

Forecast Year	FCF	WACC	Present Value
2024F	99	7.0%	92
2025F	107	6.9%	94
2026F	123	6.9%	101
2027F	131	6.8%	101
2028F	144	6.8%	104
2029F	153	6.8%	104
2030F	164	6.7%	104
Terminal Value			1,847
Present Value of Operations			2,546
Outstanding Shares (Mn)			629
Price Target (€/Share)			€4.05*

Discounted Cash Flow - Recheio

Forecast Year	FCF	WACC	Present Value
2024F	40	7.0%	38
2025F	42	6.9%	37
2026F	45	6.9%	37
2027F	47	6.8%	36
2028F	49	6.8%	35
2029F	51	6.8%	34
2030F	52	6.7%	33
Terminal Value			585
Present Value of Operations			835
Outstanding Shares (Mn)			629
Price Target (€/Share)			€1.33

Poland, €M	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	TV
Revenues	17940	19845	21275	22548	23945	25128	26137	27067	27901	
EBITDA	1539	1746	1893	2029	2179	2312	2431	2517	2595	
EBIT	982	1027	1122	1212	1311	1401	1483	1536	1576	
Tax rate	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	19.0%	
Taxes	187	195	213	230	249	266	282	292	300	
NOPAT	795	832	909	981	1062	1134	1201	1244	1277	
(+) D&A and provisions	526	577	627	676	726	773	816	856	892	
(-) Changes in NWC	-152	-279	-198	-179	-186	-164	-145	-137	-120	
(-) CAPEX	628	648	669	684	695	701	704	703	697	
FCFF	845	1039	1064	1153	1280	1370	1458	1534	1592	17868
WACC	10.8%	10.8%	10.6%	10.5%	10.4%	10.3%	10.2%	10.2%	10.2%	10.2%
Enterprise value	16298 €		g = 2%							

DCF – Biedronka + Hebe

Forecast Year	Free cash flow	WACC	Present Value
2024F	1064	10.6%	962
2025F	1153	10.5%	944
2026F	1280	10.4%	950
2027F	1370	10.3%	924
2028F	1458	10.2%	895
2029F	1534	10.2%	854
2030F	1592	10.2%	806
Terminal Value			9963
Present Value of Operations			16298
Outstanding Shares (Mn)			629
Price Target (€/Share)			€25.90

Colombia, €M	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	TV
Revenues	1 768	2344	2824	3287	3755	4213	4639	5004	5286	
EBITDA	55	141	234	276	319	362	404	435	460	
EBIT	14	70	150	177	207	236	264	285	301	
Tax rate	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%	
Taxes	5	25	52	62	72	83	93	100	105	
NOPAT	9	46	97	115	134	153	172	185	196	
(+) D&A and provisions	52	68	83	99	114	130	145	158	169	
(-) Changes in NWC	-15	-33	-26	-26	-29	-28	-26	-25	-23	
(-) CAPEX	224	159	172	170	160	143	119	88	53	
FCFF	-148	-12	34	70	117	167	224	280	335	2122
WACC	18.3%	18.1%	17.8%	17.6%	17.3%	17.2%	17.0%	16.8%	16.6%	16.6%
Enterprise value	1391 €	g = 2.5%								

DCF - Ara			
Forecast Year	Free cash flow	WACC	Present Value
2024F	34	17.8%	29
2025F	70	17.6%	50
2026F	117	17.3%	73
2027F	167	17.2%	89
2028F	224	17.0%	102
2029F	280	16.8%	110
2030F	335	16.6%	114
Terminal Value			824
Present Value of Operations			1,391
Outstanding Shares (Mn)			629
Price Target (€/Share)			€2.21

Others, consolidation adjustments, €M	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	TV
EBITDA	-112	-124	-134	-143	-152	-160	-168	-175	-180	
EBIT	-156	-173	-187	-199	-212	-224	-234	-243	-252	
Tax rate	27.0%	27.0%	27.0%	27.0%	27.0%	27.0%	27.0%	27.0%	27.0%	
Taxes	-39	-44	-47	-50	-54	-57	-59	-61	-64	
NOPAT	-116	-130	-140	-149	-159	-167	-175	-182	-188	
FCFF	-116	-130	-140	-149	-159	-167	-175	-182	-188	-1961
WACC	10.4%	10.8%	11.1%	11.0%	11.0%	10.9%	10.8%	10.8%	10.8%	10.8%
Enterprise value	-1838 €	g = 2%								

Appendix 13: Windfall Tax Portugal

In accordance with **Law n. º 24-B/2022, December 30th**:
The Portuguese Government imposed a new tax law to be applied in 2022 and 2023 to big food retailers and energy suppliers operating in the country. The Government expects to get € 50M-100M from this tax in the 2-year span.
The following law presents applicability for Food Retailers operating in Portugal, with sales above € 100M and limited to the period of 2022 and 2023. In terms of incidence, there is a 33% tax rate over profits **that exceed the previous 4 years average, with a markup of 20%.**

	2018	2019	2020	2021	2022F	2023F
EBIT	128	154	84	116	132	123
Average EBIT previous 4 years					120.5	121.5
+ 20% markup					144.6	145.8
Does profit exceed the markup threshold? *					**No**	**No**

*The group has no debt in Euros. Thus, EBIT is a good proxy for EBT.

Appendix 14: Retail Tax Poland

New Retail Tax entered into force on January 1st, 2021.
- 0.8% of revenues between PLN 17M and PLN 170M, per month (approx. € 3.6M and € 36M).
- 1.4% of revenues above PLN 170M per month.

Polish Retail Tax (€ Millions): 2021: 153, 2022E: 243, 2023F: 269, 2024F: 288, 2025F: 305, 2026F: 324, 2027F: 340, 2028F: 353, 2029F: 366, 2030F: 377

Effect on the Price Target (€/sh)): Without Retail Tax: € 29.8, With Retail Tax: € 24.9 → € -4.9/sh.

