A Wo	rk Project,	presented a	s part of th	ne require	ments for	the Award	of a Mas	ter's deg	ree in
		Finance from	n the Nov	a School o	of Busines	s and Ecor	nomics.		

Private Equity Challenge – Gelpeixe

André Matos – 38956

David Silva – 48900

Pedro Penas – 39321

Tomás Vale – 48207

Work project carried out under the supervision of:

Diogo Chalbert Santos

Abstract

Four students collaborated to create this work project, which takes the form of an Investment

Committee Paper and proposes the leveraged buyout of Gelpeixe, a frozen food firm based in

Portugal. An effective value creation plan supported by the best capital structure was devised,

following a thorough examination of the business and the industry, returning an IRR of 25.5%

and a Money Multiple of 3.0x over the course of five years. Additionally, individual

contributions were included, delving into the topics of deal financing in private equity, frozen

food in private equity, mezzanine financing and the impact of interest rates in private equity.

Keywords: Private equity, Leveraged buyout, Gelpeixe, Acquisition

This work used infrastructure and resources funded by Fundação para a Ciência e a

Tecnologia (UID/ECO/00124/2013, UID/ECO/00124/2019 and Social Sciences DataLab,

Project 22209), POR Lisboa (LISBOA-01-0145-FEDER-007722 and Social Sciences

DataLab, Project 22209) and POR Norte (Social Sciences DataLab, Project 22209).

Group Contribution – Investment Committee Paper Summary

Company profile

Located in Loures, Lisbon, Gelpeixe is a Portuguese leading manufacturer of frozen and deep-frozen fish products, established in 1977. In addition to numerous distinctions as a SME Leader and the SME Excellence Award by IAPMEI (first place in 2009 and 2012, and third place in 2013), the company's leadership position in the market, its proven management, and several competent professional teams all contributed to the establishment of Gelpeixe's reputation, which is now backed by ongoing expansion and high standards. Over 3,000 consumers are already being served by the firm, which currently employs over 150 employees.

The firm now has a daily production capacity of 40 tons thanks to the recently finished expansion of its primary facility in Loures. The business provides a large selection of more than 400 goods and exports 20% or more of its sales to more than 20 nations, on four continents. High-growth European markets like Spain, Poland, and Belgium are the key sales destinations; other important countries to consider include Macau and Angola.

Business model and value chain

The majority of Gelpeixe's fish and seafood purchases come from foreign fishing firms with strong ties to South Africa, Scotland, India, and Alaska. State-owned Docapesca is primarily in charge of providing national harboring supplies. Fish, shellfish, and mollusks from high-seas fisheries are processed and frozen, which account for the majority of the business's sales. After being sliced into pieces, the raw fish and seafood are placed in drained net-weight bags and deep frozen. Gelpeixe keeps its finished goods in storage before selling them to four different types of customers: large wholesalers, who make up the majority of Gelpeixe's sales; large distributors; HORECA (hotels, restaurants, and catering); fishmongers; small shops; and exports for every kind of international customer.

As previously mentioned, the factory now has a maximum production capacity of 40 tons per day, a total area of over 10,000 m², a capacity for cold storage of 29,000 m³, two production units, and a total of eleven lines after the most recent of five expansions during the factory's existence was put into place. In order to function more efficiently, Gelpeixe also conducts operations in the areas of logistics, distribution, and research and development, all of which are aimed at meeting customer needs and developing new products.

As mentioned above, once implemented the most recent expansion of Loures' factory, the fifth expansion during its existence. It now has a maximum production capacity of 40 tons per day, a total area of over 10,000 m², a cold storage capacity of 29,000m³, two production units and a total of eleven lines. For efficiency purposes Gelpeixe operates other activities beyond production, including, logistics, distribution, and research, both focused on responding to client's needs and developing new products. Mindlab is the laboratory at the center of Gelpeixe's research.

Product portfolio

Selling a wide range of products, Gelpeixe produces a substantial number of products sold under large wholesalers' brands, having strong supplier relationships with all of the largest wholesalers in Portugal (e.g., Continente, Pingo Doce, Auchan, Lidl). Gelpeixe owns two brands (GELPEIXE and DELIDU) further segmented into five distinct sub-brands, which account for around 20% of sales. GELPEIXE focus on frozen fish, GELPEIXE Chef precooked fish meals, GELPEIXE Gourmet is directed to seafood, GELPEIXE Professional is directed to HORECA clients selling products in bulk, DELIDU Chef is a sub-brand recently created, and offers a broad selection of non-fish products and pre-cooked meals.

Management team

The effective and knowledgeable management team of Gelpeixe is one of its most important assets. Since 1977, the company has been owned and operated by the same family. The

company's numerous successes over the years, including its ongoing internationalization, diversification of its product offering, and development of its own brands, have been made possible by the management team's strong, knowledgeable, and capable leadership.

The key members of the team are Manuel Tarré as co-founder, President, CEO, and President of the Portuguese Frozen Fish Industrial Association since 1994, which demonstrates his experience, knowledge, and significance in this industry; Lídia Tarré as Vice-Chairman, CFO & Marketing Director, daughter of Manuel Tarré, Gelpeixe's third generation, while accumulating the positions of Board member of the Family Business Association, and Portuguese Chamber of Commerce, and Industry. Nuno Rodrigues as Vice-Chairman, Commercial Director & Procurement Director, has been with the company for over 30 years, has experience in different sectors, and is responsible for the company's supply and sales strategy as well as conducting the international expansion planning.

