École Polytechnique de Louvain
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LEPL2212 - Financial Performance Indicators

2023 – 2024

PROJECT REPORT : JOHN MARTIN BREWERY

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1 Introduction

As part of the course on financial performance indicators (LEPL2212), we were asked to carry out an analysis of the financial performance of a company in groups of 4 students.

Throughout this report, we will present the John Martin company in section 2 and analyse its financial performance on the basis of the financial statements and information published by the company in section 3. We will then make a critical judgement on the company's performance and suggest areas for improvement in section 4.

We chose this company because some of us have already been in contact with it by sponsoring certain events. In addition, the beer market is well developed in Belgium and, as students, we are implicitly involved in this market.

2 Presentation of the Company and the Industry

In this section, we look at the history (section 2.1) of the company we're studying, and characterize the historical beer market (section 2.2) compared with today's (section 2.3).

2.1 History of the Company

John Martin is a belgian beer brewery based in Genval (Brabant Wallon) founded in 1909. It is named from his creator, John Martin, an english businessman. The years after the creation, John developped english beers and was in charge, trough his brewery, to flow the Schweppes drink to the European market. He was also the first to import the Guiness beer in the continent, and is thus the oldest retailer of the company *Diageo*, the owner of Guinness [12].

In 1924, he creates the brand *Gordon Scotch Ale*, which is nowadays famous for being cheap strong beers in cans. During the end of the 20th century, the sons of John Martin continued to develop the company by buying some famous drink brands like *Looza*, launching *Orangina* Belgium and participating in the spread and succes of the brand *Schweppes* in Europe.

At the beginning of the 21th century, they create the fruit beers *Timmermans* but also the *Waterloo* and the *Bourgogne des flandres* [9].

Nowadays, the brewery is a middle size company of 50 employes and is selling 12 different brands of beers. They also producing spirits like Gin and Whiskies. They are present in 5 differents sites in Belgium, inluding 5 breweries and 1 distillery [1] [8].

2.2 The Beer Market

Belgium's beer history stretches back centuries, rooted in ancient monastery brewing traditions. The country's fame rests on a foundation of diverse styles, from Trappist ales to lambics, saisons, dubbels, tripels, and sour ales. Breweries, many family-owned for generations, pride themselves on tradition, using top-notch ingredients while embracing innovation. Beer is integral to Belgian culture, enjoyed in social settings and meals alike. Belgium's geography, with its temperate climate and quality water, contributes to its brewing prowess. Globally, Belgian beers are revered, frequently winning awards. This combination of history, variety, tradition, innovation, culture, and acclaim solidifies Belgium's status as a beer destination [16].

Despite a real craze about belgium beer, the number of breweries in Belgium strongly drops during the 20th century, from 3000 in 1900 to 150 nowadays. The consolidation of breweries in Belgium can be attributed to several factors. Firstly, technological advancements, such as automation in production and improved distribution networks, allowed for greater economies of scale. Secondly, the introduction of bottom-fermented beers in the early 20th century increased fixed costs due to the need for artificial cooling during fermentation, leading smaller breweries to exit the market. This process was exacerbated by equipment confiscation during World Wars I and II, as well as capital shortages, prompting many breweries

[1] The brewery and the distillery of Waterloo are on the same site

to merge or cease operations. Lastly, the proliferation of large-scale advertising post-World War II increased sunk advertising costs, which favored larger breweries capable of covering these expenses.

This change of production had an impact on the consumption of beers in Belgium. Indeed, Belgians have been consuming significantly less beer since the 1970s. One reason for this decline is attributed to a change in production methods. Previously, production was based on economy, meaning large volumes were produced at low prices. Now, there is a trend towards *premiumization* ; less beer is produced, but of higher quality, and consequently, beers are sold at higher prices. These *premium* beers are also named craft beers [19].

We can define these as the beers which are in the statistics of Belgian brewers captured under the headings of *Trappist beers*, *Abbey beers*, *Gueuze beers*, and *Specialty beers*.