Did not affect Polish margins: Poland EBITDA margin, Poland EBIT margin (2019, 2020, 2021)
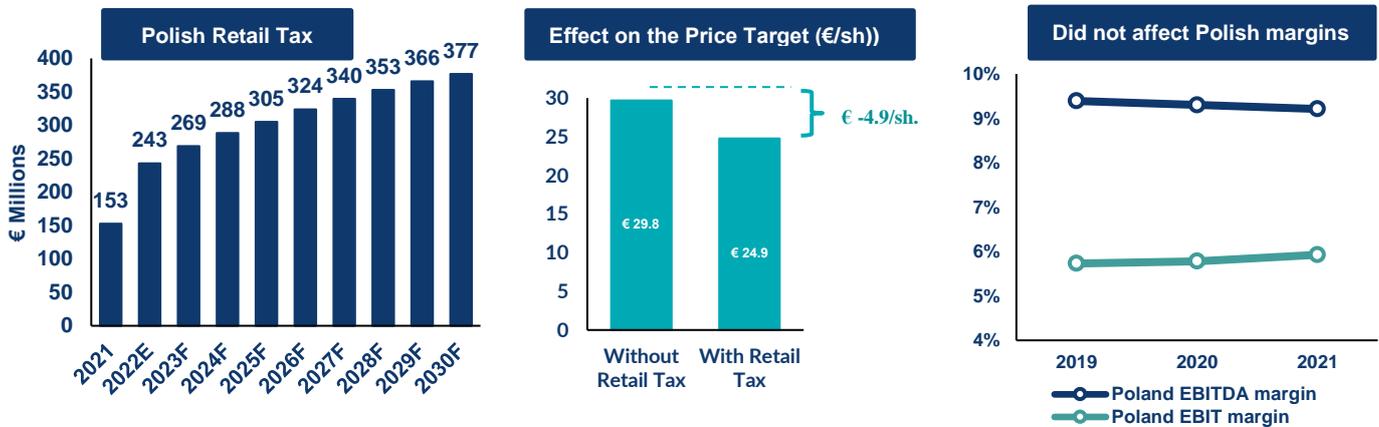
Appendix 15: Income Tax Colombia

Colombian corporate tax rate increased from 31% to 35% in 2022, contributing for:
- Colombian segment and group's intrinsic value drops by € 0.08/sh.
- Respectively, -3.5% and -0.3%.

Colombian segment's Price Target vs Colombian corporate tax rate: 31%: € 2.29, 32%: € 2.27, 33%: € 2.25, 34%: € 2.23, 35%: € 2.21 (-3.5%)

JMT's Price Target vs Colombian corporate tax rate: 31%: € 24.95, 32%: € 24.93, 33%: € 24.91, 34%: € 24.89, 35%: € 24.87 (-0.3%)

Appendix 16: Income Tax Reconciliation

To capture tax management efficiency throughout the period, as well as to correctly use operating taxes in the DCF as a Group approach a tax reconciliation approach was implemented for the group's operations.

Operating taxes | Computation for forecasted operating tax rate was done by selecting specific recurring operating items from the reconciliation tables in the annual reports (3-year data). The selected recurring items are the different tax rates in foreign jurisdiction and the results subject to autonomous taxation. The 3-year average as a percentage of EBT was computed for both items and used for the forecasted period. The percentage was applied to the forecasted EBT values and added back to the operating taxes expressed as the statutory tax rate. The value obtained was then expressed in percentual terms to arrive at an operating tax rate of c.27% every year.

Operating cash taxes | To capture operating tax effects, we turned to the deferred tax assets which were forecasted item per item as an average percentage of their corresponding items in the balance sheet. The changes of the NDT were subtracted from the operating tax values and then expressed as a percentual rate. To obtain the tax rate for the DCF as a Group we computed the geometric mean of the forecasted operating cash taxes which yielded a result of 24.5%.

In '000 EUR	2022	2023	2024	2025	2026	2027	2028	2029	2030
Profit before tax	855	893	1,004	1,106	1,222	1,332	1,430	1,487	1,537
EBIT	1,026	1,079	1,200	1,312	1,439	1,558	1,672	1,745	1,810
Statutory tax rate	22.50%	22.50%	22.50%	22.50%	22.50%	22.50%	22.50%	22.50%	22.50%
Statutory taxes on EBIT	231	243	270	295	324	351	376	393	407
Recurring adjustments:									
(% of EBT) Different tax rates in foreign jurisdictions	6.70%	6.70%	6.70%	6.70%	6.70%	6.70%	6.70%	6.70%	6.70%
(% of EBT) Results subject to autonomous taxation and other forms of taxation	-1.20%	-1.20%	-1.20%	-1.20%	-1.20%	-1.20%	-1.20%	-1.20%	-1.20%
Cumulative adjustments	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%	5.50%
Operating adjustments	47	49	55	61	67	73	79	82	85
OPERATING TAXES	278	292	325	356	391	424	455	474	492
Operating tax rate	27%	27%	27%	27%	27%	27%	27%	27%	27%
Deferred tax assets	2022	2023	2024	2025	2026	2027	2028	2029	2030
DTA	51	59	68	78	87	97	106	114	123
DTL	67	67	67	67	67	67	67	67	67
Net deferred taxes	-16	-8	1	10	20	30	39	47	56
Changes in DT	8	8	38	9	20	9	39	9	56
CASH TAXES	270		254		305		317		335
Cash tax rate	26%		23%		25%		24%		23%
Geo-mean	24.5%								

Appendix 17: Residual Income Model

	2024F	2025F	2026F	2027F	2028F	2029F	2030F
NOPAT	876	958	1050	1137	1220	1273	1321
Invested Capital	6533	6989	7473	7967	8461	8929	9388
WACC	11.1%	11.0%	11.0%	10.9%	10.8%	10.8%	10.8%
EVA	154	188	232	269	304	305	307
EVA's Present Value	138	153	170	178	182	165	150
MVA's Present Value							1,749
Equity value	12825						
Price target (€/sh)	€ 25.0						

Appendix 18: Dividend Discount Model

	2024F	2025F	2026F	2027F	2028F	2029F	2030F
RFR, Portugal	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%
MRP, EBIT weighted average	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%	7.3%
Beta, EBIT weighted average	0.75	0.75	0.75	0.76	0.76	0.76	0.76
Ke, DDM	7.6%	7.6%	7.6%	7.7%	7.7%	7.7%	7.7%

Dividend Discount Model in '000 000			
Years	Dividends to Common Shareholders	Ke	PV Dividends
2024F	535	7.6%	497
2025F	601	7.6%	519
2026F	663	7.6%	531
2027F	733	7.7%	546
2028F	801	7.7%	554
2029F	863	7.7%	553
2030F	901	7.7%	536
Terminal value			9677
(+) Excess Cash			1294
Equity value			14707
Outstanding shares			629
Price target			€ 23.4