Financial performance

Gelpeixe's financial performance has been steady in recent years both top and bottom lines. The constant performance was affected by 2020's negative covid-19 pandemic shock. Regardless of that, the company was able to increase sales and profit margins in 2021. In terms of revenues, the company has experienced steady growth, with a c.1.7% CAGR, it being relatively higher considering only pre-covid years, at c.3.3% CAGR.

Stable absolute COGS in the last few years have contributed to gross margins between 17% and 20%. The decrease in external supplies and services costs since 2018 is mainly explained by a reduction in energy costs, after Gelpeixe underwent the installation of a large solar plant, contributing to an EBITDA margin increase from 3.6% in 2019 to 6.4% in 2021.

In addition to expanding its asset base, Gelpeixe's €5 million investment in manufacturing development had a substantial influence on its investing cash flow from 2017 to 2019. Regarding free cash flow, it's important to take into account the consequences of the COVID-

19 pandemic in 2020 and 2021, which reflected as lower inventory in 2020, freeing up more cash, and a subsequent net working capital investment in the following year.

Gelpeixe has generated an average cash flow from operating activities of c.€2.3m while keeping low net debt, with exception for the contracted loans which supported its capital investment.

Market Overview

Frozen Food

Changes in consumer preferences and growing disposable income across the globe are setting the pace for the frozen food market expansion and are foreseen to keep doing so in the next decade.

The worldwide frozen foods market size is expected to grow annually by 5.9% during the 2021-

2027 period. The upward expected trend of this market is supported by several distinct factors, mainly relative to the change in consumer habits. First, the rapidly growing consumer awareness of online retailing coupled with the digitization of the retail industry is fueling the market growth over the forecast period. Secondly, increasing popularity of online grocery shopping among the working population among with an increase in disposable income, in the middle class and in the preference for frozen products all act as catalyst factors for the frozen food market growth. There are other factors of minor importance such as (1) longer shelf-life products, (2) less time for cooking among the working population and (3) increased demand for convenience food.

Narrowing the view into the Portuguese food market, it must be highlighted that in 2021 Frozen foods were the most chosen category by Portuguese consumers, largely driven by the pandemic and the demand for products with a larger useful life span. This uprising demand during the pandemic lead to a historical growth of 17.6% of the Portuguese frozen food segment, compared to the average of 8.1% during the last decade (2011-2021). Market trends in Portugal are in line with global market shifting. Notably, rising innovative solutions being introduced in the market, with the launch of new dishes and new snack varieties. Another major food trend in the national

economy are products of natural origin, designed for consumers reducing meat consumption both for health and sustainability reasons. In Portugal alone, 9% of adults are already veggies. Most of the latest brands that are developing or investing in this market have opted for frozen products as the main sales channel.

Macroeconomic Growth Drivers

The European Union will fund Portugal with €393 million until the end of 2027 to promote sustainable fisheries, following previous similar successful initiatives. Besides the shift in consumer habits and enterprises, a partial drive of the frozen food market is lead by national and international funding packages. Namely for the seafood frozen segment, the Ocean 2030 (Mar 2030) program must be highlighted. The Ocean 2030 outline is currently in the last negotiation phase to fund c.€393m until the end of 2027. Portugal is expected to fund an additional amount of c.€148m from national funds, to provide in total c.€541m to the Portuguese economy. Companies that operate in the sector of commercialization and transformation of fishing and aquaculture products, according to the pre-approved Ocean 2030 fund, will benefit from €132m in funding (c.24% of the total funding approved). The remaining c.€409m will be allocated primarily towards the promotion of sustainable fishing and improving security and work conditions of fishermen. It is expected that companies operating in the fishing and aquaculture divisions will benefit from these external funds to scale their operations and drive-up revenues. The Ocean 2030 has already had a previous edition named Ocean 2020. From the beginning of Ocean 2020 until the end of Q3 2022, the fishing and aquaculture sector have benefited from 7.208 approved funded projects. This represents a total deployment of c.€736m of public (€509m) and private (€227m) capital toward the industry. From 2009 to 2015, preparation of fishery and aquaculture products grew c.11%. Since the implementation of the Ocean 2020 Program, the sector grew c.53%, indicating good prospects for the Ocean 2030 funding plan.

Competitive Dynamics within the Portuguese Landscape

The preparation of fishery and aquaculture products market is highly consolidated with c.71% of sales deriving from players that operate in the industry for more than 20 years. Currently there are sixty-five companies operating in the national market and their sales total an amount of c.€485m. The industry has low barriers to entry but newcomers to this market rarely succeed. Only 29% of the companies have been operating in this market for more than 20 years. Even though, these companies represent more than two-thirds of the total revenues. Most companies are spread across the west coast of Portugal, being the prime zones the Lisbon and the Northwest coast. This dispersion is predictable since companies install their headquarters close to their suppliers due to operating and logistics constraints It is important to highlight that while only c. 28% of companies are on the Northwest coast, the region represents c. 40% of national sales. An explanation for this phenomenon is that most distributors are settled in this specific region.

