MASTERS IN

FINANCE

MASTERS FINAL WORK

PROJECT

EQUITY RESEARCH JERÓNIMO MARTINS SGPS S.A.:

INTRODUCING AN ALTERNATIVE APPROACH TO THE CAPITAL STRUCTURE PUZZLE

JAKOV PAVLOVIKJ LATAS

JUNE 2023

MASTERS IN

FINANCE

MASTERS FINAL WORK

PROJECT

EQUITY RESEARCH JERÓNIMO MARTINS SGPS S.A.:

INTRODUCING AN ALTERNATIVE APPROACH TO THE CAPITAL STRUCTURE PUZZLE

JAKOV PAVLOVIKJ LATAS

SUPERVISOR:

VICTOR MAURÍLIO SILVA BARROS

JUNE 2023

Abstract

The present document is the report on an Equity Research of Jerónimo Martins S.G.P.S., SA (JMT). JMT is international Group based in Portugal with over 230 years of know-how in the food business. This report issues a buy recommendation for JMT, with a 2023YE price target of €24.9/share, applying a DCF FCFF Sum-of-the-Parts approach to each segment. The valuation comprises an upside potential of 22% from the January 13th, 2023, closing price of €20.4, with medium-low risk. To support this analysis, other valuation methods were used. Also, the valuation was subject to sensitivity analysis to address its risk.

This research work presents an extended chapter aimed at integrating alternative methods to gauge the capital structure that investors require the firm to uphold for future growth opportunities. This is done by referring to foundational financial theory set by Modigliani-Miller for calculating the optimal capital structure, as well as the contrasting theory introduced by Stewart C. Myers. The section provides a new approach in calculating an implied capital structure by investors by using the Myers (1984) findings on present value growth options (PVGO), assuming those growth opportunities are a perpetuity of cash flows required by investors from the firms' future project ventures.

Resumo

O presente documento é o relatório de Equity Research da Jerónimo Martins S.G.P.S., SA (JMT). A JMT é um Grupo internacional sediado em Portugal com mais de 230 anos de know-how no ramo alimentar. Este relatório emite uma recomendação de compra para a JMT, com um preço-alvo para 2023YE de €24,9/ação, aplicando uma abordagem DCF FCFF Sum-of-the-Parts a cada segmento. A avaliação compreende um potencial de valorização de 22% a partir de 13 de janeiro de 2023, preço de fechamento de € 20,4, com risco médio-baixo. Para apoiar esta análise, outros métodos de avaliação foram usados. Além disso, a avaliação foi sujeita a análise de sensibilidade para lidar com seu risco.

Este trabalho de pesquisa apresenta um capítulo estendido que visa integrar métodos alternativos para avaliar a estrutura de capital que os investidores exigem que a empresa mantenha para futuras oportunidades de crescimento. Isso é feito referindo-se à teoria financeira fundamental definida por Modigliani-Miller para calcular a estrutura de capital ideal, bem como a teoria contrastante introduzida por Stewart C. Myers. A seção fornece uma nova abordagem no cálculo de uma estrutura de capital implícita por investidores usando as descobertas de Myers (1984) sobre opções de crescimento de valor presente (PVGO), assumindo que essas oportunidades de crescimento são uma perpetuidade dos fluxos de caixa exigidos pelos investidores do projeto futuro das empresas empreendimentos.

Acknowledgements

I would like to express my deepest gratitude to my mother, father and sister who made my whole academic journey possible through every type of support. Their patience and continuous support have been pivotal to the completion of this thesis. They have been my pillars of strength, providing me with wisdom, challenging my ideas, and inspiring me to strive for excellence. The gratitude extends to the rest of my friends and family members. Their collective support has been one of the major influences during my academic path.

To my nephew Isak, as well as all other nephews and nieces (current and future), you have been a beacon of joy and laughter amidst the journey. I hope in time, if they choose to find and read this thesis, it will serve as an inspiration to pursue and succeed in whatever they choose in life.

To our academic advisor Professor Victor Barros, who tirelessly gave his time and effort to ensure the quality of this research, I extend my heartfelt appreciation. Your unwavering belief in our capabilities as a team, your constructive criticisms, and your patience have truly shaped our understanding of the topic at hand, which led us to win the CFA Challenge in Lisbon.

To Professors Tiago Cruz Goncalves and Raquel M. Gaspar, I extend my gratitude for their support during the CFA Challenge. I would like to also convey my thanks to them and the esteemed faculty members for their invaluable guidance and exceptional instruction throughout the duration of our master's program.

To my fellow team members, I thank you for the time we shared. It was an honor to work by your side and be able to bring a win to ISEG. It has truly been a team effort, and this achievement is ours to share.

To Professor Jacco JJ Thijssen, while I knew you for a short time during my studies, your extensive knowledge in the field led me to the proposition and conclusions in this thesis. I would like to thank you for all the time spent reviewing my work and consulting me on the topics of real options. I am truly grateful for your time and effort.

Lastly, I wish to officially extend my profound gratitude to Dr. Jan Oliver Staak and the International Office Deputy Head of Division, Melita Hofmeister, along with the entirety of the staff at Uniklinik Köln. Thanks to their unwavering dedication and professionalism, I have been able to maintain my health and continue my work at full capacity. Any unmentioned individuals from the team have my heartfelt appreciation; each contribution, no matter how small, has played a part in my journey.

To all mentioned and many more unmentioned, I am grateful. My accomplishments are not just a product of my effort, but a testament to all the support and faith you've put in me.

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.

Index

List of Figures

List of Tables

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 milions)
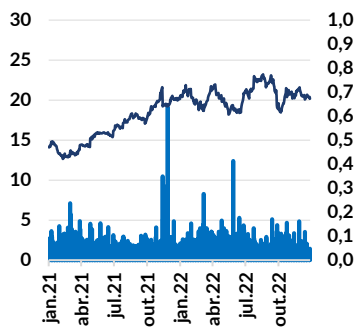
Source: Refinitiv

Figure 2: Number of stores growth by business segment (2017: index 100)
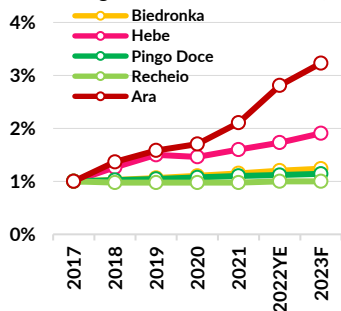
Source: Company Reports

Figure 3: ESG Risk Rating
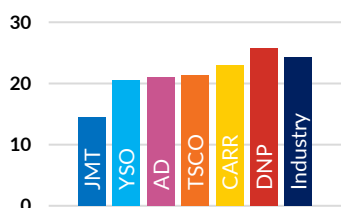
Note: Scores range from 1 to 100. Lower scores indicate lower risk.
Source: Sustainalytics

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 Jerónimo 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 (Figure 1). Assessing it as a medium-low risk, this recommendation is based on **(1)** resilient business model, **(2)** strong presence in growing markets, **(3)** family management with long-term perspectives, and **(4)** planned expansion to new markets.

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". 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.

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). The upward trend in growth is supported by opening stores in city centers to attain their proximity strategy (Figure 2:). 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), consumer trends are shifting towards discounter formats. Food inflation and larger scale of retailers are putting pressure on the small mom-and-pop stores (*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 (**Figure 3**). The company has an overall ESG score of 14.5 (out of 100, low risk), ranking as the 7th least risky company out of 195 considered in the Food Retailers segment (Sustainalytics) and an A score (highest would be 'AAA') by MSCI. The company was able to uphold 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).

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 with *Biedronka*'s profile of medium-small discounter stores and their strategy of proximity and presence in city centres.
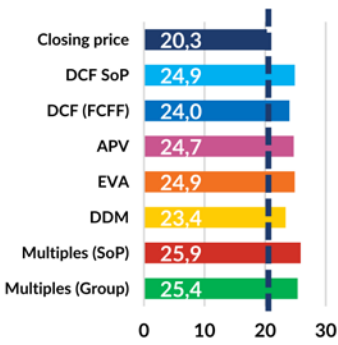
Figure 5: Sales Distribution 2022e

Source: 2022 preliminary results

Figure 6: Market Share Poland (2021YE)
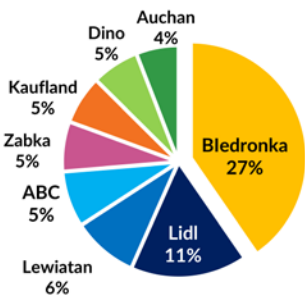
Source: Euromonitor

Figure 7: Market share – Food Retail (Portugal 2021YE)
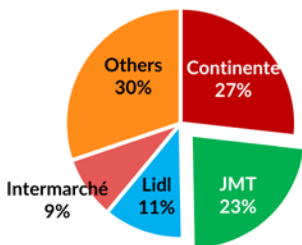
Source: Euromonitor, Team Estimates

Figure 8: Market share – Food Retail (Colombia 2021YE)
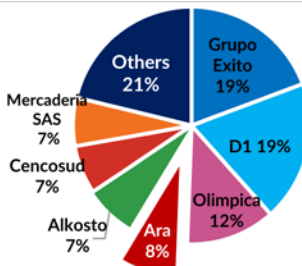
Source: Euromonitor

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 €25.9/sh. Additional valuation methods listed in Figure 4, 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 at 80-20% to 70-30% E/D 2022-30F. A comfortable dividend payout ratio (c. 85%) is assumed.

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%. 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

Jerónimo 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 main business activity is in Poland, with their *Biedronka* banner representing c.69% of sales and c.85% of EBITDA 2022e (Figure 5).

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 confirmed 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 an international recognition. 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 6). 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 branch) sum together more than 50% of the market (Figure 7). 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. 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) – see Figure 8. Competition is fierce. The competitor D1 was the fastest grower in the industry, as it reaped first-mover benefits.

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 business of JMT to grow from 5.2% 2017 to 5.7% by 2022YE.