Appendix 19: Adjusted Present Value Model

APV Model in '000 000			
Years	FCF	Discount rate	PV FCF
2024F	1066	10.5%	965
2025F	1186	10.5%	971
2026F	1368	10.6%	1011
2027F	1510	10.7%	1006
2028F	1661	10.8%	997
2029F	1801	10.8%	973
2030F	1928	10.8%	938
Terminal value			**10895**
Present Value of Operations			17755
(+) Interest Tax Shield			
2024F	53	7.6%	49
2025F	56	7.1%	49
2026F	58	6.8%	48
2027F	61	6.6%	47
2028F	65	6.6%	47
2029F	70	6.6%	47
2030F	74	6.6%	47
Terminal value			**1,045**
Present Value of ITS			1380
Total Non-Operating Assets			1337
Enterprise value			**20472**
Total Debt and Debt equivalents			3673
Noncontrolling interests			1248
Equity Value			**15551**
Outstanding Shares			629
Price Target (€/Share)			**€ 24.71**

Appendix 20: DCF Group

DCF FCFF Group in '000 000			
Forecasted Year	Free cash flow	WACC	Present Value of FCFF
2024F	1066	10.8%	962
2025F	1186	10.7%	967
2026F	1368	10.7%	1008
2027F	1510	10.6%	1008
2028F	1661	10.5%	1006
2029F	1801	10.5%	989
2030F	1928	10.4%	964
Terminal Value			11766
Present Value of Operations			18670
Total Non-Operating Assets			1337
Total Debt and Debt equivalents			3673
Noncontrolling interests			1248
Equity Value			15086
Outstanding Shares (Mn)			629
Price Target (€/Share)			**€ 23.97**

Appendix 21: Peers Selection (for Relative Valuation Purposes)

The selection of the Peers was conducted through a Sum of Absolute Rank Differences (SARD) approach developed by Knudsen et al. (2017). The differential financial drivers selected, as recommended by the paper, were ROE (3y avg.), Debt/EBIT (3y avg), Current Market Cap, Revenue Growth 2019-2023 (Refinitiv Mean Estimate), EBIT margin (3y avg) and CFO/Revenues (3y avg). The pool of potential peers is comprised of companies in the Food Retail Industry (TRBC Name, Refinitiv), excluding those without physical retail stores or with Market Capitalization lower than €100M, and only including those with operations in Europe, Americas and/or Oceania.

Additionally, some companies were also taken out of the initial SARD result due to relevant information missing, or different business model, which would make the companies not comparable.

The pool of companies was compared to each of JMT's geographical segments, and thus arriving at a final peer group of six companies, which minimized the SARD, for Portugal, Poland, and Colombia, as presented below:

SoP

Portugal				Poland				Colombia			
SARD Rank	Ticker	Company Name	Country	SARD Rank	Ticker	Company Name	Country	SARD Rank	Ticker	Company Name	Country
1	B4B.DE	METRO AG	Germany	1	DNP.WA	Dino Polska SA	Poland	4	GENC.PA	Rallye SA	France
2	SBRY.L	J Sainsbury PLC	United Kingdom	2	AXFO.ST	Axfood AB	Sweden	7	EUR.WA	Eurocash SA	Poland
3	EUR.WA	Eurocash SA	Poland	5	KESKOB.HE	Kesko Oyj	Finland	7	USFD.N	US Foods Holding Corp	Poland
7	MTS.AX	Metcash Ltd	Australia	6	MRU.TO	Metro Inc	Canada	10	PFGC.N	Perf. Food Group Co	United States of America
8	GENC.PA	Rallye SA	France	8	SFM.OQ	Sprouts Farmers Market Inc	United States of America	11	SMU.SN	SMU SA	Chile
9	CARR.PA	Carrefour SA	France	9	CRFB3.SA	Atacadao SA	Brazil	11	IMI.CN	Almac. Exito SA	Colombia

Group

The same method was used for the group, with the resulting peer list below:

	SARD Rank	Ticker	Company Name	Country
JMT	1	**CASY.OQ**	Caseys General Stores Inc	United States of America
	2	**WOW.AX**	Woolworths Group Ltd	Australia
	3	**AD.AS**	Koninklijke Ahold Delhaize NV	Netherlands
	4	**EMPa.TO**	Empire Company Ltd	Canada
	5	**KESKOB.HE**	Kesko Oyj	Finland
	6	**L.TO**	Loblaw Companies Ltd	Canada

Appendix 22: Price Multiples (for Relative Valuation Purposes)

SoP

The relative valuation was conducted with a Sum of Parts (SoP) perspective, by addition of the equity value of each of JMT's geographical segments. The multiples were computed using Trailing Twelve Months (TTM) information, using the specific peer group for each segment as a result of the SARD approach. The calculation of the equity value was done for Enterprise Value Multiples (EV/Sales, EV/EBITDA). Since the relative valuation is conducted by SoP, and the segments have individually attributable debt, EV Multiples are more appropriate for the estimation of the Price Target. As such, by means of an average of the EV Multiples' result of Equity Value, and by adding each segment, a price target of **€25.5/sh** was achieved. Additionally, **adjustments were made due to Cash, Debt, and non-controlling interest** (only 51% of Pingo Doce is controlled by JMT).

PORTUGAL & Others	Ticker	Company Name	EV / Sales	EV / EBITDA
	B4B.DE	METRO AG	0.23	5.01
	SBRY.L	J Sainsbury PLC	0.38	5.23
	EUR.WA	Eurocash SA	0.16	4.80
	MTS.AX	Metcash Ltd	0.34	11.98
	GENC.PA	Rallye SA	0.51	10.91
	CARR.PA	Carrefour SA	0.38	6.92
	MEDIAN		**0.36**	**6.07**

Target Price with Median EV Multiples	
EV/Sales Target Price	€2.01
EV/EBITDA Target Price	€1.11
Average Target Price	**€1.56**

POLAND	Ticker	Company Name	EV / Sales	EV / EBITDA
	DNP.WA	Dino Polska SA	1.97	21.05
	AXFO.ST	Axfood AB	0.92	12.35
	KESKOB.HE	Kesko Oyj	0.90	7.97
	MRU.TO	Metro Inc	1.16	12.39
	SFM.OQ	Sprouts Farmers Market Inc	0.57	7.60
	CRFB3.SA	Atacadao SA	0.65	9.40
	MEDIAN		**0.91**	**10.88**

Target Price with Median EV Multiples	
EV/Sales Target Price	€23.35
EV/EBITDA Target Price	€25.01
Average Target Price	**€24.18**

COLOMBIA	Ticker	Company Name	EV / Sales	EV / EBITDA
	GENC.PA	Rallye SA	0.51	10.91
	EUR.WA	Eurocash SA	0.16	4.80
	USFD.N	US Foods Holding Corp	0.40	14.93
	PFGC.N	Performance Food Group Co	0.26	14.84
	SMU.SN	SMU SA	0.55	5.67
	IMI.CN	Almacenes Exito SA	0.36	4.24
	MEDIAN		**0.38**	**8.29**

Target Price with Median EV Multiples	
EV/Sales Target Price	€0.27
EV/EBITDA Target Price	-€0.02
Average Target Price	**€0.12**

Group

The same method was used to determine the value of the shares on a group basis. Also considering the required **adjustments as in the SoP** (Debt, Cash, and non-controlling interest), a price target of **€24.9/sh** was reached.