As stated previously, the market is fairly concentrated on a few players. Around 20% of the companies in this industry generate c.75% of the overall revenues. There is a minimal risk associated with new competitors joining the market and gaining considerable market share. Around 23% of the companies that operate in the industry have entered the market in the last 5

Despite the Portuguese market being mostly consolidated in three big players, there is still a significant range of competition from smaller uprising players. According to its market size and business characteristics, the following companies were identified as Gelpeixe's peer group: (1) *Pescanova*, (2) *Frijobel*, (3) *Coelhos & Dias* and (4) *Gialmar*. Given the importance of other competitors, the following companies were identified as its extended competitors: (1) *Luís Silvério & Filhos*, (2) *Mar cabo*, (3) *Biofrescos* and (4) *Beiragel*.

years, but these companies only represent c. 3% of total revenues.

Gelpeixe has an estimated 8% to 12% of the market share and is jointly with *Pescanova* and *Frijobel*, one of the big players in the industry. The largest players in the industry seem to be

overperforming, being able to provide higher returns on equity and assets; this comes as a consequence of past capital expansions and the ability to scale production.

Investment Thesis

As previously stated, both the frozen foods and frozen seafood market is going through a dramatic revitalization growing at more than a 5% annual rate through 2027. In Portugal, the latter is undergoing a profound expansion with double digits growth. One of the leaders in the frozen food sector – the highest-growing sector in Portugal – is *Gelpeixe*.

Gelpeixe counts experienced management with proven leadership and substantial industry knowledge. The latter bequeaths Gelpeixe a 40-year legacy and pioneer position which enables stable and strong customer relations while leaving Gelpeixe well positioned to win public funds. Moreover, Gelpeixe has one of the largest diversified frozen food platforms and an unmatched product portfolio. The extensive and diversified product portfolio is in accordance with ISO 9001 and ISO 22000 and has the IFS Food Standard with the highest possible classification.

Gelpeixe also has an extensive track record of creating value from the sector, including four decades of steady income while driving significant growth. The company possesses a high and reliable cash generation granting potential production capacity increase to meet market demand

Value creation levers

Gelpeixe's historical performance and success, combined with the frozen seafood industry growth in Portugal, suggests the company should thrive in years to come. Our investment thesis is based on three pillars: Accelerating market growth, Buy-Build, and Internationalization.

Firstly, our cornerstone pillar, leveraging the accelerating market growth, will enable investors to profit from the frozen food's market tailwind growth. This market at a global scale should create new demand, boosted by recent market trends at a macro level. Moreover, a combination of strengthening existing customer relationships and establishing new ones as the company enters new markets will help leverage positive global trends.

In fact, the company should reinforce the strengthening of strategic existing customers. One should be able to accomplish the latter by renegotiating existing customer contacts (ie. Continente, Pingo Doce, and Auchan) for longer terms settlements that contribute to potential margin improvements and predictable future cash inflows. Also, in line with the company's current strategy, *Gelpeixe* ought to continue celebrating new partnerships with large international distributors and wholesalers. Partnering with international distributors allows access to new geographies, benefitting from the rapid international market growth (relative to the Portuguese market). One should expect double digits growth (10.9% annual growth) expected in international revenues from 2023 to 2025 resulting from increased sales in the largest European markets (Spain, France, Germany, United Kingdom, and entry into the Italian market) and execution of the internationalization strategy.

Secondly, we considered a Buy & Build strategy using *Gelpeixe's* well-positioned platform. The latter would allow *Gelpeixe* to establish a large platform within the frozen food segment in the Iberian region and internationally, well suited to reinforce the company's leadership.

Although we examined a plethora of potential add-on transactions, only one company seemed to have the best strategic and financial fit within *Gelpeixe's* current operations. Through comprehensive screening and careful target selection, using current infrastructure and geographical footprint as decisive factors, *Gelpeixe* will pursue its first major acquisition: Sorymar. This firm has above-par margins relative to the Iberian market and revenues close to €10m. In addition, Sorymar is the largest and most modern freezer in the Basque Country and one of the most important in Spain while exporting more than 50% of its production to an excess of 20 countries. Hence, this add-on would allow *Gelpeixe* to boost revenues and *Gelpeixe's* margins, as bundling and leveraging customer relationships can create significant synergies. It would also complement the internationalization strategy by entering new geographic markets, namely in Africa and Eastern Europe, while reinforcing *Gelpeixe's* presence in Spain, and

providing an alternative to "Mercado da Saudade". Lastly, it would allow Gelpeixe to leverage a large Spanish production plant into country-wide distribution and leadership of the Basque region while complementing *Gelpeixe's* product portfolio.

Finally, our third and final strategy consists of internationalizing the company's operations. Increasing international demand for *Gelpeixe's* products, boosted by the buy and build strategy, to rapidly leverage existing customer relationships

A targeted approach to current and new markets should accelerate *Gelpeixe's* international footprint and pursue the current management's internationalization goals. For that we analyzed the current macroeconomic environment in the frozen food market in each continent, thus concluding that Europe is the most attractive market, mainly due to a demand surge given population growth, rapid urbanization, and rise in consumer awareness of the associated benefits. In Europe, we examined the 5 largest markets – Germany, the UK, France, Italy, and Spain – and concluded that *Gelpeixe* should extend its sales network to Italy while consolidating its sales network in the largest geographies with the highest growth, existing established distributor network and with a trade deficit.