Figure 9: Private Brand Suppliers (% local suppliers)
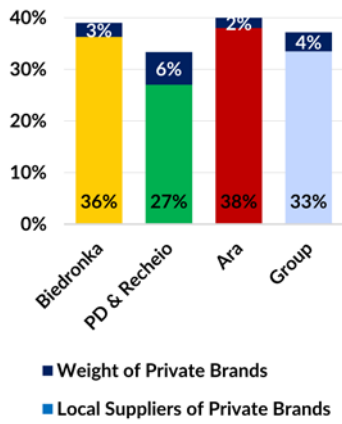
Source: Company Reports

Figure 10: Number of stores Poland

Biedronka	3395
Lewiatan	3200
Dino Polska	2156
Carrefour	901
Lidl	810
Netto	664
Auchan	
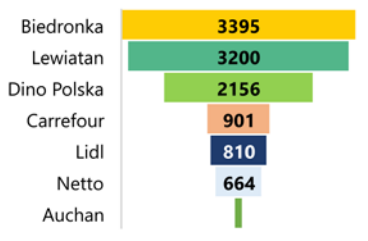
Source: Company Reports

Figure 11: Environmental analysis per €M sales

Source: UN Population Forecast

Table 1: Shareholder Structure (2022)

Shareholder	Ownership
Soc. Francisco dos Santos, B.V.	56%
Comgest Global Investors, S.A.S.	2%
Black Rock, Inc.	2%
T.Rowe Price Group, Inc.	2%
Others	38%

Source: Company Reports

Figure 12: Board background (%)

Source: Company Reports

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 behavior shifts, it is crucial to consider a holistic view moving forward. Online and offline are no longer competition, but complementary. JMT's 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. 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). Life expectancy is projected to rise, supporting timid albeit consistent growth potential.

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, no relevant harm to JMT is likely, considering its positioning across the food retail industry.

Environmental
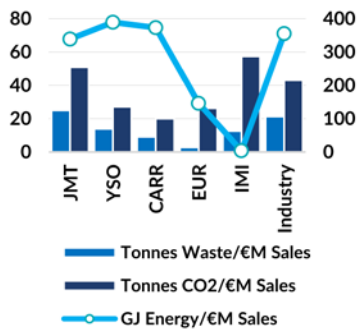
JMT's Environmental Protection Policy targets are restructured every 3-4 years, with several institutional standards implemented or in the process. Their most recent pledge, the Porto Climate Pact, escalates their Green House Emission reduction by reducing energy consumption by 10% per thousand Sales until 2023YE. The group's main pledge is carbon neutrality until 2040, meeting international requirements and pledges, but there is room for improvement (Figure 11). So far, they have largely reduced their carbon footprint, with the most considerable effect from Biedronka at c.-82%. The Taxonomy under the new Corporate Sustainability Reporting Directive will add a burden on 'brown' companies, favouring the green. Being at the forefront in ESG will allow JMT not to be penalized in credit spreads for financing purposes.

Social

Following their corporate responsibility strategy, reformulations in the group's private brands are constantly made in fast-moving consumer goods to fight diet-related diseases by lowering levels of salt, fat, saturated fat, and sugars. 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.

Regarding the participation of women in the workforce, JMT is very well positioned. 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). The community is also served indirectly by the foundation of the main shareholder, FFMS, which engages with society in a plethora of initiatives.

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 (Figure 12).

Executive Management | The groups C-level executives are all of Portuguese nationality 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

Figure 13: Inflation per business segment JMT (%)
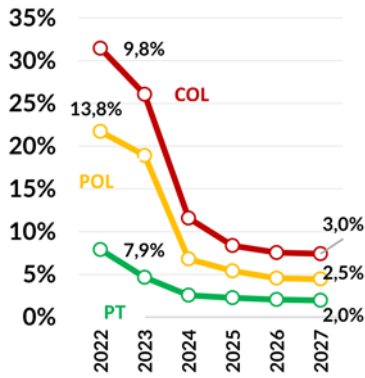
Source: IMF

Figure 14: Brand Loyalty for Polish consumers
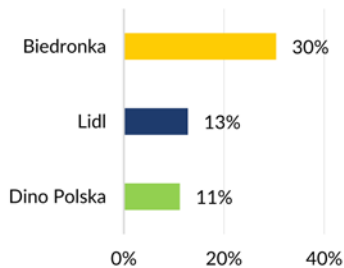
Source: Statista

Figure 15: Total store evolution (thousands)
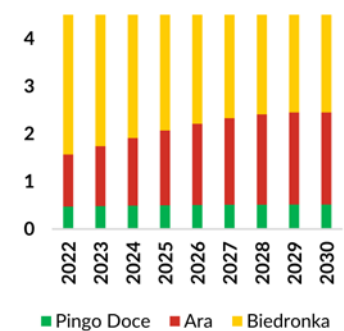
Source: Company Reports

Table 2: Peer List for JMT (SARD approach)

Poland	Lidl
	Carrefour
	Netto
	Eurocash
	Dino Polska
	Auchan
Portugal	Continente
	Auchan
	Lidl
	Aldi
	Mercadona
Colombia	Tiendas D1
	Almacenes Exito
	Olímpica
	Cencosud

Source: Team Estimates

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 post-pandemic reality offers a different set of conditions, allowing for a slight increase in the available income in every country in which the Group operates. The war continues to impact the global economy, contributing to the fragmentation of international trade and investment. Sanctions on Russia after its invasion of Ukraine (Feb.24) pushed energy prices across Europe, increasing costs with a noticeable impact on margins.

Countries reliant on natural gas imports will be affected not only for heating purposes (which account for 30% of energy demand) but also for commodities. Costs of agriculture production, metal extraction and refining, and of renewable energy technologies will be affected the most. Exports from Ukraine will interrupt agricultural production in 2022, prices are forecasted to rise 18% YE 22.

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 don't pose a significant weight in the global company's performance.

Brand recognition | Brand loyalty stand in high demand, as consumers seek a more personal and high-quality experience (Figure 14). Consumers are now more sensitive not only to prices, but also to transparent information and particular products related to 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.

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 (Deloitte 2022). Salary is not the only concern anymore. Flexibility, corporate culture, and diversity are highly valued.

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 a doubling in their store count by 2030YE. 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 groups extensive local suppliers' network.

Peers

In Poland, main competitors are the German discounter Lidl, Kaufland, Dino and Auchan (market shares of 11.0%, 4.6%, 4.5% and 4.0%, respectively), also presenting a discount format.

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.

As for Colombia, D1, a private hard discount retailer, competes both in proximity (neighborhood stores) and in price, being ARA's biggest competitor. Another major competitor is Grupo Exito, a multi-format retailer supported by the French multinational Casino-Guichard Perrachon, also present in Brazil. 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 17: European markets' willingness to pay premium prices
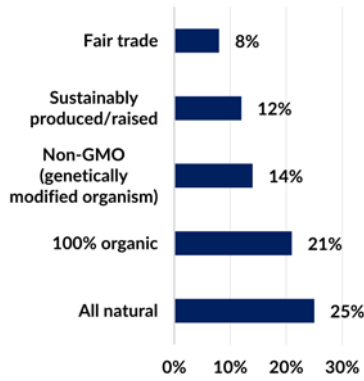
Source: Euromonitor | Survey

Figure 18: PESTLE Analysis
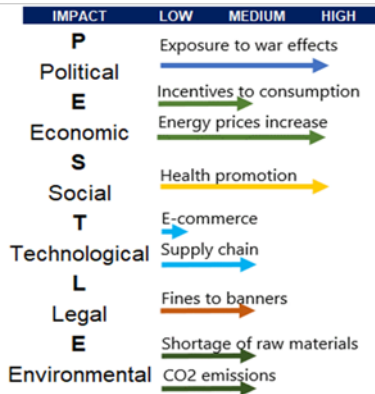
Source: Team Estimates

Figure 19: Porter's 5 Forces
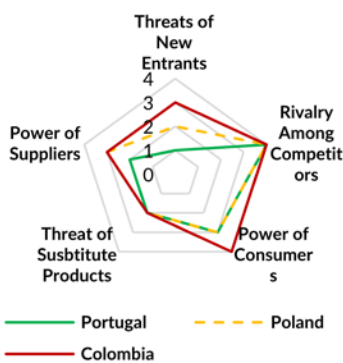
Source: Team Estimates

**** Using the intrinsic value of Pingo Doce

Source: Team Estimates

Table 4: 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

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 | According to a study regarding sustainable initiatives, 68% of Portuguese would be willing to pay higher prices for services or products from brands focused in sending a positive message regarding social and environmental issues. 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.

The fact that there is no guarantee of appropriate gas storage on the long term provides an incentive to an alternative energy strategy transition (such as renewables).

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 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.

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 costumers through multiple channels including the new growing online trend.

Power of Suppliers – MODERATE 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. 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, due considerably to emigration. 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

Figure 20: FCF & Revenue forecast JMT (billion)
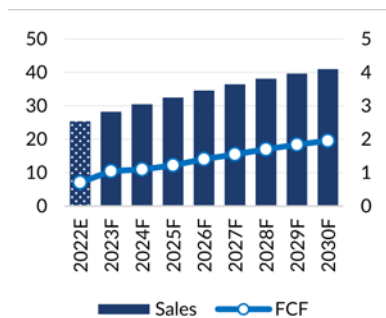
Source: Team estimates

Figure 21: Population growth rate per country (2018: base 100)
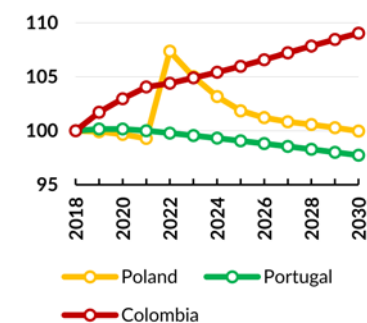
Source: UN

Figure 22: GDP growth per country
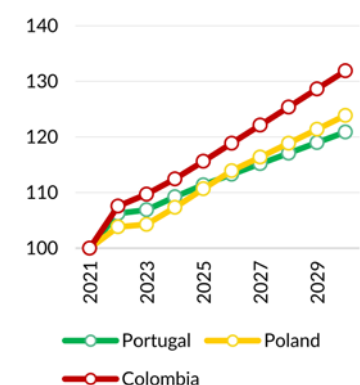
Source: IMF 2022

Figure 23: Forecasted LFL
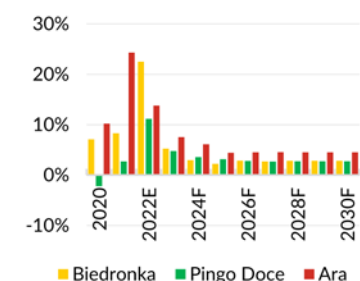
Source: Team estimates

Figure 24: EBIT margin & FCF Poland

Source: Team estimates

imports, and 31% coming from renewable sources. Consumers have become price-sensitive since the sovereign debt crisis and pay attention to promotional campaigns.

Colombia | Being one of the fastest-growing countries (3% CAGR 2013-2022YE, 2.3% more than the region) in Latin America, with still high expectations. (3% real GDP CAGR 2022-2030YE). 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) and high growth, with consequences further increased by the country's inequality level (most unequal in Latin America, 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).