Ticker	Company Name	EV / Sales	EV / EBITDA	EV / FCF	EV / EBIT
CASY.OQ	Caseys General Stores Inc	0.72	11.83	24.36	17.95
WOW.AX	Woolworths Group Ltd	0.95	9.72	59.80	21.39
AD.AS	Koninklijke Ahold Delhaize NV	0.53	6.25	16.70	12.65
EMPA.TO	Empire Company Ltd	0.54	7.06	12.39	12.15
KESKOB.HE	Kesko Oyj	0.90	7.97	18.89	12.65
L.TO	Loblaw Companies Ltd	1.01	9.39	16.77	17.52
MEDIAN		**0.81**	**8.68**	**17.83**	**15.09**

JMT Data (TTM)	
Sales	€24,075 M
EBITDA	€1,789 M
Debt	€2,933 M
Cash	€1,232 M
Shares	629M

Target Price with Median EV Multiples	
EV/Sales Target Price	€28.2
EV/EBITDA Target Price	€22.0
EV/FCF	€29.6
EV/EBIT	€21.7
Average Target Price	**€24.9**

Appendix 23: Real Options Valuation

In order to compute the value-added optionality in case of an acquisition for possible targets in Romania we used a Real Option Valuation approach, excluding effects from synergies. An option to invest was considered with the **Binomial Model (American option)** and the **Black-Scholes Model** as valuation methods. The inputs for the models were the market volatility of the Romanian market, company specific WACC as discount rates, and the Romanian risk-free rate. Time steps (Δt) for the binomial model were 1-time steps per year, and a forecast period of 5 years.

Market volatility (σ) | The Romanian market volatility was computed as the 3Y average annualized standard deviation of the RON index. The result yielded a standard deviation of 26%, which was included in both computing the time step value changes in the Binomial model, as well as the inputs for the Black Scholes model.

Company specific WACC | The discount rates used in the Real Option models as well as the DCF for Mega Image and Profi were computed based on their specific case. Cost of debt was computed the same way as the one for JMT's, as well as the Cost of equity using the CAPM approach. Both companies had an output of 13% for their WACC.

Romanian RFR | The Romanian risk-free rate was computed as the 10Y Yield of the Romanian Government Bond.

Appendix 24: Risk Matrix

Market Risk | Energy Costs (MR2)

Energy prices spiked after the war, exacerbated by Europe's dependence on Russian energy sources. The increase was more notoriously in Poland, where Coal and Oil represent 70% 2021YE of total energy output. The Polish Government put a cap in electricity (693 zloty per MWh for up to 90% of average energy use), coal (2,000 zloty per

tonne) and gas prices (200.17 zloty per MWh). Current prices were around 4 times higher in 2022. However, these measures applied only to households and special industries where Biedronka c.a 61% of the group's total energy consumption) do not qualify and is fully exposed. Energy costs will increase 50 basis points from 1% in 2021YE to 1.5% 2023YE of the total groups revenues amounting to €423M 2023YE. We expect energy costs to gradually decrease to the groups historic average of 1%. **Mitigation:** JMT had already planned implemented adaptation measures before the current energy cost increase. In Portugal long-term contracts hedged the group until June 2021 and in Poland with cost reduction strategies in place, energy consumption had been reduced by 11% for every €1,000 in revenues. Since 2016 the group has been investing €215M in water and energy consumption management to ensure maximum efficiency along the supply chain. JMT is also purchasing from renewable sources to power their banners in Portugal, by acquiring RECS certificates (Renewable Energy Certificate System).

Market Risk | Interest Rates (MR5)

The European Central bank has raised interest rates by 250 basis points since July 2022. Currently Interest rates are at Deposit facility 2%, Main Refinancing Options 2.5% and the marginal lending facility by 2.75%. ECB is expected to continue the steady increase until inflation returns in the medium-long term to the targeted 2%. Given the new debt incurred for expansion and the increase in the new 12- month EURIBOR to 3.37%, we expect the groups interest expenses to double to €32M by 2022YE. **Mitigation**: Following Jeronimo Martins financial stability policy, Debt to Assets (including financial leases) has remained at around 29%. Most of the company's financing source is equity-based and given market uncertainty cash holdings have increased from €0.6B to €1.5B from 2016YE-2021YE. Jeronimo Martins is prepared to weather the current crisis.

Legal & Regulatory Risk | Taxes on Retail (LRR2)

Governments have been increasing taxation on retailers. JMT has experienced an increase in retail taxes in the three core markets. The Polish Government has the lowest statutory tax rate of 19% of net income, however, they recently passed a legislation in 2021, standing at 0.8% of sales between PLN 17M and PLN 170M, and 1.4% for sales above PLN 170M per month. Additionally, the corporate tax rate in Colombia was adjusted in 2022 from 31% to 35%. In Portugal, the Government will tax by 33% the returns of companies higher than their four-year average by 20%, from big retailers and energy suppliers. **Mitigation**: Retail taxes are not expected to impact the Portuguese segment, as forecasts points to a profit growth below the threshold of 20% over the last 4 years average (only applies in 2022 and 2023). Part of the costs of the tax in Poland are shifted towards the consumers, albeit at expectedly lower rates than competitors.

Strategic and Operational Risk | Loss of Market Share (new competition) (SOR1)

The emergence of new competitors who have the ability to capture market share from JMT's banner may pose a threat to the group's market position. **Mitigation:** the company provides premium quality products at highly competitive prices and invests significantly in loyalty programs, specifically in Poland, in order to strengthen customer retention. Additionally, there are expansion plans to diversify the revenue streams and reduce reliance on a single brand.