To sum up, we have selected three main strategies that are the most appropriate methods to create value for *Gelpeixe* given its current platform. The expected rapid growth of the frozen food segment aligned with a strategic international expansion could elevate *Gelpeixe* position overseas and capture additional revenue opportunities, amplified by Sorymar's acquisition.

Forecasts and Business Plan

Gelpeixe's revenue forecasts rely on the different segments' relevant market analysis and growth drivers. As for the case of the fish and seafood segment, Gelpeixe's overall forecast is relatively conservative in comparison to the European seafood markets (expected to grow at a CAGR of 7.4%), as the majority of the company's sales will happen at a domestic level, where

growth is forecasted to be slower. Regardless, international sales are expected to grow initially at a double-digit rate due to its strategic goal of international expansion, namely in Europe.

The pre-cooked meals segment performance will be mainly driven by international demand. In recent years, Gelpeixe has made investments in new foreign client relationships for this brand, entering the market there right away as the category was introduced. Like the seafood market, this industry should profit from positive European trends.

The leading driver for top-line growth, together with a strong internationalization strategy, is the horizontal acquisition of Sorymar, in 2024. The Spanish business, with significant recent capital growth and high production capacity, enables Gelpeixe to expand its regional markets and have a significant position in the Iberian market. To increase total top-line revenue, it should take advantage of global trends and cooperative customer relationships.

However, the seafood category continues to be the one that propels sales to higher levels, accounting for around 2/3 of organic revenue. Overall, the pre-cooked meals segment should have a higher CAGR as the great majority of sales occur abroad. Besides, the firm had been operating entirely on 1-shift work weeks and 60% of total capacity; an increase to 2-shifts per week to raise the top-line should make use of the remaining capacity. Over time, overall output will increase due to the ability to explore higher production capacity.

Since Sorymar will account for about one-third of the total EBITDA in 2027 due to synergies from the acquisition and its capacity to produce better margins, its operational returns will enable a large rise in EBITDA – it results in several cost synergies, including procurement, administrative restructuring, energy optimization, and overhead extra efficiencies.

The corporation appears to be managing operations effectively, having focused efforts in recent years on optimal energy efficiency and staff management, since operating expenditures continue to be comparable to sales. Because of this, the overall cost structure is mostly unchanged, while the key factor driving top-line growth, foreign demand for Gelpeixe's brand, can result in somewhat improved margins and 200 basis points higher organic EBITDA.

As a result of the aforementioned impacts, EBITDA increases at a 9.9% CAGR from 2021 to 2027, increasing twofold, and reaching 8.1% of sales at the end of the anticipated period.

The evolution of capital expenditures is one of the key variables influencing free cash flow under this projection. Due to recent increases in production and freezing capacity at both Gelpeixe and Sorymar, maintenance costs make up the majority of capital expenditures over time. Depreciation increases steadily in the absence of significant asset purchases.

Even though it is backed by a loan that covers 60% of the purchase price (€5.1m), the €8.4m acquisition of Sorymar also affects the company's free cash flow in 2024. Besides, as the company's top-line and operational requirements increase, net working capital extra expenditures must be funded over time, requiring investment.

All in all, the incorporation of Sorymar and solid revenue growth are the main drivers to higher cash generation, and as such, free cash flow to the firm strengthens.

A management compensation package is created to retain a management team with unrivaled knowledge and power in the sector. Manuel Tarré, the current CEO and President of the Board of Gelpeixe, is currently 70 years old and has co-founded and managed this family business for more than 40 years. He has no plans to continue in these roles following the takeover. However, his extensive knowledge of the business and the sector is extremely valuable, therefore it is decided that he must remain in charge for an additional 18 months during the transition. In this manner, the acting management team should continue to possess the necessary expertise.

The management team's planned compensation package for Gelpeixe is composed of a 10% equity participation in Sweet Equity with a €300k investment, 2.2% equity at admission, and 10% equity vesting at exit; an anti-dilution clause, known as a "ratchet clause", that ensures that the management's ownership position won't be reduced following any stock infusion supported

by the sponsors; and a variable performance bonus with a €500k ceiling determined by an EBITDA-related objective.

Valuation, Capital Structure and Returns

Gelpeixe is valued at an Enterprise Value to EBITDA multiple of 7.4x after taking into account previous comparable transactions and current public comparable firms trading multiples, resulting in a total Enterprise Value of €28.8m.

Considering multiple factors, such as the firm size, the total leverage level, corporate governance, geographic diversification, cash flow stability, and existing asset base, the decided debt structure for this transaction included different types of debt financing. Senior debt, composed of three different tranches, should be financed by banks within the Iberian space, with past expertise in similar transactions and the capability to leverage the deal up to a maximum of 3.5x EBITDA. The interest rates margin on the senior loans should range from 275bps to 350bps. Besides, the deal should also include a subordinated debt facility, composed of a mezzanine loan, financed ideally by a specialized private lender also in the Iberian space. The total use of funds will be €29.4 million, of which €28.8 million is used to buy the business for 7.4x EBITDA and the rest is devoted to financing, arrangement, and due diligence fees. A fixed return instrument worth €11.7 million will accrue interest at a rate of 8.0% annually and, to retain the management team, a sweet equity instrument of 10% over ordinary shares will be deployed. Overall, the total equity contribution will amount to 47.0% of the transaction value. The investment scenario LBO model produces a money multiple of 3.0x and an IRR of 25.5% from a 5-year holding period, ending in 2027. The model forecasts stable covenant enforcement, as Net Debt/EBITDA, interest, and debt service coverage enjoy significant headroom. Sorymar's acquisition is the primary driver of value creation, adding an extra €16.7 million to equity investors through the improved top and bottom-line synergies and increased cash flow

generation. Gelpeixe's organic revenue should also have a substantial influence as a result of

the internationalization strategy and the rapid market expansion since it adds \in 8.3 million to the equity value. Finally, the financial engineering connected to the loans backing the transaction at entry, which contributed to \in 5.0m, is one of the biggest sources of value.