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. 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 €1.1/sh or €0.3/sh to our base price target, respectively, yet with relevant uncertainty. 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 m^2 per store (*sqm*), for each business unit. The main formulation is:

(1) $LFL_n = (1 + infl) \times (1 + GDP \times \theta) \times (1 + pop) \times (1 + \Delta Fx)$
(2) $Sales_n = Sales\ p/sqm_{n-1} \times (1 + LFL_n) \times average\ total\ sqm$

Appendix 5 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.

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

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 4).

Influenced by the war in Ukraine, LFL revenue growth in Poland for 2022E is expected to be +22.5%, 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). 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. The Retail Tax in Poland exerts a negative effect on JMT's equity value of -€3.1Bn, or -€4.9/sh.

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%).

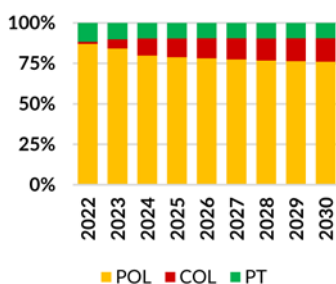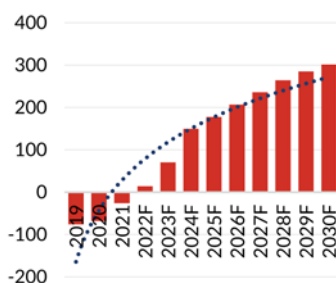**Figure 27:** HoReCa evolution vs Recheio revenues

Source: Team estimates

Figure 28: EBIT per segment (%)

Source: Team estimates

Figure 29: Ara's EBITDA evolution

Source: Team estimates

Table 5: JMT SoP's Price Target

Segment	WACC	Terminal Growth	Contribution to Price Target
Portugal	6.8%	1.0%	17.6%
Poland	10.4%	2.0%	84.7%
Colombia	17.2%	2.5%	7.2%
Others	10.9%	2.0%	-9.6%

Source: Team estimates

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 proximity efforts. New stores are expected to be smaller and in neighborhoods of large cities (like Lisbon and Porto).

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 4).

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 - see Appendix 5). 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. LFL top-line growth is expected to be at 5.2% CAGR2022-2030YE, 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 7.2% of group's EV, 66% more than Recheio.

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

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. **Terminal growth rate** is expected to be 2%, 1%, and 2.5% in Poland, Portugal and Colombia, respectively (Table 5). The growth was defined considering the company's reinvestment and macroeconomic prospects in each geographical location.

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.

Dividend Discount Model | JMT's dividend strategy is centered 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 payout ratio of 85%, leaving enough room for expansion, since the cash balance never

Figure 30: ROE & ROIC
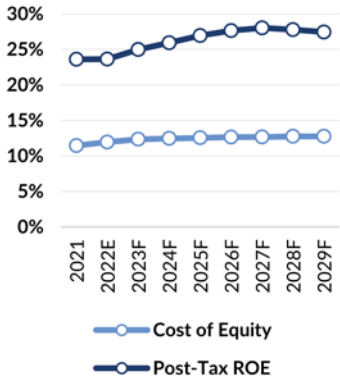
Source: Team estimates

Figure 31: Cash availability for debt repayment
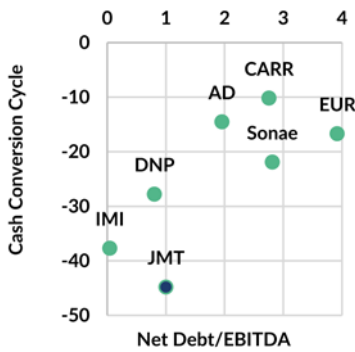
Source: Team estimates

Figure 32: Effects of possible expansion to Romania
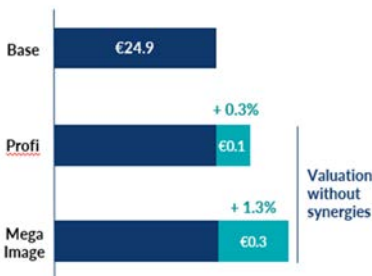
Source: Team estimates

Figure 33: EPS & DPS
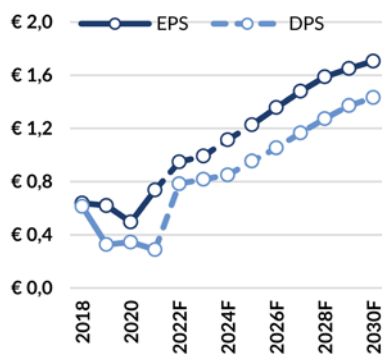
Source: Team estimates

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.

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 shileds were obtained with the weighted cost of debt considering country specific risks. This alternative method also provides a buy recommendation at €24.7/sh.

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.

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 (See Appendix 12). 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 €25.9/sh, which aligns with the buy recommendation under all previous models (Appendix 13).

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 €25.4/sh.

Expansion ahead: 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, and there is 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 €1.1/sh and Profi €0.3/share to JMT's share price.

Financial Analysis For further details please refer to Appendix 4

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 stores 2030YE).

Biedronka presents an unbeatable price-quality ratio, allowing 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 throughs hypermarkets. 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.

Figure 34: Cost of equity vs ROE
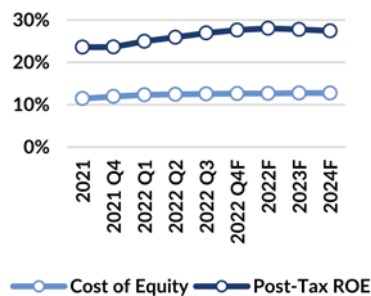
Source: Team estimates

Figure 35: Value Creation for Shareholders
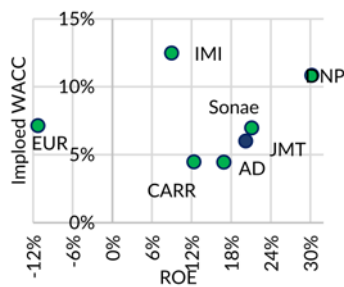
Source: Team estimates

Figure 36: Risk & Return (Altman Z-score)
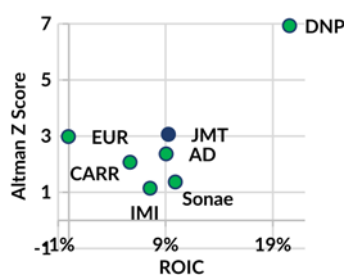
Source: Team estimates

Figure 37: Risk Matrix
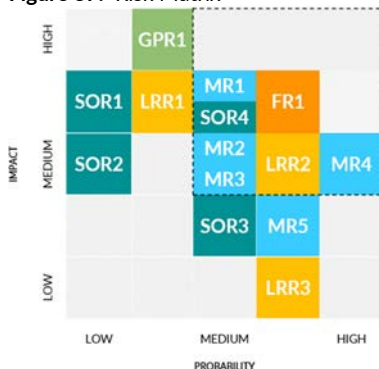
Source: Team estimates

Figure 38: Exchange rate evolution
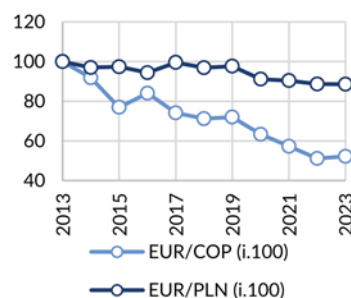
Source: European Central Bank

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, 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 ROIC, as financial leverage is not amplifying shareholder's return. 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 financial stability, Figure 25) 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 be able to return value to investors in the form of high dividend payouts. The 5Y average trailing dividend yield was 3.1%, with an average payout 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% payout 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 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

For further details please refer to Appendix 14

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 5.93%. 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 5.47% (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
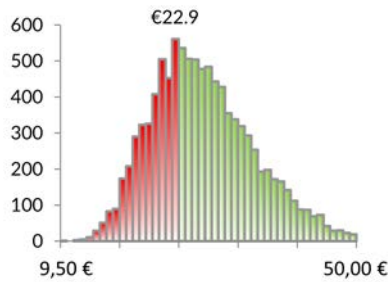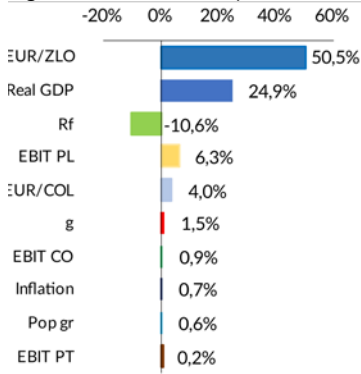
27.1% 2022YE, followed by Poland 21.5% 2022YE. Food and beverages represent around 20% of total expenditure of the average polish household expenditure and 17.4% 2021YE in Portugal. These increased prices affect gravely consumers' budgets. Given the high competition in the food retail market, and customers 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 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, that 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.

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 -0.5% (-9.8% or -€2.4/sh) variation of all countries' real GDP growth rates impacts valuation more than the other stressed variables. The Blue-Sky scenario (+21.0% or +€5.2) implies a combination of several positive impacts like a +0.5% shift in EBIT margins, real GDP and g, and -0.15% RFR. The Grey-Sky scenario (-18.0% or -€4.5) implies the opposite combination of factors.

Monte Carlo simulation

With the use of a 10,000 trials Monte Carlo simulation to further support our risk analysis, in 65% of cases a buy recommendation (price target > €22.93/sh), with a mean of €26.2/sh and median of €25.31/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 -0.75% impacts the price target in -€7.3/sh (or -29.3%).

We conclude that the most sensitive variable to the price target is margins, and specially the 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 15).

		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

Figure 41: Scenario Analysis

Source: Team estimates

Figure 42: Stock evolution (€/sh and volume in milions)

Source: Refinitiv

Figure 43: Valuation methods

Note: average multiples include EV/EBITDA and EV/EBIT
Source: Team estimates

JMT: Introducing an alternative approach to the capital structure puzzle

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.

Additive approach to the forecasts

We issue a **BUY** recommendation for Jerónimo 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 (Figure 42). 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. Our additional valuation methods support this recommendation (Figure 43).

An alternative to the capital structure puzzle

The proposition

This section aims to provide a comprehensive proposition by building upon the paper "The Capital Structure Puzzle" set forth by Myers (1984), focusing on the determination of how companies choose their financing methods and strive towards achieving an optimal capital structure, thus maximizing firm value. While the propositions set forth by Modigliani and Miller (1958) offer guidance to managers in their financing decisions based on the concept of an optimal capital structure, empirical evidence indicates that companies often deviate significantly from this "perfect world" framework.

The objective of this study is to utilize the conflicting propositions of MM (1958), as well as the contributions of Stewart C. Myers (1984), in order to provide valuable advice to managers on how to structure their capital effectively, by gauging investor expectations on financing decisions. Additionally, it aims to assist investors in deriving appropriate discount rates for cash flow forecasts, leading to a more accurate estimation of a company's intrinsic value and improved modelling of its operations.