Strategic and Operational Risk | Product Contamination (SOR2)

More than a margins risk, product contamination can have an impact on the company's reputation and consequence loss of market share. Mitigation: the company has a major focus on quality in their products, not only through they Distribution Centres, and well as their Agrobusiness segment, with proper metrics as to product delivery and standards.

Geo-Political Risk | War escalation (GPR1)

The ongoing conflict in Ukraine has had a significant impact on JMT's operations in Poland, exerting pressure on margins and creating uncertainty for future investments in the region. Despite a potential increase in sales stemming from an influx of Ukrainian immigrants, the rising costs of raw materials and services are likely to negatively impact JMT's profitability. **Mitigation**: Poland is currently fighting over the release of €35Bn with the European commission, but this will be a risk to consider while it lasts.

Legal & Regulatory Risk | Litigation (LRR1)

Jeronimo martins has been accused of price fixing and fined with around €0.5Bn in 2022 in Portugal, and with €1.7B in 2021 in Poland (yet to be officialised), for a possible misleading advertisement to consumers, and others. If settled, the litigation will affect JMT's price target in about €3.5/sh. **Mitigation**: the management has expressed strong opposition to the fines, stating that the evidence used to support the decision was collected in a subjective and inadequate manner. As a result, the company plans to appeal the decision.

Legal & Regulatory Risk | ESG Regulation (LRR3)

ESG regulatory framework will change and affect the whole European area and the risks from the uncertainties regarding the ESG regulation may affect even well scored companies in ESG like JMT. **Mitigation**: the company is well positioned ESG wise, with presence in multiple indices related to sustainability and several initiatives related to social ventures.

Appendix 25: Sensitivity Analysis

Inflation Shifts — Real GDP shifts

	-2%	-1%	0	1%	2%
-2%	€ 21.01	€ 21.50	€ 21.97	€ 22.43	€ 22.88
-1.0%	€ 22.35	€ 22.87	€ 23.39	€ 23.89	€ 24.38
0	€ 23.75	€ 24.31	€ 24.87	€ 25.41	€ 25.94
1.0%	€ 25.21	€ 25.82	€ 26.41	€ 27.00	€ 27.58
2%	€ 26.73	€ 27.39	€ 28.03	€ 28.66	€ 29.28

Population Shifts — Real GDP Shifts

	-0.5%	-0.25%	0%	0.25%	0.5%
-1.5%	€ 21.34	€ 22.00	€ 22.67	€ 23.36	€ 24.06
-0.75%	€ 22.37	€ 23.05	€ 23.75	€ 24.46	€ 25.19
0	€ 23.44	€ 24.15	€ 24.87	€ 25.60	€ 26.36
0.75%	€ 24.54	€ 25.27	€ 26.02	€ 26.79	€ 27.57
1.5%	€ 25.68	€ 26.44	€ 27.21	€ 28.00	€ 28.81

Energy Overcharge Shifts

-0.1%	-0.05%	0%	0.15%	0.3%
€ 25.02	€ 24.94	€ 24.87	€ 24.64	€ 24.42

Inflation Shifts — Forex shifts

	-2%	-1%	0%	1%	2%
-1%	€ 22.07	€ 22.59	€ 23.10	€ 23.60	€ 24.09
-0.5%	€ 22.89	€ 23.43	€ 23.97	€ 24.49	€ 25.00
0%	€ 23.75	€ 24.31	€ 24.87	€ 25.41	€ 25.94
0.5%	€ 24.64	€ 25.23	€ 25.81	€ 26.37	€ 26.92
1%	€ 25.57	€ 26.18	€ 26.78	€ 27.37	€ 27.95

Inflation Shifts — RFR Shifts

	-2%	-1%	0%	1%	2%
-2%	€ 30.42	€ 31.13	€ 31.83	€ 32.51	€ 33.18
-1%	€ 26.73	€ 27.36	€ 27.97	€ 28.58	€ 29.17
0%	€ 23.75	€ 24.31	€ 24.87	€ 25.41	€ 25.94
1%	€ 21.29	€ 21.80	€ 22.30	€ 22.80	€ 23.28
2%	€ 19.22	€ 19.69	€ 20.15	€ 20.60	€ 21.04

EUR/ZLO shifts — EUR/COL Shifts

	-2%	-1%	0%	1%	2%
-2%	€ 21.47	€ 22.94	€ 24.52	€ 26.23	€ 28.08
-1%	€ 21.63	€ 23.10	€ 24.69	€ 26.40	€ 28.25
0%	€ 21.81	€ 23.28	€ 24.87	€ 26.58	€ 28.44
1%	€ 22.00	€ 23.47	€ 25.06	€ 26.78	€ 28.64
2%	€ 22.21	€ 23.68	€ 25.28	€ 27.00	€ 28.86

Poland's EBIT margin shifts — Portugal's EBIT margin Shifts

	-1.5%	-0.75%	0%	0.75%	1.5%
-1.5%	€ 18.16	€ 20.91	€ 23.68	€ 26.45	€ 29.24
-0.75%	€ 18.74	€ 21.50	€ 24.27	€ 27.05	€ 29.84
0%	€ 19.32	€ 22.09	€ 24.87	€ 27.65	€ 30.44
0.75%	€ 19.90	€ 22.67	€ 25.45	€ 28.24	€ 31.04
1.5%	€ 20.48	€ 23.26	€ 26.04	€ 28.84	€ 31.63

Elasticity Shifts — Real GDP

	-0.2	-0.1	0	0.1	0.2
-1.5%	€ 22.18	€ 22.43	€ 22.67	€ 22.92	€ 23.16
-0.75%	€ 22.84	€ 23.29	€ 23.75	€ 24.22	€ 24.69
0%	€ 23.51	€ 24.18	€ 24.87	€ 25.57	€ 26.28
0.75%	€ 24.20	€ 25.10	€ 26.02	€ 26.97	€ 27.94
1.5%	€ 24.90	€ 26.04	€ 27.21	€ 28.43	€ 29.68

All segment's EBIT margin shift — Real GDP shift

	-1.5%	-0.75%	0%	0.75%	1.5%
-1.5%	€ 15.78	€ 19.22	€ 22.67	€ 26.12	€ 29.57
-0.75%	€ 16.66	€ 20.20	€ 23.75	€ 27.30	€ 30.84
0%	€ 17.58	€ 21.22	€ 24.87	€ 28.51	€ 32.16
0.75%	€ 18.52	€ 22.27	€ 26.02	€ 29.77	€ 33.53
1.5%	€ 19.50	€ 23.35	€ 27.21	€ 31.07	€ 34.93