According to a sensitivity analysis, the holding period is crucial in determining the optimal returns. Even if the IRR is not the highest after a holding time of 5 years, the money multiple (3.0x) suggests that it is the best combination, since it still generates a 25.5% IRR.

Another important factor is the exit multiple; if the Sorymar purchase is successful, a greater multiple may be used upon exit, which would greatly increase returns for equity holders. It is obvious how the Sorymar acquisition, one of the key factors in this deal, significantly affects total returns and serves as a potent weapon to increase money multiples.

Exit and due diligence

Four different exit options were studied, considering each one's feasibility and perspective of higher returns for investors, and two of them were highlighted as highly recommended. The first one, selling to a strategic buyer, was deemed one of the most attractive. The rationale for this deal would encompass an acquisition from a larger player looking for an opportunity in the Iberian market, with solid growth prospects, and for the possibility to expand into new markets and experience significant synergies. The existence of a wider range of interested buyers and the fact that strategic sales usually lead to higher exit values favor this exit option, even though it may last longer to close, due to strategic due diligence, than others.

There are multiple European players with a history of M&A that could make sense for this transaction. The two key selected targets are Nomad Foods and Frosta. Both companies are experienced acquirers in the food industry, specializing in frozen food and food retail companies and currently presenting a high degree of strategic fit with Gelpeixe. Inclusively, Nomad Foods has in the past acquired Iglo, one of Gelpeixe's current most important customers, having therefore further strategic interest in this transaction.

The second strategy to be considered is a secondary buyout, this is, selling to a private equity firm looking for small-sized companies in the European retail market. Private equity firms still have opportunities to add value to Gelpeixe by entering new segments and expanding into broader markets, and, for some funds, there is even the possibility of adding to existing portfolios. This type of transaction usually drives a faster sale process, and, commonly, there is plenty of interest for companies with high cash generation, such as Gelpeixe. However, high interest from financial institutions could bring down the valuation and returns for these funds. The top two candidates for a secondary buyout are PAI Partners and Ardian. Both of them are based in France, they have past expertise investing in the Iberian market, and are able to leverage know-how and synergies from current investments in the food and retail industry. Beyond the existing analysis, further due diligence is required to mitigate unforeseen risks and liabilities. In particular, extensive commercial and financial due diligence is required, to analyze further the feasibility and success probability of strategic M&A, the internationalization strategy, and the market's forecasted growth. It is crucial to analyze the precision of existing financial forecasts and valuations, especially in an unstable macroeconomic environment. Besides, it is important to conduct complete due diligence at operational, legal, and ESG levels.

Individual Contribution – David Silva

Increased Private Equity in Promising Frozen Food Sector

Introduction

Frozen food products englobe food that undergoes quick freezing and is maintained frozen until it is utilized. Although freezing food has been a common storage method in cold locations for several years, it is thought that freezing food was initially utilized in commercial food sales. In terms of nutrition, frozen vegetables are usually more trustworthy than fresh ones since freezing minimizes the loss of delicate vitamins and minerals during transit. Freezing food allows the consumer to choose from a wide variety of foods through different seasons. Products in this sector include but are not limited to ready meals (packaged ready-to-eat food, bakery, snacks, and desserts), vegetables, fruits, potatoes, meat, poultry, seafood, and soup. Furthermore, the main frozen food producers are HORECA and fast-food restaurants, which would then provide the final product to consumers (end-users). Globally, the main players in the sector are *Conagra Brands, Unilever, Nestle, Kellogg Company, The Kraft Heinz Company, Vandermoortele, General Mills, Associated British Foods*, and *Cargill*. Currently, the worldwide frozen food market size is \$285.2bn and is expected to grow to \$379.6bn, in 2027, representing an annual CAGR of 5.9%.

Since 2019, a change in consumer behavior and growing disposable incomes have led to a noticeable increase in the sales of frozen products. Although strong sales have made it possible to achieve greater-scale economies, some businesses continue to undergo some hindrances in terms of capacity that might impede future development while pressuring margins. With that being said, the volume of deals in the sector is heavily influenced by the timing of seller's exits. Generally, investor demand outpaces supply in the frozen food industry, which will continue to fuel competitiveness and valuations in years to come.

I. Frozen food market

In the Investment Committee paper, we suggest a transaction in the F&B sector but more specifically, in the frozen food space. Our target selection, Gelpeixe – a leading producer and exporter of frozen and deep-frozen seafood products – flourished from a relative analysis of the highest-performing sectors in Europe (and Portugal). Ultimately, we noticed that changes in consumer preferences and growing disposable income across the globe (Baker, Phillip, et al., 2020) are setting the pace in the next decade, for umpteen industries, notably driven growth in the frozen food market.