The proposed model incorporates several theories to explain variations in capital structure across companies. Using JMT as a case study, the analysis begins by calculating its optimal capital structure and subsequently examines the reasons why this capital structure differs from the theoretical optimum.

One theory that sheds light on the observed deviations is the pecking order theory, as suggested by Stewart C. Myers (1984). This theory recognizes the presence of information asymmetry between managers and investors. Companies, in line with the pecking order theory, prioritize internal financing, such as retained earnings, as the first choice for funding their investment opportunities. If internal funds are insufficient, companies turn to debt financing rather than issuing equity, as equity issuance can lead to adverse signalling effects. The pecking order theory provides insights into the actual financing behaviour of companies, deviating from the idealized assumptions of MM (1958).

Furthermore, the model integrates the findings the paper on "Do Family Firms Use More or Less Debt?", Imen Latrous & Samir Trabelsi (2010). This research highlights the influence of family control on capital structure decisions of publicly traded firms. It reveals that family-controlled firms tend to have lower levels of debt compared to non-family-controlled firms in certain situations. This can be attributed to the desire of family owners to maintain control and the alignment of interests between owners and managers, reducing agency costs.

In addition to the theories, the model incorporates the views on conflicts between equity and debt holders. "Theory of the Firm: Managerial Behavior, Agency Costs and Ownership Structure" by Jensen & Meckling (1976), which is a cornerstone in the study of agency problems in firms covers a variety of agency issues, the conflict between bondholders and shareholders is an important part.

The conflict essentially arises because shareholders and bondholders have different objectives. Shareholders might want the firm to undertake risky projects because they share in the upside if these projects are successful. On the other hand, bondholders, who get a fixed return, bear the downside risk if these projects fail because the risk increases the chance of bankruptcy, and in the event of bankruptcy, bondholders may not receive their full promised payments. This divergence of interests between shareholders and bondholders is a source of agency costs.

Jensen & Meckling (1976) argue that agency costs arise due to the separation of ownership and control in a firm and the resultant conflicts of interest. In this context, the costs associated with the bondholder-shareholder conflict are a form of agency cost. Shareholders, in an attempt to maximize their wealth, may engage in activities that increase the risk of the firm, such as investing in risky projects, increasing leverage, or paying out large dividends, all of which can be detrimental to the bondholders.

They further suggest that these agency costs will be reflected in the price that bondholders will pay for a firm's debt. If bondholders anticipate that shareholders will act in a way that is not in their interest, they will demand a higher yield to compensate for the increased risk, raising the firm's cost of debt.

It's important to note that while Jensen and Meckling discuss this issue, the paper covers a broader range of topics around agency costs, and not all sections may be directly related to the bondholder-shareholder conflict.

By employing these assumptions as implied divergence from the optimal capital structure, it becomes possible to derive the capital structure desired by investors for the future financing of the company, providing valuable insights and guidance. The combined analysis of the pecking order theory, the impact of family control, and the conflict of interest between shareholders and debtholders enhances our understanding of the factors driving variations in capital structure across companies. Jeronimo Martins serves as a case study in applying the proposed model.

Setting the field, MM approach

Modigliani and Miller (1958) proposed the theory of optimal capital structure, which has had a profound impact on the field of corporate finance. Their seminal work, published in 1958 and 1963, challenged conventional notions of how a firm's capital structure affects its value and financing decisions. The MM theory, often referred to as the irrelevance proposition, revolutionized the understanding of capital structure dynamics.

At the core of the MM theory is the notion that, under a set of idealized assumptions, the value of a firm is independent of its capital structure. MM's (1958) initial proposition assumes a perfect world without taxes, bankruptcy costs, transaction costs, asymmetric information, and other market imperfections. In this frictionless environment, they argue that the way a firm finance's its operations through debt or equity has no impact on its overall value.

However, under the assumption of corporate taxes, MM demonstrated that the value of a leveraged firm can exceed that of an unleveraged firm due to the tax shields provided by interest payments. The tax shield represents a reduction in taxable income, resulting in lower tax obligations and, consequently, higher after-tax cash flows. This tax advantage creates an incentive for firms to increase their debt levels to maximize the value of the firm.

To calculate the optimal capital structure under the presence of taxes, MM introduced the concept of the trade-off theory. This theory suggests that firms must strike a balance between the tax advantages of debt financing and the costs associated with financial distress. Increasing debt levels may amplify the risk of financial distress, leading to higher bankruptcy costs, agency problems, and potential conflicts with debtholders.

In determining the optimal capital structure, firms must assess the benefits of tax shields against the potential costs of financial distress. MM argued that there exists an optimal debt-to-equity ratio where the tax advantages of debt financing are maximized, while the costs of financial distress are minimized. Firms can calculate this optimal capital structure by comparing the present value of the tax shields with the present value of the costs associated with financial distress.

Figure 44: The Capital Structure Puzzle
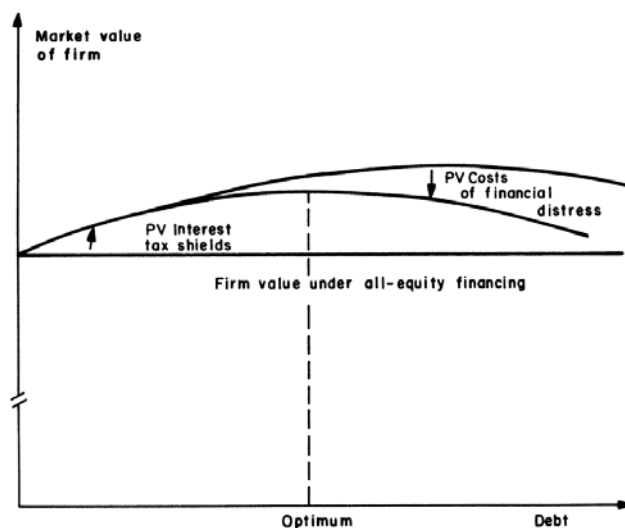
Source: Stewart C. Myers (1984)

However, it is important to note that the assumptions underlying the MM theory are highly idealized and do not accurately reflect the complexities of real-world markets. In practice, various factors such as taxes, bankruptcy costs, agency problems, and information asymmetry influence capital structure decisions and can lead to deviations from the idealized MM framework.

While the MM theory may not perfectly reflect real-world complexities, it remains a foundational concept in the field of corporate finance. It highlights the importance of understanding the trade-offs and considerations involved in capital structure decisions. Modern research continues to build upon the MM framework, incorporating market imperfections to develop more nuanced theories and practical guidelines for optimal capital structure choices.

Sheridan Titman & Roberto Wessels (1988), through their empirical paper, "The Determinants of Capital Structure Choice", investigate the determinants of firms' capital structures that extend the MM theorem.

They consider a range of theoretical perspectives that have been proposed to explain why firms choose different capital structures, including the trade-off theory (which is a refinement of Modigliani-Miller theorem incorporating taxes, bankruptcy costs etc.), the pecking order theory, and agency theory. Titman & Wessels' (1988) paper shows that a firm's capital structure is determined by a range of factors, including its growth opportunities, the tangibility of its assets, its profitability, and the uniqueness of its products. This provides a more nuanced view than the original MM theorem.

Our proposition, however, aims to extend the existing framework by analysing the financing decisions of JMT and determining the optimal capital structure set by MM for the company. To achieve this, the study utilizes a model developed by Aswath Damodaran (2018) to calculate the optimal capital structure. This model serves as a cornerstone in deriving the implied yield and capital structure desired by investors.

The calculation of the optimal capital structure involves evaluating various factors such as the cost of debt, cost of equity, tax shields, and the risk profile of JMT. By incorporating these inputs into the model, it becomes possible to determine the combination of debt and equity that maximizes the value of the company and aligns with the expectations of investors.

The optimal capital structure model essentially seeks to identify the mix of debt and equity financing that will minimize a company's weighted average cost of capital (WACC) and thus maximize firm value.

Steps towards the model:

Cost of Equity | Calculated using the Capital Asset Pricing Model (CAPM), which requires inputs such as the risk-free rate, the company's beta (a measure of its systematic risk), and the expected market return. It is the same assumption in the initial valuation phase, and the estimates go in line with JMT's valuation.

Estimating Pre-Tax Cost of Debt | The estimates for cost of debt are explained in previous sections as well as an appendix item.

Estimating Tax Rate | The tax rate taken into consideration for the model is not the marginal tax rate, as the creator of the model suggests, but the estimated cash flow tax rate calculated and forecasted using the Deferred tax assets and Deferred tax liabilities items. In conclusion, the tax rate is the 27% considering all geographical locations JMT operates in. The method can be found in the paper appendix.

Probability of Default and Cost of Distress | This step considers the likelihood of financial distress and bankruptcy, which increase with higher debt levels. The firm's financial health, business risk, and industry characteristics play a significant role in this. The likelihood is taken as the probability of default set by credit rating agencies together with the implied credit rating of JMT, and the level of debt cost they would incur if the default event happened (calculated as the total debt multiplied by probability of default). The value is expressed as a reduction in the EBITDA value of the firm, and in turn its cash flows.

Weighted Average Cost of Capital (WACC) | WACC is calculated using the cost of equity, the cost of debt (after tax), and the proportions of debt and equity in the company's capital structure at current market levels. For the case of JMT, debt is calculated as the book value since no market value exists.

Optimizing the Capital Structure | By modelling different proportions of debt and equity, the model identifies the capital structure that minimizes the WACC. This is considered the optimal capital structure.

The output of the model gives us a **D / V ratio of 30% for JMT**, almost double of the current c.15% that JMT holds as its capital structure. The possible reasons for these deviations are considered in the further sections.

Table 6: Output Summary, Optimal Capital Structure

	Current	*Optimal*
Debt to Capital	13,17%	30,00%
Debt to EBITDA	1,37	3,13
Interest Coverage	38,98	3,11
Cost of capital	9,21%	8,57%
Enterprise value	$18.281.974.624	$18.372.981.967
Value per share	$25,20	$25,34

Source: Aswath Damodaran Model on Capital Structure, NYU Stern Website (2018)

It must be mentioned that the practical utilization of these models inherently involves a degree of inaccuracy due to the requirement of numerous assumptions and estimates. Additionally, the specifics could demonstrate variability based on the clearness of Damodaran's model that is employed.

Furthermore, it is important to recognize that Damodaran's models are predominantly disseminated for scholastic objectives. When these models are employed in actual business scenarios, they necessitate appropriate modifications and tailoring to align with the unique characteristics and specific circumstances of the company under examination.