Poland's EBIT margin Shift — Poland's Real GDP shift

	-1.5%	-0.75%	0%	0.75%	1.5%
-1.5%	€ 17.90	€ 20.51	€ 23.14	€ 25.78	€ 28.42
-0.75%	€ 18.60	€ 21.29	€ 23.99	€ 26.70	€ 29.42
0%	€ 19.32	€ 22.09	€ 24.87	€ 27.65	€ 30.44
0.75%	€ 20.07	€ 22.91	€ 25.77	€ 28.63	€ 31.50
1.5%	€ 20.84	€ 23.76	€ 26.70	€ 29.64	€ 32.59

Appendix 26: Treated variables' regression analysis, Autocorrelation, Partial Autocorrelation, Heteroskedasticity tests.

Portugal:

Dependent Variable: FRS_PERCENT_YEARLY
Method: Least Squares
Date: 05/08/23   Time: 13:47
Sample (adjusted): 5 91
Included observations: 87 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.011117	0.003086	3.602316	0.0005
GDP_PERCENT_YEARLY	0.412460	0.067588	6.102584	0.0000
FINF_PERCENT_YEARLY	0.677113	0.094042	7.200114	0.0000
POP_PERCENT_YEARLY	0.619480	0.730006	0.848596	0.3985

R-squared	0.564309	Mean dependent var		0.026315
Adjusted R-squared	0.548561	S.D. dependent var		0.036631
S.E. of regression	0.024612	Akaike info criterion		-4.526284
Sum squared resid	0.050277	Schwarz criterion		-4.412909
Log likelihood	200.8934	Hannan-Quinn criter.		-4.480631
F-statistic	35.83394	Durbin-Watson stat		1.345823
Prob(F-statistic)	0.000000			

Dependent Variable: FRS_PERCENT_YEARLY
Method: Least Squares
Date: 05/08/23   Time: 13:48
Sample (adjusted): 5 91
Included observations: 87 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.011083	0.003081	3.597846	0.0005
GDP_PERCENT_YEARLY	0.410808	0.067447	6.090819	0.0000
FINF_PERCENT_YEARLY	0.692987	0.092009	7.531714	0.0000

R-squared	0.560529	Mean dependent var		0.026315
Adjusted R-squared	0.550065	S.D. dependent var		0.036631
S.E. of regression	0.024571	Akaike info criterion		-4.540634
Sum squared resid	0.050713	Schwarz criterion		-4.455602
Log likelihood	200.5176	Hannan-Quinn criter.		-4.506394
F-statistic	53.56934	Durbin-Watson stat		1.335789
Prob(F-statistic)	0.000000			

Date: 05/08/23   Time: 14:00
Sample (adjusted): 5 91
Included observations: 87 after adjustments

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.311	0.311	8.6845	0.003
		2	0.229	0.147	13.480	0.001
		3	0.336	0.260	23.904	0.000
		4	-0.052	-0.275	24.152	0.000
		5	0.093	0.113	24.966	0.000
		6	0.269	0.230	31.887	0.000
		7	0.144	0.127	33.886	0.000
		8	0.071	-0.197	34.373	0.000
		9	0.098	-0.051	35.322	0.000
		10	-0.098	-0.101	36.295	0.000
		11	-0.055	0.092	36.603	0.000
		12	0.001	-0.070	36.603	0.000
		13	0.020	0.083	36.645	0.000
		14	0.044	-0.042	36.847	0.001
		15	0.031	0.047	36.950	0.001
		16	-0.085	-0.159	37.738	0.002
		17	-0.180	-0.103	41.335	0.001
		18	-0.139	-0.061	43.506	0.001
		19	-0.205	-0.055	48.304	0.000
		20	-0.055	0.074	48.658	0.000

Date: 05/08/23   Time: 00:00
Sample (adjusted): 5 91
Included observations: 87 after adjustments

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.155	0.155	2.1505	0.143
		2	-0.075	-0.101	2.6615	0.264
		3	0.076	0.109	3.2009	0.362
		4	0.025	-0.015	3.2601	0.515
		5	-0.003	0.013	3.2609	0.660
		6	-0.002	-0.011	3.2615	0.775
		7	-0.075	-0.077	3.8119	0.801
		8	-0.031	-0.006	3.9069	0.865
		9	-0.076	-0.089	4.4835	0.877
		10	0.030	0.074	4.5769	0.918
		11	0.058	0.029	4.9164	0.935
		12	-0.001	0.009	4.9166	0.961
		13	-0.002	-0.000	4.9172	0.977
		14	-0.007	-0.024	4.9220	0.987
		15	-0.025	-0.023	4.9875	0.992
		16	0.005	-0.005	4.9899	0.996
		17	0.024	0.029	5.0547	0.998
		18	-0.110	-0.121	6.4209	0.994
		19	-0.101	-0.048	7.5744	0.990
		20	-0.126	-0.133	9.3976	0.978

Heteroskedasticity Test: White
Null hypothesis: Homoskedasticity

F-statistic	0.538705	Prob. F(5,81)	0.7464
Obs*R-squared	2.799939	Prob. Chi-Square(5)	0.7308
Scaled explained SS	2.749184	Prob. Chi-Square(5)	0.7386

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 06/28/23   Time: 13:59
Sample: 5 91
Included observations: 87

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.000569	0.000115	4.950126	0.0000
GDP_PERCENT_YEARLY^2	0.001253	0.020874	0.060018	0.9523
GDP_PERCENT_YEARLY*FINF_PER...	0.109951	0.133213	0.825379	0.4116
GDP_PERCENT_YEARLY	-0.003306	0.003623	-0.912554	0.3642
FINF_PERCENT_YEARLY^2	-0.083104	0.065021	-1.278115	0.2049
FINF_PERCENT_YEARLY	0.005968	0.004493	1.328388	0.1878