One could hypothesize that such, could solely be a transitory and ephemeral trend fueled by the Covid-19 pandemic. The fresh food sector has been dominating the industry for decades which might lead one to think that it will always endure and prevail in terms of consumer preference. However, as mentioned in a report by Deloitte, "Frozen is the David to fresh's Goliath". Indeed, although the frozen food sector represents less than 50% of the fresh food industry, frozen food sales were up 21% in 2021, basically double the growth of fresh food sales in the same period. In addition, according to "The Power of Frozen", an article by the Food Industry Association (FIA) in cooperation with the American Frozen Food Institute (AFFI), the frozen food industry continues to outpace the fresh food market in 2022.

Demand in the frozen food market

During the early phases of the Covid-19 pandemic, changes in purchasing habits for frozen foods intensified, and they have since shown to be persistent (Sen, Shuvro, Neel Antara, and Shusmita Sen, 2020). Such an environment enables the emergence of new opportunities in this industry, namely private equity investment, scale-up consolidation, and continuing expansion. All in all, as previously mentioned in the Investment Committee paper, there are six main growth drivers and trends influencing changes in consumer behavior:

• Increase impulse purchasing and demand for convenience food

- Longer shelf-life products
- Developments in the retail landscape
- Rapidly shifting consumer dietary preference
- Less time for cooking among the working population
- Growing disposable income

In addition, one should underline that this sector has elicited a shrewder effect in Europe, where frozen food private-label producers have expanded their premium product offerings to take a portion of the market share of name-brand producers while allowing the market to provide a cheaper price point. The latter is significantly important due to the increase in budget-conscious customers.

Furthermore, another facet of this industry that is also fueling this frozen food industry is online retailing. The rapidly growing consumer awareness of online retailing coupled with the digitization of the retail industry is fueling market growth over the forecast period. The latter is especially prominent in the middle class given the increasing popularity of online grocery shopping among the working population. Thus, the increase in disposable income, in the middle class, and the preference for frozen products all act as catalyst factors for the frozen food market growth.

Thence, the report will highlight how the interest in the space has been growing which can be substantiated by the gradual increase in deal activity from private equity companies.

II. Private equity deal activity

As one may see in the graph below (*Figure 1*), according to *Mergermarket*, despite a decline in activity in 2020 and 2022 – owing to the pandemic and current geopolitical conflicts – deal flow in the frozen food sector has been strong globally since 2017.

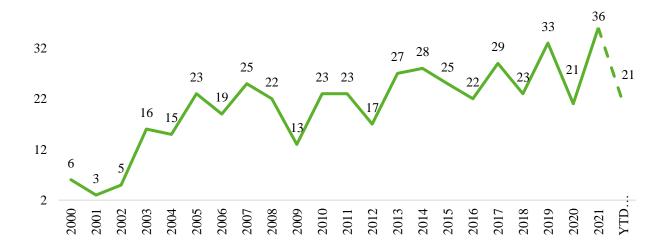


Figure 1- Global Private Equity activity in the frozen foods sector (2000-YTD 2022)

Despite a slowdown in 2022, due to a range of macroeconomic events, according to Lincoln International, there are multiple deals that could close before the end of 2022, which would put the volume on par with pre-pandemic levels. Lincoln International anticipates that in the next two years one should witness significant transaction activity in the space, particularly as certain market participants are seeking to leave or exit their investments and reap the benefits of previous growth investments, such as those made to promote automation and capacity development.

Recently, numerous frozen food companies have seen significant sales growth, leading to greater efficiencies and economies of scale, which sped up the exit timing for certain sellers. However, the additional exponential growth of many companies has pressed capacity capabilities which could restrict further growth in case companies in such a situation do not allocate a portion of capital expenditure for capacity increases. Hence, firms that have leveraged from the profound increase in the market while being able to maintain reasonable levels of excess capacity could be considered in the best position to maximize value in a near-term exit.

Promising opportunity for PE firms

The adversities present themselves as opportunities for private equity firms. Financial sponsors should look at the hindrances in the sector as a golden opportunity to help companies in this industry to reach the needed additional capacity. Private equity firms can complement frozen food businesses's expansion efforts by funding investments in internal assets and infrastructure that may offer value.

Moreover, this segment is particularly attractive for private equity firms because of the value creation potential it represents during the hold period. Frozen food companies commonly seek to expand categorically, and internationally with geographic expansion gaining increasingly more significance in Europe. Thus, private equity firms are progressively looking for targets that have developed leverageable internal capabilities coupled with powerful and experienced management teams. Scaling these targets should help lean operations while lessening the exposure to macroeconomic effects such as growing labor costs. Private equity firms enables, the targets in question, to gain access to privileged financing whilst providing strategic knowledge to allow companies in the frozen food space to growth without being hampered with external factors.

Finally, there is a considerable number of companies in the frozen food market that remain privately held either by the founder or individuals. The latter also represents an opportunity for private equity firms because there is a great potential for consolidation in the frozen food space. The consolidation potential coupled with a growing need for investment in this industry should bring exponential M&A activity which will boost expansion and market presence for firms in the space, in years to come.