The reasons of deviations

When analysing the case of Jeronimo Martins (JMT), multiple factors emerge to explain why the company deviates from its optimal capital structure. Notably, JMT is predominantly a family-owned enterprise, and its decision-making processes and financing requirements are closely intertwined with the family's needs and preferences.

Two prominent theories that can help explain the deviations in capital structure are the pecking order theory proposed by Myers (1984) and the family-owned company research conducted by Imen Latrous & Samir Trabelsi (2010). However, it is important to note that these theories go beyond the sole influence of market conditions on managerial decisions during the financing process.

Pecking Order Theory | The Pecking Order Theory, originally proposed by Stewart C. Myers (1984), offers valuable insights into companies' financing decisions. This theory asserts that firms prioritize their sources of financing based on the information asymmetry between managers and investors. According to the Pecking Order Theory, companies prefer internal financing, such as retained earnings, as the first choice for funding their investment opportunities. When internal funds are insufficient, firms resort to debt financing instead of issuing equity, as equity issuance can potentially send adverse signals to the market and lead to valuation discounts.

The Pecking Order Theory explains why companies deviate from their optimal capital structure. Asymmetric information between managers and investors often results in internal funds being the most readily available and least costly source of financing. External financing, particularly equity issuance, can be seen as a last resort due to potential signalling effects that may negatively impact the firm's valuation. Consequently, companies tend to rely more heavily on debt and retained earnings, leading to a capital structure that differs from the theoretically optimal proportions suggested by models like the Modigliani and Miller theorem.

Family Control and Financing Decisions Theory | The paper titled "Do Family Firms Use More or Less Debt?" by Imen Latrous & Samir Trabelsi (2010) explores the relationship between leverage and family control in firms. The study examines two competing hypotheses regarding the debt levels of family-controlled firms and investigates the influence of family involvement in management on firm leverage.

The first hypothesis suggests that family-controlled firms may exhibit lower levels of debt compared to non-family firms. This hypothesis is based on the notion that family controlling shareholders aim to mitigate the risks associated with their concentrated human and financial investments. By employing less debt, family firms seek to limit their exposure to financial vulnerabilities.

The second hypothesis posits that family-controlled firms may have higher levels of debt. This perspective argues that family controlling shareholders, driven by the desire to consolidate and maintain control, opt for higher debt levels to further entrench themselves in the firm. This strategic use of debt allows them to solidify their decision-making authority and protect their interests.

To test these hypotheses, the authors analyse a sample of 118 firms listed on the French stock market over the period of 1998-2002. The results of the study reveal that family firms indeed utilize significantly less debt compared to non-family firms. This finding supports the hypothesis that family-controlled shareholders tend to be more risk-averse, prioritizing stability over aggressive leveraging.

Additionally, the study examines the impact of family involvement in management on firm leverage. The findings indicate that family firms with a family member serving as CEO tend to employ higher levels of debt compared to family firms with external CEOs. This suggests that when family members assume leadership positions, the conflict of interest between shareholders and managers becomes less significant. Family CEOs, driven by their control objectives, may utilize debt as a tool to enhance their control and extract greater private benefits. However, it is worth noting that when considering the presence of an outside block holder, family member CEOs tend to decrease their reliance on debt for entrenchment purposes.

Overall, the paper contributes to the understanding of the capital structure decisions made by family-controlled firms. It demonstrates that family firms exhibit lower debt levels, indicating a conservative approach to leverage. Furthermore, the study highlights the influence of family involvement in management, revealing that the presence of a family member as CEO can impact the firm's debt choices.

Maximiliano Gonzalez et al. (2018) also investigate this phenomenon even further, specifically focusing on the trade-off between risk aversion and the risk of losing control in their paper "Family Firms and Debt: Risk Aversion versus Risk of Losing Control".

The study reveals that family firms with family involvement in management exhibit varying debt levels. For younger firms where the founder or heirs are actively managing the business, lower debt levels are observed. However, as these firms mature, their debt levels tend to increase. This indicates a shift from conservative financing practices to a preference for higher debt as the firm ages.

When family involvement stems from both direct and indirect ownership, a positive relationship between family ownership and debt levels is found. This suggests that external supervision, accompanying higher debt levels, helps mitigate the risk of losing control. On the other hand, when families are represented on the board of directors but not involved in day-to-day management, lower debt levels are observed. This indicates that family directors may exhibit a more risk-averse approach, influencing the firm's decision to maintain lower debt levels. Overall, family firms face a complex trade-off between risk aversion and the need for growth financing and control, shaping their capital structure decisions.

For the case of JMT, the managerial directions tend to be different since the company can be viewed as a mature one, but debt levels are still below optimal. This can only be explained by the controlling family having higher levels of risk aversion, most likely stemming from the Brazil failure.

Explaining Deviations from Optimal Capital Structure | By combining the insights from the Pecking Order Theory and the Family Control and Financing Decisions findings, a more comprehensive understanding of why companies deviate from their optimal capital structure emerges. The inherent information asymmetry between managers and investors, as highlighted by the Pecking Order Theory, leads firms to prioritize internal financing and debt over equity. This preference for internal funds aligns with the conservative approach often observed in family-controlled firms due to their strong desire to maintain control, reduce agency costs, and access alternative financing sources.

Furthermore, the Pecking Order Theory explains why companies may exhibit a reluctance to issue equity, as it can be costly and potentially dilutive to ownership. Family-controlled firms, driven by their long-term perspective and the preservation of control, are more inclined to rely on internal financing.

Myers proposition

Stewart C. Myers has made significant contributions to the understanding of a firm's value and its optimal capital structure through his works, including "The Capital Structure Puzzle" (1984) and "Determinants of Corporate Borrowing" (1977). These studies delve into the complexities of evaluating a company's worth by considering the combination of the value of assets in place and the present value of growth options.

In "The Capital Structure Puzzle" (1984), Myers addresses the puzzling phenomenon of observed variations in capital structure among firms, despite the theoretical propositions put forth by Modigliani and Miller's irrelevance theorem. This theorem suggests that, under ideal market conditions, a firm's capital structure does not impact on its overall value. However, empirical evidence consistently demonstrates diverse capital structures among companies. Myers introduces the concept of the pecking order theory to shed light on this puzzle and is one of the reasons why JMT is deviating from its optimal capital structure.

Moving to "Determinants of Corporate Borrowing", Myers (1977) explores the factors that influence a firm's decision to borrow. He argues that the value of a firm is not solely determined by its existing assets but also by the present value of growth options. Growth options represent the potential for future profitable investments and expansion. Myers emphasizes that borrowing allows firms to capitalize on these growth options, thereby enhancing their overall value.

By considering the present value of growth options, Myers provides a framework for understanding why companies choose to borrow despite the costs associated with debt financing. Borrowing enables firms to invest in projects with positive net present values, facilitating the realization of growth opportunities and increasing their overall value. This perspective challenges the notion that debt is inherently detrimental to a firm's worth and underscores the significance of incorporating growth options into the valuation process.

$$Value\ of\ Firm = \ Value\ of\ firm\ with\ assets\ in\ place + Present\ Value\ of\ Growth\ Options\ (PVGO)$$

Source: Stewart C. Myers (1977), p. 150

In essence, Myers' works emphasize that the value of a firm extends beyond the value of its existing assets. The present value of growth options, representing the potential for future profitable investments, should be considered. By integrating growth options into the valuation framework, Myers highlights the importance of considering a firm's capacity for future expansion and its potential to generate additional value. Moreover, the pecking order theory sheds light on deviations from the theoretically optimal capital structure as firms prioritize internal financing to mitigate information asymmetry concerns. Overall, Myers' contributions have significantly shaped the understanding of capital structure decisions and the holistic evaluation of a firm's value considering growth options.

Calculating PVGO

Calculating the present value of growth options from the current stock price involves two routes: i) estimating the value of future investment opportunities and discounting them to their present value or ii) estimating the value of current assets in place and subtracting the results from the current market value of the firm in order to arrive at the implied PVGO by investors.

The first step in estimating the present value of growth options is to identify the specific growth opportunities available to the company. These opportunities can include new product launches, market expansions, research and development initiatives, acquisitions, or any other potential investments that are

expected to generate future cash flows. While this process is gruelling and biased to the analysts' assumptions on growth opportunities, the more accurate approach for our proposition is using the second way of calculating.

$$PVGO = Market\ capitalization\ of\ firm - Intrinsic\ value\ of\ firm\ with\ no\ growth\ assumption$$

The model assumes a value of PVGO inferred from the current stock price, and an assumption of intrinsic value with operations only using assets under place, or in other words using a DCF model with no growth assumption to derive the intrinsic value of JMT. In the case that the company's intrinsic value with its no growth assumption is above the current market price, we would conclude that investors are satisfied with its current capital structure and future projects would be financed at the status quo.

While we have used the SoP DCF approach to value the company, we can assume no further expansion opportunities in the model, with growth coming only from its fundamental variables. This way we would arrive at the value **€21.70/sh**. More blankly put, this would be the value of the company if it chooses not to expand to any more future operations, and would not open any new stores, nor acquire new companies (it does, however, include refurbishments on stores). It must be mentioned that the cost of capital would remain the same and be kept aligned with the predetermined assumptions.

Given that my analysis is focused on the stock price and PVGO at the end of 2022, it would be most sufficient to incorporate the latest available data in my estimations. As of the close of trading on June 29, the most recent share price stands at €25.2/sh. This figure will serve as a critical point of reference in my projections moving forward.

Table 7: PVGO Calculation

PVGO output, in '000 EUR	
Market capitalization	15,694.57
Intrinsic value w/o growth	13,658.72
PVGO (M. Cap – No growth)	**2,035.85**

Source: Team estimates

It is important to note that estimating the present value of growth options involves inherent uncertainties and assumptions. Future cash flows and the success of investment opportunities are subject to various risks and uncertainties, making accurate estimation challenging. Sensitivity analysis and scenario modelling can help assess the impact of different assumptions and variations in cash flow projections on the present value of growth options.

In conclusion, calculating the present value of growth options from the current stock price involves projecting future cash flows, discounting them to their present value using an appropriate discount rate, and summing these discounted cash flows. This process allows for the assessment of the value of the company's growth opportunities and their impact on the overall valuation of the stock.

Building on Myers proposition

Utilizing the Myers formula, which posits that a company's value is the sum of its assets in place and the present value of growth opportunities (PVGO), we propose a methodology to infer the yield required by investors for the company's growth options. This approach also allows for the estimation of the expected capital structure desired by investors for these growth options, considering both the current and potential future value.

The PVGO represents the present value of expected future cash flows resulting from growth opportunities beyond the company's existing operations. It captures the additional value stemming from the company's potential for expansion and growth. By employing a Free-cash-flow model to determine the intrinsic value of the company, the PVGO is calculated accordingly, contributing to the overall value determination.