R-squared	0.032183	Mean dependent var		0.000583
Adjusted R-squared	-0.027559	S.D. dependent var		0.000851
S.E. of regression	0.000863	Akaike info criterion		-11.20682
Sum squared resid	6.03E-05	Schwarz criterion		-11.03676
Log likelihood	493.4967	Hannan-Quinn criter.		-11.13834
F-statistic	0.538705	Durbin-Watson stat		2.061165
Prob(F-statistic)	0.746379			
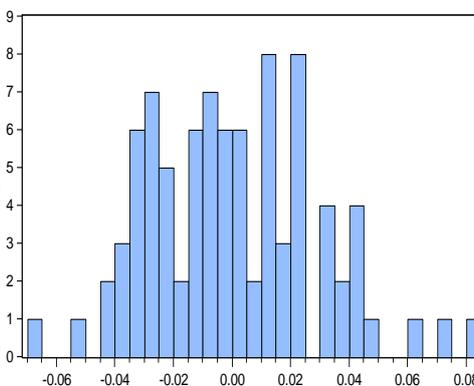
Series: Residuals	
Sample 5 91	
Observations 87	
Mean	3.19e-19
Median	-0.001300
Maximum	0.081816
Minimum	-0.065629
Std. Dev.	0.028556
Skewness	0.374671
Kurtosis	2.984592
Jarque-Bera	2.036347
Probability	0.361254

Poland:

Dependent Variable: FRS_PERCENT_YEARLY
Method: Least Squares
Date: 05/08/23   Time: 14:17
Sample (adjusted): 5 91
Included observations: 87 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.008527	0.010660	0.799896	0.4261
GDP_PERCENT_YEARLY	0.624345	0.205553	3.037387	0.0032
FINF_PERCENT_YEARLY	0.805492	0.159059	5.064116	0.0000
POP_PERCENT_YEARLY	-1.299442	2.793271	-0.465205	0.6430
ER_EUR_ZLO_GROWTH_YEARLY	-0.039188	0.058252	-0.672738	0.5030

R-squared	0.366725	Mean dependent var		0.057064
Adjusted R-squared	0.335834	S.D. dependent var		0.059890
S.E. of regression	0.048808	Akaike info criterion		-3.146075
Sum squared resid	0.195345	Schwarz criterion		-3.004356
Log likelihood	141.8543	Hannan-Quinn criter.		-3.089009
F-statistic	11.87141	Durbin-Watson stat		0.936364
Prob(F-statistic)	0.000000			

Dependent Variable: FRS_PERCENT_YEARLY
Method: Least Squares
Date: 05/08/23   Time: 14:18
Sample (adjusted): 5 91
Included observations: 87 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.005514	0.009823	0.561315	0.5761
GDP_PERCENT_YEARLY	0.661575	0.195899	3.377121	0.0011
FINF_PERCENT_YEARLY	0.841188	0.151009	5.570465	0.0000

R-squared	0.361486	Mean dependent var		0.057064
Adjusted R-squared	0.346283	S.D. dependent var		0.059890
S.E. of regression	0.048423	Akaike info criterion		-3.183813
Sum squared resid	0.196961	Schwarz criterion		-3.098782
Log likelihood	141.4959	Hannan-Quinn criter.		-3.149574
F-statistic	23.77773	Durbin-Watson stat		0.922092
Prob(F-statistic)	0.000000			

Date: 05/08/23   Time: 14:43
Sample (adjusted): 5 91
Included observations: 87 after adjustments

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.503	0.503	22.816	0.000
		2	0.246	-0.009	28.351	0.000
		3	0.088	-0.044	29.066	0.000
		4	-0.093	-0.160	29.880	0.000
		5	0.042	0.219	30.050	0.000
		6	0.144	0.109	32.044	0.000
		7	0.149	0.009	34.199	0.000
		8	0.022	-0.190	34.248	0.000
		9	0.141	0.307	36.234	0.000
		10	0.057	-0.090	36.564	0.000
		11	0.019	-0.015	36.601	0.000
		12	-0.014	-0.193	36.621	0.000
		13	-0.093	0.112	37.520	0.000
		14	-0.103	-0.098	38.639	0.000
		15	-0.082	0.016	39.354	0.001
		16	-0.022	-0.115	39.407	0.001
		17	-0.136	-0.057	41.449	0.001
		18	-0.083	0.006	42.220	0.001
		19	-0.107	-0.013	43.526	0.001
		20	-0.075	0.017	44.179	0.001

Date: 05/08/23   Time: 14:43
Sample (adjusted): 5 91
Included observations: 87 after adjustments

Autocorrelation	Partial Correlation		AC	PAC	Q-Stat	Prob
		1	0.279	0.279	7.0155	0.008
		2	0.103	0.027	7.9808	0.018
		3	0.142	0.115	9.8283	0.020
		4	0.040	-0.032	9.9810	0.041
		5	-0.043	-0.063	10.157	0.071
		6	-0.058	-0.049	10.477	0.106
		7	-0.093	-0.069	11.320	0.125
		8	-0.094	-0.039	12.192	0.143
		9	0.012	0.074	12.206	0.202
		10	-0.031	-0.033	12.304	0.265
		11	-0.049	-0.026	12.550	0.324
		12	-0.028	-0.029	12.630	0.396
		13	-0.054	-0.052	12.934	0.453
		14	-0.080	-0.056	13.618	0.479
		15	-0.031	0.008	13.719	0.547
		16	-0.038	-0.018	13.876	0.608
		17	-0.046	-0.015	14.109	0.659
		18	-0.005	0.001	14.112	0.722
		19	0.003	-0.004	14.114	0.777
		20	0.058	0.059	14.502	0.804

Heteroskedasticity Test: White
Null hypothesis: Homoskedasticity

F-statistic	3.109051	Prob. F(5,81)	0.0128
Obs*R-squared	14.00832	Prob. Chi-Square(5)	0.0156
Scaled explained SS	20.19247	Prob. Chi-Square(5)	0.0011

Test Equation:
Dependent Variable: RESID^2
Method: Least Squares
Date: 06/28/23   Time: 14:03
Sample: 5 91
Included observations: 87

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.001999	0.001209	1.654430	0.1019
GDP_PERCENT_YEARLY^2	0.254032	0.262293	0.968502	0.3357
GDP_PERCENT_YEARLY*FINF_PER...	0.558446	0.592270	0.942891	0.3485
GDP_PERCENT_YEARLY	-0.024006	0.034837	-0.689090	0.4927
FINF_PERCENT_YEARLY^2	0.387997	0.178935	2.168370	0.0331
FINF_PERCENT_YEARLY	-0.030130	0.030021	-1.003636	0.3185