Partnering with Strategic Acquirors

One should bear in mind that, like private equity businesses, prominent players in the frozen food space, are also increasingly interested in consolidating the market. Strategic acquirers with

solid platforms to start or continue their inorganic growth are seeking to acquire targets that will not only allow them to cross-sell their products but to enter new geographies or even, extend their product offerings. Thus, partnering with strategic acquirers through stake acquisitions in companies in this sector with strong growth prospects, distribution capabilities, and cross-selling opportunities, should not be discarded.

Moreover, one should bear in mind that strategic players should not be a significant threat in terms of rising acquisitions prices and bringing feistier competitive processes, because, as one may see in the graph below (*Figure 2*), according to *Mergermarket* there have been 721 deals globally, since 2013, in the frozen food sector – excluding private equity firms – and in the last 3 years the deal activity for the type of acquirers aforementioned is below the average of 72 yearly deals.

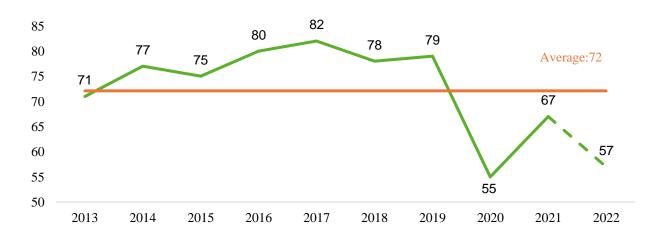


Figure 2 - Global M&A activity in the frozen foods sector since 2013 (excl. Private Equity firms)

In addition to that, strategic acquirers have been leading deal tables since 2000. Leading players have been driving M&A markets globally, however, the latest deal among the top 20 deals (in deal value) is a 25% stake acquisition of *Grupo Nutresa* by an investment firm, as one may see in the table below, according to *Mergermarket*, since 2000. In September of this year, *Grupo Nutresa*, a Colombian-based company in the production and distribution of many products

including frozen foods, sold a 25% stake in exchange for c.£1.8bn, to *International Holding Company P.J.S.C.*, and UAE-based listed company engaged in investing in a range of industries. The latter shows that the growing interest in the frozen food sector translates itself into material private investment. Notwithstanding the fact that one should also distinguish that 55% of the biggest deals in the sector are in the United States of America. The latter shows that over the past 20 years, the major M&A activity in the space was in North America, more specifically, in the United States of America. However, one should expect a change in European markets given the increase in activity and interest in this geography.

Announced Dat	e Target	Country	Acquirer	EBITDA mulitple	Deal Value EUR(m)	Rank
9/21/22	Grupo Nutresa S.A.	Colombia	International Holding Company P.J.S.C.	19.3x	1728.9	15
2/17/21	Dole Food Company, Inc.	USA	Total Produce plc	n.a.	1248.9	20
5/22/20	Pinehill Company Limited	Saudi Arabia	PT Indofood CBP Sukses Makmur TBK	n.a.	2686.1	11
12/11/19	Nestle USA, Inc. (US Ice cream business)	USA	Froneri Limited	n.a.	3604.9	9
7/19/19	Pioneer Food Group Limited	South Africa	PepsiCo, Inc.	14.0x	1656.1	16
1/26/19	Henan Luohe City Shuanghui Industrial Group Co., Ltd.	China	Henan Shuanghui Investment	5.3x	5123.2	5
11/15/18	Schwan's Company	USA	CJ Cheiljedang Corp.	n.a.	1480.3	17
8/20/18	Keystone Foods LLC	USA	Tyson Foods, Inc.	10.2x	1888.1	14
6/27/18	Pinnacle Foods Inc.	USA	Conagra Brands, Inc.	18.5x	9281.7	2
4/25/17	AdvancePierre Foods Holdings, Inc.	USA	Tyson Foods, Inc.	16.6x	3784.2	8
10/11/16	Lamb Weston Holdings, Inc.	USA	ConAgra Foods, Inc. (Shareholders)	10.2x	4215.2	7
6/18/16	Kuwait Food Company (Americana) K.S.C.P	Kuwait	Adeptio LLC	8.1x	2708.5	10
4/20/15	Iglo Foods Group Limited	United Kingdom	Nomad Foods Limited	8.5x	2600.0	12
7/2/14	Hillshire Brands Co.	USA	Tyson Foods, Inc.	18.2x	6144.4	3
5/22/14	Cooperative for the Marketing of Agricultural Produce in Israel Ltd.	Israel	Bright Food (Group) Co Ltd	10.1x	1281.2	19
5/12/14	Pinnacle Foods Inc.	USA	Hillshire Brands Co.	17.8x	4810.8	6
2/18/14	JBS S.A.	Brazil	Batista family (Private investors)	7.6x	1478.0	18
6/10/13	Seara Alimentos S.A.; Grupo Zenda	Brazil; Uruguay	JBS S.A.	n.a.	2086.8	13
5/29/13	Smithfield Foods, Inc.	USA	WH Group Limited	9.2x	5371.6	4
2/14/13	The Kraft Heinz Company	USA	Heinz Buyout Consortium	17.8x	20337.8	1
ge				12.8x		
n				10.2x		

Figure 3 – Largest deals in the frozen food sector since 2000

Even though private equity firms can leverage the forecasted growth in this market in upcoming years, one should bear in mind that there are some key considerations and challenges that must be taken into account entering the market. One will be able to see hereinafter some key aspects that may wary private equity houses.