Incorporating the PVGO into the valuation model, the value of the company can be expressed as the sum of the present value of cash flows from assets in place and the present value of cash flows from growth opportunities.

Mathematically, it can be represented as:

$$PV\ FCF = PV\ of\ Cash\ flows\ for\ assets\ in\ place + PV\ of\ Cash\ flows\ from\ growth\ opportunities$$

Expanding upon this formulation in order to assume that the PVGO are the expected cash flows as perpetuity of the future opportunities for the company, we can further express it as:

$$PV\ FCF = \sum \frac{CF\ Assets\ in\ Place}{(1 + WACC)^t} + \frac{CF\ from\ growth\ opportunities}{WACC\ of\ future\ projects}$$

A noteworthy aspect of the model is the assumption that expected cash flows from investors take the form of a perpetuity, aligning with the going concern assumption. The going concern assumption assumes that the company, in this case JMT, will continue its operations indefinitely without the need for liquidation or ceasing activities in the near future. This assumption implies that the company can effectively utilize its assets, meet its obligations, and conduct its planned business operations.

Before exploring potential solutions for inferring the yield and cash flows, it is crucial to consider the approach for determining the final required rate of return by investors. Utilizing a weighted average approach based on cash flows, we can calculate a "final" yield that remains constant over time.

The proposed methodology to achieve an accurate forecast of a firm's capital structure involves integrating both the firm's existing capital structure and the implied capital structure derived from future growth opportunities into the model. This combined approach aims to reflect a more realistic financial scenario for the company.

To derive this value, we used the proportion of the value of assets in place relative to the price to determine the weight of the current Debt-to-Capital ratio's influence on the future forecast. Subsequently, we added the proportion of the present value of growth opportunities (PVGO) from the price, utilizing this value as a measure of the implied Debt-to-Capital ratio's impact on future financing forecasts.

This proposed model, in theory, offers a more comprehensive and realistic estimation of the firm's capital structure. It promises to provide a dynamic framework that reflects shifts in the financial statements and alterations in the weighted average cost of capital (WACC) model inputs. Through this, we aspire to deliver an enhanced perspective on the firm's financial dynamics and facilitate informed decision-making.

Its mathematical expression would be:

$$\frac{D}{V} = \frac{PV \ of \ CF \ for \ assets \ in \ place \ per \ share}{Price} * \frac{D_{current}}{V_{current}} + \frac{PVGO \ per \ share}{Price} * \frac{D_{future\_projects}}{V_{future\_projects}}$$

The model makes a large assumption, which states that the required project return by estimating the minimum required rate of return for all future projects with a CAPM approach. This way we can gauge the expected cash flows from the PVGO, assumed as a perpetuity paid from future ventures, and estimate the capital structure expected by investors.

We can determine the required yield by investors for the cash flows of the growth options. By utilizing a WACC model to establish the minimum required rate of return by investors in JMT, employing backward engineering, we can deduce the capital structure required by investors, as indicated by the yield of the PVGO. This is done by setting a separate WACC for future projects that is used to discount the perpetuity. That same discount rate has the same estimation for cost of debt, however the CAPM is the key to estimating the output.

Setting the CAPM as, $CAPM = RFR + \beta * PRP$ we would need to calculate the future project beta. Same for the Project risk premium, we would need to calculate an assumed project risk premium that would serve as a risk premium required from investors for all future projects.

Risk-free rate estimation | The risk-free rate for simplicity purposes is taken as the 10 YTM of the Bund on the date of the valuation. The value is 3,40%.

Beta | The beta is first unlevered using the current capital structure in order to arrive at the current asset beta of 0,78. In order to solve the capital structure problem we would need to re-lever the beta at the future expected financing structure for projects.

This would give us an unknown variable set to be calculated, which is mathematically expressed as the following:

$$\beta_{project} = \beta_{asset} * (1 + \frac{D_{projects}}{E_{projects}} * (1 - tax \ rate))$$

Tax rate | The tax rate used for the calculation is the forecasted cash tax rate using the deferred tax liabilities and assets approached, yielding a c.27% tax rate. This is shown in the appendix.

Project risk premium (PRP) | Consistent with financial theory, the approach for calculating a generalized project risk premium was by taking the Equity risk premium and adding the country's default risk spread.

Since we are assuming a separate WACC for future projects, its structure of Debt and Equity into the weights would be influenced by the beta releveled D / E ratio as the following:

$$\frac{D_{projects}}{V_{projects}} = \frac{\frac{D_{projects}}{E_{projects}}}{1 + \frac{D_{projects}}{E_{projects}}}$$

The Equity-to-Capital would be calculated as 1 - D / V ratio for the WACC inputs.

This is gives us a totally separate estimate for future projects WACC, and their financing:

$$WACC = 1 - \frac{\frac{D_{projects}}{E_{projects}}}{1 + \frac{D_{projects}}{E_{projects}}} * \left(rf + \left(\beta_{asset} * \left(1 + \frac{D_{projects}}{E_{projects}} * (1 - tax\,rate) \right) \right) * PRP \right) + \frac{\frac{D_{projects}}{E_{projects}}}{1 + \frac{D_{projects}}{E_{projects}}} * kd$$

To arrive at our output for the capital structure we set the PVGO value to be equal to the expected cash flows as a perpetuity discounted at the WACC in the equation above:

$$PVGO = \frac{CF_{prepetuity}\,from\,future\,projects}{WACC_{projects}}$$

Since we already have the implied value for PVGO from the market and our intrinsic value model without growth, we can solve the equation for the D/E ratio and the CF from future projects. For the case of Jeronimo Martins this would yield a **D/E ratio of c.27%** and a **Debt-to-Capital ratio of 21,25%**, giving us the implied capital structure for the company.

The result would allow us to change the model and assumptions in the financial statements as well as the inputs for the Group as a whole, arriving at a more accurate intrinsic value as well as fully closing the loop on assumptions.

Table 8: Alternative D/E Calculation

Project WACC calculation	
Risk free rate	1,70%
Project risk premium	6,79%
Unlevered Beta	0,78
Levered beta at D/E projects	0,93
CAPM	8,04%
Cost of debt	4,90%
D/E projects	26,98%
D/V	21,25%
E/V	78,75%
WACC Projects	7,09%
CF Perpetuity from projects	144,37
PVGO	2035,85

Source: Team estimates

However, it is important to acknowledge that this proposition relies on assumptions that may deviate from realistic concepts. These assumptions include:

- Investor expectations are in the form of cash flows form of perpetuity.
- The risk associated with projects in narrowed to systematic risk through the CAPM model.
- All investors utilize similar models (cash flow) to arrive at the intrinsic value of the future project opportunities.

Alternative approaches - Yuri Tserlukevich, 2005

In the publication, "Can Real Options Explain Financing Behavior?", Yuri Tserlukevich (2008) delves into the implications of real options and the financial decisions made by firms. This study offers a model that blends real options theory into a framework that includes the decision-making process behind firms' choices of capital structure and their financial strategies.

The model developed by Tserlukevich is rooted in a stochastic process approach, which represents a departure from traditional, foundational financial theory. His investigation argues that the insights provided by real options theory can help illuminate the financial behaviours of firms, particularly in circumstances laden with high degrees of uncertainty and where valuable growth opportunities are at stake.

The proposed model integrates real options theory with established theories of capital structure. It suggests that firms, while determining their capital structure and financial strategies, take into account the value of real options. This model incorporates critical factors like the valuation of growth opportunities, the timing and flexibility of investments, and the risks associated with these factors.

One of the essential insights from this model is that firms, when faced with valuable growth options, are inclined to lean towards higher optimal leverage levels. This is because they can harness the power of debt financing to tap into the value of these options. In addition, the model postulates that firms with greater flexibility and timing options might favour short-term debt or credit lines to finance their investments. This strategy enables them to modify their financial structure as and when investment opportunities evolve.

Tserlukevich's integration of real options theory into the analysis of financing behaviour endows this study with a robust analytical framework. This allows for a comprehensive understanding of how firms navigate their financial decisions in an environment characterized by volatility and uncertainty. His paper emphasizes the importance of evaluating the value and flexibility of growth options while determining the optimal capital structure and financial strategies for firms.

The value of the model within the context of this paper lies in its ability to propose an alternative method for forecasting capital structure. This, in turn, has implications for the potential yield from growth options. In a scenario revolving around a single growth option, the model explores how firms embed real options theory into their financing decisions. The proposed formulation of the optimal investment threshold X_* is the following:

$$X_* = \frac{P(r(1-\tau_i)-\mu)}{(1-\tau_i)\alpha} K_0^{1-\alpha} \left[1 - \frac{\alpha b}{b-1} \right]^{\frac{\alpha-1}{\alpha}}$$

Source: Tserlukevich, Y. (2008), p. 11

In settings marked by a single growth option, which aligns with our assumptions regarding a single Present Value of Growth Opportunities (PVGO), the mathematical principles underpinning the model can be elucidated using option pricing principles and growth option valuation. The model assimilates the concept of present value calculation and the principles of real options theory into a cohesive framework. While no calculations were concluded for the case of Jeronimo Martins, Tserlukevich's model serves as a supplementary proposition in determining an implied yield for growth options and the possibility of reverse engineering in order to gauge expected financing choices for future ventures of the firm.

Adopting Tserlukevich's proposition facilitates the identification of a capital structure that resonates with both market dynamics and managerial perspectives. This serves as a valuable tool for forecasting financial statements within the realm of the Discounted Cash Flow (DCF) model, thereby leading to a more accurate assumption regarding the Weighted Average Cost of Capital (WACC). Consequently, this approach not only extends the reach of financial forecasting but also enhances the precision of capital cost estimation.

Conclusion

Drawing on the insights of renowned finance scholar Stewart C. Myers, who famously admitted the enduring mystery surrounding how firms choose their capital structure, my proposition offers a more straightforward perspective. Instead of solely focusing on the company itself, I propose shifting our attention to the expectations of the shareholders. By integrating various theories on market anomalies, optimal capital structure, and shareholder value maximization, we can gain valuable insights into predicting the capital structure of a company. These benefits would extend to the following situations:

Identifying investor-preferred capital structures for future ventures | From the managerial perspective, financing decisions come down to several factors. The aforementioned factors in this paper are mostly focused for the case of JMT, those being, the pecking order when making financing decisions and the family specific environment that guide them. By using my proposition managers would be able to gauge the expected financing sources the firm should use based on investors. This method mostly goes in line with the shareholder vs. debtholder dilemma. In turn, the managerial bodies will be able to select their financing options more accurately in a way to maximize returns and company value.