R-squared	0.161015	Mean dependent var		0.002264
Adjusted R-squared	0.109226	S.D. dependent var		0.004004
S.E. of regression	0.003779	Akaike info criterion		-8.252078
Sum squared resid	0.001157	Schwarz criterion		-8.082015
Log likelihood	364.9654	Hannan-Quinn criter.		-8.183599
F-statistic	3.109051	Durbin-Watson stat		1.780673
Prob(F-statistic)	0.012841			

Series: Residuals	
Sample 5 91	
Observations 87	
Mean	-1.28e-18
Median	-0.005520
Maximum	0.154395
Minimum	-0.101122
Std. Dev.	0.047857
Skewness	0.546230
Kurtosis	4.092525
Jarque-Bera	8.653173
Probability	0.013213
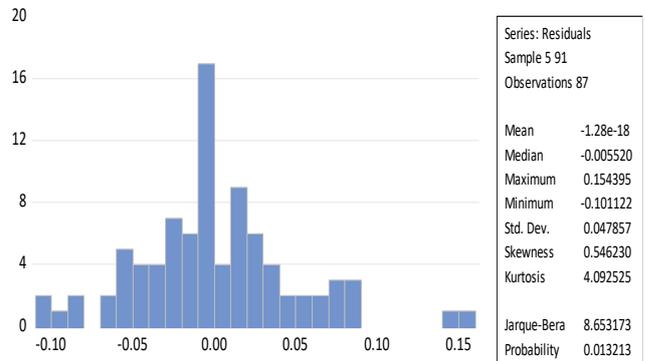
References

Ashwin, Julian, (2023), "Financial News Media and Volatility: Is There More to Newspapers than News?". Available at SSRN: https://ssrn.com/abstract=4350654 or http://dx.doi.org/10.2139/ssrn.4350654

Deloitte (2020), "Climate related concerns expressed by consumers, employees and voters". Available at: https://www2.deloitte.com/content/dam/Deloitte/ce/Documents/about-deloitte/ce-climate-sentiment-index.pdf

Eurostat Data Browser (2023), "Turnover and volume of sales in wholesale and retail trade". Available at: https://ec.europa.eu/eurostat/databrowser (Accessed: 01/04/23).

Fabienne Femenia (2019), "A meta-analysis of the price and income elasticities of food demand". [University works] Inconnu. 2019, 78p. hal-02103880

Firth, M. (1979), "The relationship between stock market returns and rates of inflation", Journal of Finance, Vol. 34(3), pp.743-749.

Friedman, M. (1970). "A Theoretical Framework for Monetary Analysis", Journal of Political Economy, 78(2), 193–238.

Hamburger, M. and Kochin, L. (1972) "Money and stock prices: The channels of influence", Journal of Finance, 27 (2) pp. 231-249.

Hernandez (1999), "Stock prices and the money supply: testing for informational efficiency", Florida Atlantic University.

Jaffe, J. and Mandelker, G. (1976) "The "Fisher Effect" for risky assets: An empirical Investigation", Journal of Finance, 31(2), pp. 447-458.

Jerónimo Martins, 2022. Annual Report, Lisbon: Jerónimo Martins. Available at: https://www.jeronimomartins.com/en/

Jerónimo Martins, 2021. Annual Report, Lisbon: Jerónimo Martins. Available at: https://www.jeronimomartins.com/en/

Jerónimo Martins, 2020. Annual Report, Lisbon: Jerónimo Martins. Available at: https://www.jeronimomartins.com/en/

Jerónimo Martins, 2019. Annual Report, Lisbon: Jerónimo Martins. Available at: https://www.jeronimomartins.com/en/

Jerónimo Martins, 2018. Annual Report, Lisbon: Jerónimo Martins. Available at: https://www.jeronimomartins.com/en/

Jerónimo Martins, 2017. Annual Report, Lisbon: Jerónimo Martins. Available at: https://www.jeronimomartins.com/en/

Jerónimo Martins, 2016. Annual Report, Lisbon: Jerónimo Martins. Available at: https://www.jeronimomartins.com/en/

Jerónimo Martins, 2015. Annual Report, Lisbon: Jerónimo Martins. Available at:

https://www.jeronimomartins.com/en/

Jerónimo Martins, 2014. Annual Report, Lisbon: Jerónimo Martins. Available at:
https://www.jeronimomartins.com/en/

Jerónimo Martins, 2013. Annual Report, Lisbon: Jerónimo Martins. Available at:
https://www.jeronimomartins.com/en/

McKinsey (2022), "The State of Grocery Retail 2022". Available at: https://www.mckinsey.com/industries/retail/our-insights/state-of-grocery-europe-2023-living-with-and-responding-to-uncertainty

OECD (2023), "Data warehouse", OECD.Stat (database), CPI. Available at:
https://doi.org/10.1787/data-00900-en (accessed on 01/04/23).

OECD (2023), "Data warehouse", OECD.Stat (database), GDP. Available at:
https://doi.org/10.1787/data-00900-en (accessed on 01/04/23).

Olomu, Edith 2015. Impact of macroeconomic variables on UK stock market: A case study of FTSE100 index. Master's Thesis University of East London School of Business and Law.

Ratanapakorn, O. and Sharma, S. C. (2007) 'Dynamic analysis between the US stock returns and the macroeconomic variables', Applied Financial Economics, 17(5), pp. 369-377.

Refinitiv DataStream (2023) Euro/Polish Zloty FX Cross Rate. Available at:
https://workspace.refinitiv.com (Accessed: 01/04/23).

Refinitiv DataStream (2023) Jeronimo Martins SA SGPS segments financials. Available at:
https://workspace.refinitiv.com (Accessed: 01/04/23).

Šimáková, J., Stavárek, D., Pražák, T. and Ligocká, M. (2019), "Macroeconomic factors and stock prices in the food and drink industry", British Food Journal, Vol. 121 No. 7, pp. 1627-1641.

United Nations, Department of Economic and Social Affairs (2022), "World Population Prospects 2022". Available at:
https://population.un.org/dataportal/home (Accessed: 01/04/23).

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Recommendation System

Level of Risk	SELL	REDUCE	HOLD/NEUTRAL	BUY	STRONG BUY
High Risk	0%≤	>0% & ≤10%	>10% & ≤20%	>20% & ≤45%	>45%
Medium Risk	-5%≤	>-5% & ≤5%	>5% & ≤15%	>15% & ≤30%	>30%
Low Risk	-10%≤	>-10% & ≤0%	>0% & ≤10%	>10% & ≤20%	>20%