III. Forthcoming challenges in the sector

As previously mentioned, one should foresee some hindrances in the frozen foods sector, and businesses that have successfully addressed the latter should be attractive targets relative to their peers. Although a business could anticipate capacity constraints there are some challenges inherent to the industry itself.

a. Complex logistics

The main issue addressed by private equity firms when investing in companies in the space is the limited capacity. As seen in section II, private equity can solve the latter by helping an organization that is not in a position to rent additional space or open another facility. However, there are complex logistics involved in this business. Indeed, one must keep track of the expiry date of the raw materials in inventory, as well as the expiry date of the finished goods on-hand. The latter expands across different products and brands, each with different modulations. Expiration date tracking is of the utmost importance, as one must not subject the end users to consuming spoiled goods. For instance, one of the reasons why this market cannot flourish in the African continent is that there is not a solid infrastructure in terms of frozen facilities. The latter brings food safety concerns as there is no guarantee that the product integrity will be retained within a specific temperature, thus being unable to reduce the risk of potentially harmful bacterial development should thawing start to take place. Generally speaking, developing countries still lack cold chain infrastructure and thus are not able to supply safe frozen storage. As previously seen, financial sponsors should be looking to increase efficiency by streamlining and automating the manufacturing process using intelligent technology – including frozen food conveyor systems – which will avoid such challenges.

b. Margin management

Margin management has become increasingly difficult for the majority of food firms as a result of increased prices for materials, transportation, labor, energy, and consumption, amongst others.

Although, companies in this industry can carry the rising cost to customers and defray these growing expenses labor shortages and supply chain disruptions have also hampered product availability. According to Lincoln International, challenges in lead times and production capacity, stem from transitory conditions that are anticipated to improve over the coming months.

c. Shelf limitations

In addition to that, one of the greatest limitations in this sector is shelf limitations. Frozen food needs to be placed in freezers thus, unlike appetizers or snacks, one cannot suggest new frozen products in every place of the store and drive trial and activation through stands. Such hindrances should incentive companies in the space to continuously innovate (ie. with better-for-you products and plant-based products) and win space in supermarkets and stores every day.

Conclusion

Since the beginning of the Covid-19 pandemic, the frozen foods market has been disrupting the market due to its exponential growth and tremendous market adherence. The increased demand for frozen food products is due to a growing disposable income, consumer's fast-paced lifestyle, and an increased concern to eat healthily. One has seen increased health consciousness among consumers associated with cooking convenience and nutritious benefits. This showed that consumers are willing to pay relatively premium prices for frozen products as these products allow companies to offer healthy while preserving the quality of an assortment of different products.

With that being said, in this report (I. The frozen food market) one started by examining how the frozen food market has developed and the respective outlook for years to come while highlighting the main growth drivers in this market: Increased impulse purchasing and demand

for convenience food, rapidly shifting consumer dietary preferences and developments in the retail landscape.

Afterward, (II. Private equity deal activity) one has seen how the deal-making activity in the private equity sector has reacted to this burgeoning consumer demand and how private equity firms can help firms obtain the much-needed financing for expansion while displaying how private equity companies can leverage partnerships with strategic acquirers to profit from the market's growth.

Finally, (III. Forthcoming challenges in the sector), this report showed what are the main hindrances in the market, as a whole. The latter specifically detailed the main concerns – complex logistics, margin management, and shelf limitations – that private equity firms should consider before placing private placements. In a nutshell, one may conclude by saying that the exponential and abiding interest in this consumer staples industry exhibits a promising outlook in private equity markets.

References

Becker, Heidi. "Promising M&A Outlook for Frozen Food Companies. Accessed December 2022." Accessed December 2022. *Lincoln International LLC*, 15 Nov. 2022, https://www.lincolninternational.com/perspectives/articles/promising-ma-outlook-for-frozen-food-companies/

Renner, Barb, et al. "The Future of Food Survey" Accessed December 2022. Deloitte Insights, Deloitte, 19 Oct. 2021, https://www2.deloitte.com/us/en/insights/industry/retail-distribution/future-of-fresh-food-sales/future-of-food-

survey.html?id=us%3A2sm%3A3li%3A4diUS164844%3A5awa

Anne-Marie Roerink "Frozen Foods Continue to Enjoy High Demand. Accessed December 2022 IRI. https://www.iriworldwide.com/IRI/media/Library/IRI-Frozen-Update-May-2021.pdf

Elana Margulies-Snyderman. Accessed December 2022. "Trends Watch: Frozen Foods." *EisnerAmper*, https://www.eisneramper.com/jagota-tw-ai-blog-0121/

Adnan Durrani. Accessed December 2022. "Frozen Heats up: Millennials' Affinity for Frozen Foods - American Frozen Food Institute." *AFFI*, 12 Jan. 2022, https://affi.org/frozen-heats-up-millennials-affinity-for-frozen-foods/

"Overcoming Frozen Food Supply Chain Management Challenges." *Aptean.com*, https://www.aptean.com/en-US/insights/blog/frozen-food-supply-chain-management-challenges

Baker, Phillip, et al. "Ultra-processed foods and the nutrition transition: Global, regional and national trends, food systems transformations and political economy drivers." *Obesity**Reviews21.12 (2020)

Sen, Shuvro, Neel Antara, and Shusmita Sen. "Factors influencing consumers' to take readymade frozen food." Current Psychology 40.6 (2021)