Estimating a combined WACC | The cornerstone assumption of the model is that the cost of capital varies between the present and the future expectations for the firm. By computing a Weighted Average Cost of Capital (WACC) that deviates from our primary methodologies, we can potentially generate a value that more precisely characterizes the company's environment. This approach is predominantly driven by the fact that as time evolves, the company's financial strategies and decisions must align with the expectations of both debt and equity holders. The model posits that the derived values for the capital structure inherently incorporate information related to investor expectations for returns on future opportunities, their dual roles as debt and equity holders, and the financing options they anticipate the company will employ for its growth opportunities. This comprehensive perspective ultimately forms a feedback loop, anchoring assumptions about future cash flows and the company's intrinsic value.

Reliable assumptions on forecasting financial statements | When forecasting financial statements, the most common methods employed are: i) using target capital structure stated by the company, ii) using an industry wide index or iii) estimating the optimal capital structure and assuming the company will use that as a target. However, the first and third assumptions predominantly rely on the company's execution efficiency. For industries where capital structure differs largely amongst competitors the assumption of an industry wide index can be highly inaccurate. As stated throughout this paper, the real capital structure differs majorly due to many factors for companies. The model employs a more flexible assumption which states that through it we already see the implied pecking order factor, as well as the financing dilemma amongst the holders of the company's securities. Also, in the case of JMT we can state that it also implies within it the family

perception and characteristics for financing decisions. Once the calculated capital structure is implemented in the assumptions for forecasting the financial statements it allows for all the following real-world discrepancies to be assumed in the model.

Essentially, this approach suggests that a company's financing decisions are driven by the expectations and viewpoints of its shareholders and debtholders regarding the prevailing and future market conditions.

What does this mean for Jeronimo Martins? The calculations using the suggested approach state that the company would increase its debt levels, which is expected considering previous research on family financing decisions mentioned in this paper. It is also expected that debt levels increase since JMT rellies highly on leasing activities for its operations and expansion plans. If this model were to be implemented from the start and assumptions revolved around it, the company would have a slightly different intrinsic value. More accurate, taking into consideration all the real-world assumptions it would hold.

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 ond materials consumed	-15025	-16156	-19720	-21945	-23644	-25184	-26800	-28237	-29515	-30676	-31689
Changes in inventories 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)	9,22	8,73	8,81	9,39	9,54	9,59	9,60	9,64	9,68	9,71	9,74
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	-3 165	-3 393	-3 757	-4 142	-4 532	-4 852	-5 165	-5 470	-5 746	-6 002	-6 240
Fixed asset turnover	3	3	3,4	3,5	3,4	3,4	3,4	3,3	3,3	3,3	3,3
Total asset turnover	2	2	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: Financial Statements 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 expections, mainly affected by inflation
Intangible Asstes	%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	Unit										Note
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
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	2 564	2 770	2 990	3 220	3 461	3 709	3 959	4 211	4 462	L. Liab.(n) = LL(n-1) - Lease amortization(n) + Lease renewal(n). The renewals grom 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		Assumed constant due to lack of information needed

Income Statement Assumptions	Unit	2022YE	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	Note
Revenues											
Poland	€M	17 940	19 845	21 275	22 548	23 945	25 128	26 137	27 067	27 901	See appendix
Portugal	€M	5 657	6 057	6 352	6 622	6 862	7 097	7 337	7 567	7 785	See appendix
Colombia	€M	1768	2344	2824	3287	3755	4213	4639	5004	5286	See appendix
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 od Debt, see Appendix xx
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	#	3 395	3 497	3 587	3 664	3 727	3 775	3 808	3 825	3 825	2022 is having in mind Q3 2022 growth. From 2023 is CAGR 2017-2022.
Total area	thousand SQM	2 374	2 473	2 566	2 651	2 728	2 763	2 787	2 800	2 800	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	17 582	19 429	20 796	22 008	23 341	24 468	25 434	26 329	27 136	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	4 499	4 820	5 071	5 301	5 504	5 702	5 904	6 095	6 273	Remark: SQM per store decreses until 2026 at the -0.39% CAGR 2015-2022, stabilizing after. In line with proximity strategy.
Recheio	€M	1 158	1 237	1 281	1 321	1 358	1 394	1 432	1 472	1 512	-
Colombia											
Ara	€M	1 768	2 344	2 824	3 287	3 755	4 213	4 639	5 004	5 286	Remark: SQM per store decreses until 2026 at the -0.28% CAGR 2015-2022, stabilizing after. In line with proximity strategy.

Appendix 6: SWOT analysis

Strengths
- 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.

Weaknesses
- 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.

Opportunities
- 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.

Threats
- 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 7: Jerónimo Martins CAPEX

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 reburbished	307	320	330	338	346	352	356	359	361	2,1%
% stores refubished	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 future 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 accounts for complete refurbishments, although the company also renovates other existing stores. This makes the cost per revamping appear significantly larger.

Appendix 8: 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 come up with a reasonable WACC. The method used was the first mentioned, where the outputs for WACC per goegraphical 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)| The Capital Asset Pricing Moel (CAPM: $Ke = RFR + \beta * ERP$) was the method chosen to compute Ke. JMT's cost of equity is achieved by summing each country's weighted cost of equity on its EBIT contribution.

	Cash/Value (avg.)	D/E (avg.)	β Unlevered (avg.)
Portugal	13,4%	1,4	0,4
Poland	3,8%	0,26	0,5
Colombia	9,4%	1,1	0,8

Betas | The Betas used to calculate the cost of equity were estimated using the pure-play method (sample of more than 50 Food Retailers that operate in the same geographical areas as JMT). Collecting levered betas for peers and estimating an average was the first approach. From there they were delevered 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.

RFR and MRP | Both rates were derived from the "Survey: Market Risk Premium and Risk-Free rate used for 88 countries in 2022" (2022, Fernandez), and assumed to be the best proxies for current market estimates of future required rates.

Cost of Debt (Kd) | Cost of debt was estimated by looking at the Implied Credit Risk spread of the company and adding it to the RFR to obtain a cost of debt attributable to each geographical location the group operates in.

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 9: 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 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

	Portugal	Colombia	Group
	2%	3%	2%

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	2 490	2 527	2 598	2 769	2 953	3 127	3 320	3 515	3 710
Sales	25 365	28 246	30 451	32 456	34 562	36 438	38 112	39 637	40 972
Avg. Assets	10 833	7 653	8 068	8 624	13 140	14 077	14 946	15 776	16 605
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 10 | FCFF Valuation per business segment

Portugal, €M	2022F	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	TV
Revenues	**5 657**	**6057**	**6352**	**6622**	**6862**	**7097**	**7337**	**7567**	**7785**	
Pingo Doce	4 499	4820	5071	5301	5504	5702	5904	6095	6273	
Recheio	1 158	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	**2 546 €**	**g = 1%**								

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	**16 298 €**	**g = 2%**								

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	**18,25%**	**18,1%**	**17,8%**	**17,6%**	**17,3%**	**17,2%**	**17,0%**	**16,8%**	**16,6%**	**16,6%**
Enterprise value	**1 391 €**	**g = 2.5%**								

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	**-1 838 €**	**g = 2%**								

Appendix 11 | Residual Income Model

	2023F	2024F	2025F	2026F	2027F	2028F	2029F	2030F	TV
NOPAT	711	710	700	693	678	658	619	582	
Capital charge	595	586	563	540	518	494	471	446	
Economic Value Added®	**116**	**124**	**138**	**153**	**161**	**164**	**148**	**135**	**1579**
Equity Value	12 825								
Price target	**24,70**	**g = 2%**							

Appendix 12 | 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.

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.

Portugal				Poland				Colombia			
SARD Peers adjusted Rank	Ticker	Company Name	Country	SARD Peers adjusted Rank	Ticker	Company Name	Country	SARD Peers adjusted 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	Performance 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	Almacenes Exito SA	Colombia

Appendix 13 | Peers Selection for Relative Valuation Purposes

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 Price Multiples (P/E, P/B and P/S) and 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 €25.02 was achieved.

	P/E	P/B	P/S	Average Equity Value	EV/Sales	EV/EBITDA	Average Equity Value
Portugal Peers	9,47	1,28	0,13	415 210 423,17 €	0,36	6,07	981 254 074,79 €
Poland Peers	17,68	3,18	0,77	9 306 675 743,58 €	0,91	10,88	15 217 036 616,87 €
Colombia Peers	20,61	1,23	0,19	98 067 847,33 €	0,38	8,29	77 050 613,34 €
			Price Target	15,60 €		**Price Target**	25,86 €

	P/E	P/B	P/S	Average Equity Value	EV/Sales	EV/EBITDA	Average Equity Value
Portugal Peers	9,47	1,3	0,1	€415,210,423	0,4	6,1	981,254,075
Poland Peers	17,68	3,2	0,8	€9,306,675,744	0,9	10,2	14,686,196,440
Colombia Peers	20,61	1,2	0,2	98,067,847	0,4	8,3	77,050,613
				Price Target	€ 15,60	**Price Target**	€ 25,02

Appendix 14 | Risk Matrix

Market Risk | Energy Costs (MR2)

Energy prices spiked after the war, exacerbated by Europe's dependance 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 Centers, 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 €Bn in 2022 in Portugal, and with €1.46B in 2021 in Poland (yet to be officialized), for a possible misleading advertisement to consumers, and others. If settled, the litigation will affect JMT's price target in about €0.6/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.

Strategic and Operational Risk | Cybersecurity (SOR3)

Ransomware attacks in Big Companies have increased. JMT database controls efficiently discounts, product mix, supplier output and needs. Any attack on JMT can affect the day-to-day operations in the whole supply chain

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 15 | Sensitivity and Monte Carlo

The Monte Carlo simulation was performed using 10,000 trials, with the assumptions used in the following table:

Parameter	Expected Value	Standard Deviation	Minimum	Maximum	Distribution	Comment
Population growth change	0%	0.20%	-	-	Normal	-
Real GDP change	0%	2.10%	-	-	Normal	std according to polish real gdp growth (last 20 years)
Inflation change	0%	0.86%	-	-	Normal	std polish inflation
EBIT margin POL change	0%	0.47%	-	-	Normal	-
EBIT margin PT change	0%	0.38%	-	-	Normal	std of the past ebit margins, except colombia, which is the forecasted
EBIT margin COL cahmge	0%	1.61%	-	-	Normal	-
EUR/ZLO change	0%	6.30%			Normal	5Y monthly average
EUR/COL change	0%	13.60%			Normal	5Y monthly average
Risk-Free Rate	2.15%	0.81%	-	-	Lognormal	std is monthly 5y average
Terminal growth (g) change	0%	-	-0.5%	0.5%	Uniform	-

The following sensitivity analysis further illustrates the polish EBIT margins relevance for the price target, as well as the relevance of the ZLO/EUR exchange rate differences:

EUR/ZLO shifts

€ 24,87	-2%	-1%	0%	1%	2%
-2%	€ 21,5	€ 22,9	€ 24,5	€ 26,2	€ 28,1
-1%	€ 21,6	€ 23,1	€ 24,7	€ 26,4	€ 28,2
0%	€ 21,8	€ 23,3	€ 24,9	€ 26,6	€ 28,4
1%	€ 22,0	€ 23,5	€ 25,1	€ 26,8	€ 28,6
2%	€ 22,2	€ 23,7	€ 25,3	€ 27,0	€ 28,9

(EUR/COL Shifts)

Poland's EBIT margin shifts

€ 24,87	-2,25%	-1,5%	-0,75%	0%	0,5%
-1,5%	€ 15,42	€ 18,16	€ 20,91	€ 23,68	€ 25,53
-0,75%	€ 16,00	€ 18,74	€ 21,50	€ 24,27	€ 26,13
0%	€ 16,57	€ 19,32	€ 22,09	€ 24,87	€ 26,72
0,75%	€ 17,14	€ 19,90	€ 22,67	€ 25,45	€ 27,31
1,5%	€ 17,71	€ 20,48	€ 23,26	€ 26,04	€ 27,90

(Portugal's EBIT Shifts)

References

Ahern, D. (2023, March 21). Strong Fall In Retail Sales Bodes Ill For Polish Economy [Online]. *Checkout*. Available from: https://www.checkout.ie/retail/strong-fall-in-retail-sales-bodes-ill-for-polish-economy-200637 [Accessed: 12/03/2023]

BerkJonathan, B., & Van BinsbergenJules, H. (2017). How Do Investors Compute the Discount Rate? They Use the CAPM (Corrected June 2017) [Online]. Financial Analysts Journal, 73(2), 25–32. Available from: https://doi.org/10.2469/faj.v73.n2.6 [Accessed: 18/03/2023]

Damodaran, A. (1999). Estimating Risk Parameters. NYU Leonard N. Stern School Finance Department Working Paper, Series 99-019.

Damodaran, A. (2022). Country Default Spreads and Risk Premiums [Online]. Available from: https://pages.stern.nyu.edu/~adamodar/New_Home_Page/datafile/ctryprem.html [Accessed: 06/11/2022].

Damodaran, A. (2022). Optimal Capital Structure [Online]. Available from:

DRC Discount Retail Consulting GmbH. (2023, March 26). Poland: Biedronka's pricing policy prevents food inflation in Poland by 3 percentage points [Online]. *Discount-retail-consulting*. Available from: https://www.discountretailconsulting.com/post/poland-biedronka-s-pricing-policy-prevents-food-inflation-in-poland-by-3-percentage-points [Accessed: 20//04/2023]

EU raises growth forecasts; and other top inflation and economy stories. (2023, February 28) [Online]. World Economic Forum. Available from: https://www.weforum.org/agenda/2023/02/eu-economic-growth-forecasts-turkey-earthquake-economy-stories-17-february/ [Accessed: 12/03/2023]

European Central Bank. (2022, April 15). The ECB Survey of Professional Forecasters - Second quarter of 2022 [Online]. Available from: https://www.ecb.europa.eu/stats/ecb_surveys/survey_of_professional_forecasters/html/ecb.spf2022q2~1182c59cb8.en.html [Accessed: 08/10/2023]

Fernandez, P. (2007). Equity Premium: Historical, Expected, Required and Implied. *IESE Business School*.

Fernandez, P. (2010). The Equity Premium in 150 Textbooks. Social Science Research Network.

Fernandez, P. (2019, May 28). Expected and Required Returns: Very Different Concepts [Online]. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2591319 [Accessed: 23/04/2023]

Gleißner, W., & Ernst, D. (2019). Company Valuation as Result of Risk Analysis: Replication Approach as an Alternative to the CAPM [Online]. *Social Science Research Network*. Available from: https://doi.org/10.2139/ssrn.3458862 [Accessed: 03/04/2023]

González, M., Guzmán, A., Pombo, C., & Trujillo, M. (2013). Family firms and debt: Risk aversion versus risk of losing control. Journal of Business Research, 66(11), 2308–2320. https://doi.org/10.1016/j.jbusres.2012.03.014 [Accessed: 15/05/2023]

Goyal, A. (2006, January 11). A Comprehensive Look at the Empirical Performance of Equity Premium Prediction [Online]. Available from: https://papers.ssrn.com/sol3/papers.cfm?abstract_id=517667 [Accessed: 23/04/2023]

https://pages.stern.nyu.edu/~adamodar/pc/capstru.xls [Accessed: 07/05/2023]

IMF: World economic outlook is starting to recover. (2023, February 6) [Online]. World Economic Forum. Available from: https://www.weforum.org/agenda/2023/02/imf-global-growth-forecast-inflation-cools-inflation/ [Accessed: 10/03/2023]

Jensen, M. C., & Meckling, W. H. (1976). Theory of the firm: Managerial behavior, agency costs and ownership structure. Journal of Financial Economics, 3(4), 305–360. https://doi.org/10.1016/0304-405x(76)90026-x [Accessed: 29/05/2023]

Jerónimo Martins. (2023). Company Profile | Who We Are | Jerónimo Martins [Online]. Available from: https://www.jeronimomartins.com/en/about-us/who-we-are/company-profile/ [Accessed: 18/10/2022]

JMT (2015). Annual Report. Lisbon: Jerónimo Martins.

JMT (2016). Annual Report. Lisbon: Jerónimo Martins.

JMT (2017). Annual Report. Lisbon: Jerónimo Martins.

JMT (2018). Annual Report. Lisbon: Jerónimo Martins.

JMT (2019). Annual Report. Lisbon: Jerónimo Martins.

JMT (2020). Annual Report. Lisbon: Jerónimo Martins.

JMT (2021). Annual Report. Lisbon: Jerónimo Martins.

JMT (2021). Corporate Responsability Report. Lisbon: Jerónimo Martins.

JMT (2022). 1H22 Interim Report. Lisbon: Jerónimo Martins.

JMT (2022). 1H22 Results Report. Lisbon: Jerónimo Martins.

JMT (2022). 1Q22 Results Report. Lisbon: Jerónimo Martins.

JMT (2022). 9M22 Results Report. Lisbon: Jerónimo Martins.

JMT (2022). Annual Report. Lisbon: Jerónimo Martins.

Koller, T., Goedhart, M. & Wessels, D. (2010), Valuation Measuring and Managing the Value of Companies, 5 th Edition. New Jersey: John Wiley & Sons, Inc.

Latrous, I., & Trabelsi, S. (2012). Do family firms use more or less debt? International Journal of Corporate Governance, 3(2/3/4), 182. https://doi.org/10.1504/ijcg.2012.051861 [Accessed: 11/06/2023]

Miller, M. H. (1958). The Cost of Capital, Corporation Finance and the Theory of Investment. The American Economic Review, 48(3), 261–297. http://blog.bearing-consulting.com/wp-content/uploads/2012/09/The.Cost_.of_.Capital.Corporation.Finance.and_.the_.Theory.of_.Investment.pdf [Accessed: 25/05/2023]

Myers, S. C. (1977). Determinants of corporate borrowing. Journal of Financial Economics, 5(2), 147–175. https://doi.org/10.1016/0304-405x(77)90015-0 [Accessed: 11/06/2023]

Myers, S. C. (1984). The Capital Structure Puzzle. Journal of Finance, 39(3), 574–592. https://doi.org/10.1111/j.1540-6261.1984.tb03646.x [Accessed: 29/05/2023]

OECD (2022). Inflation (CPI) [Online]. Available from: https://data.oecd.org/price/inflation-cpi.htm [Accessed: 05/03/2023].

OECDiLibrary (2023). Interim Report March 2023: A Fragile Recovery [Online]. OECD Economic Outlook. Available from: https://www.oecd-ilibrary.org/sites/d14d49eb-en/index.html?itemId=/content/publication/d14d49eb-en [Accessed: 12/04/2023]

Pinto, J. E., Henry, E., Robinson, T. R. & Stowe, J. D. (2010), Equity Asset Valuation, 2 nd Edition. New Jersey: John Wiley & Sons, Inc.

Refinitiv (2021) Peers Multiples [Online]. Available from: https://www.refinitiv.com/ [Accessed: 31/12/2022].

State of grocery Europe 2023: Living with and responding to uncertainty. (2023b) [Online]. In *McKinsey & Company*. Available from: https://www.mckinsey.com/industries/retail/our-insights/state-of-grocery-europe-2023-living-with-and-responding-to-uncertainty [Accessed: 29/04/2023]

Strzelecki, M. (2023, May 6). Poland may extend zero VAT on food into 2024 if inflation persists [Online]. *Reuters*. Available from: https://www.reuters.com/world/europe/poland-may-extend-zero-vat-food-into-2024-if-inflation-persists-2023-05-06/#:~:text=Poland%20may%20extend%20zero%20VAT%20on%20food%20into%202024%20if%20inflation%20persists,-Reuters&text=WARSAW%2C%20May%206%20(Reuters),Mateusz%20Morawiecki%20said%20on%20Saturday [Accessed: 21/05/2023]

Sustainalytics (2022). Jerónimo Martins SGPS SA Company ESG Risk Ratings [Online]. Available from: https://www.sustainalytics.com/ [Accessed: 19/11/2023].

Szmigiera, M. (2022). Forecast of inflation rate globally 2022-2024, by country [Online]. Available from: https://www.statista.com/statistics/1249136/annual-inflation-rate-forecast-by-country/ [Accessed: 06/01/2023].

Thijssen, J. (2023). Real Options - Strategy Meets Finance [Real Options, ISEG Class Notes].

Titman, S., & Wessels, R. E. (1988). The Determinants of Capital Structure Choice. Journal of Finance, 43(1), 1–19. https://doi.org/10.1111/j.1540-6261.1988.tb02585.x [Accessed: 17/05/2023]

Tserlukevich, Y. (2008). Can real options explain financing behavior? Journal of Financial Economics, 89(2), 232–252. https://doi.org/10.1016/j.jfineco.2007.11.003 [Accessed: 29/05/2023]

World Economic Outlook, October 2022: Countering the Cost-of-Living Crisis [Online]. IMF. Available from: https://www.imf.org/en/Publications/WEO/Issues/2022/10/11/world-economic-outlook-october-2022 [Accessed: 11/11/2022]

Wylenzek, N. (2022, December 8). Europe economic outlook for 2023 [Online]. Wellington. Available from: https://www.wellington.com/en/insights/europe-economic-outlook-2023 [Accessed: 14/01/2023]

Disclosures and Disclaimer

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%