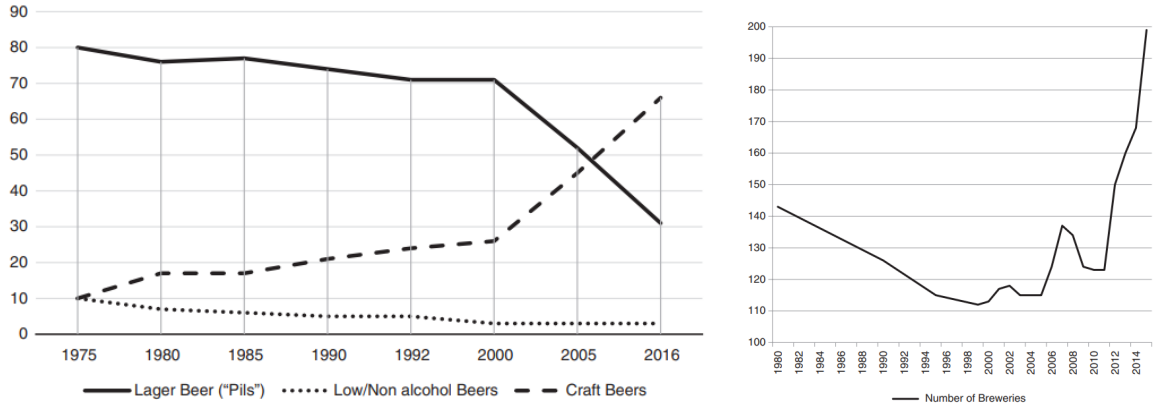

Figure 1: Trend in the number of breweries in Belgium over the years, by type of beer produced [17].

The expansion of craft beer market share resulted from a variety of factors, including heightened production by established breweries and the emergence of new breweries. Indeed we can see on the left graph that for the first time since the 20th century, the number of breweries is growing which indicates that the demand for craft beers is high, as confirmed by the graph on the right.

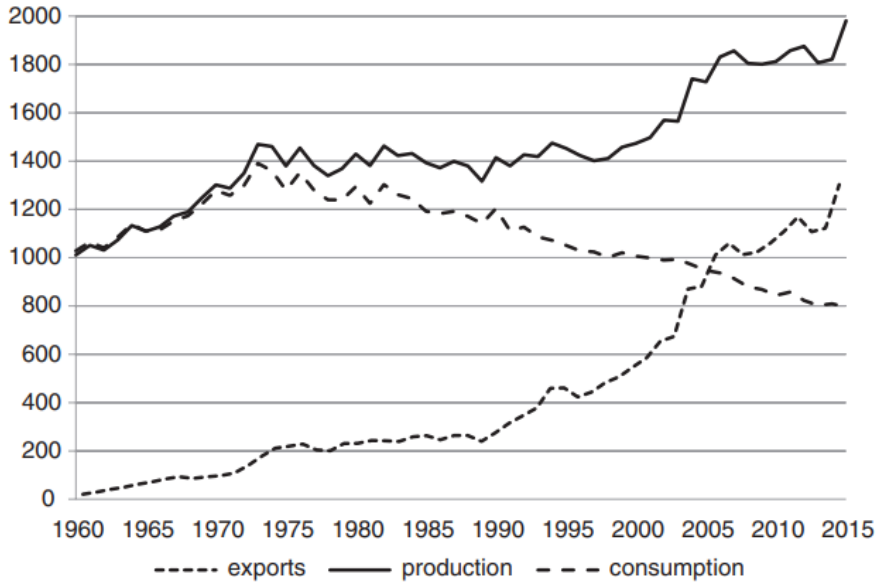

Figure 2: Evolution of the consumption of beers in thousand [hLc] [17]

The reason why Belgium is famous all around the world is because we are producing a lot of authentic craft beers. For this reason, the growing exports have compensated for the fall in beer consumption in Belgium.

2.3 The actual market

2.3.1 Market segmentation

There are several way to segment the belgian beer market, we can split it between :

- **Import and Export** : During 2022, The belgians consumed 6.399.507 hL of beers, and export 16.390.562 hL, representing respectively 30% and 70% of the production in Belgium. The economic contribution of the sector has been estimated at 1.7 B$ in export, making it the 3rd largest exporter of Beer in the world behind the Netherlands and Mexico.
- **Horeca and retails** The horeca sectors represents 40.8 % of the total consumption of beers and 59.2% came from the retail business.
- **Export destination countries** : France, the Netherlands, Italy, Spain and China are the main importers of belgians beers in the world.

2.3.2 Market growth and risk

During the last 20 years, globally the numbers of export had been increasing constently while the consumption of beers in Belgium continue to follow the decreasing trend. This might be due to the interfederal plan on alcohol which aims to reduce the consumption of alcohol and the car accidents. The compain is working very well since only 1.8% of the people controlled by the Police in 2023 had been judged positive. However, the beer industry suffers from multiple crisis, especially for the 3 last years with the COVID pandemy and the crisis of the raw materials and the energy due to the war in Ukraine. The exportation reached a peak in 2019 and the breweries is currently struggling to reach this amount again.

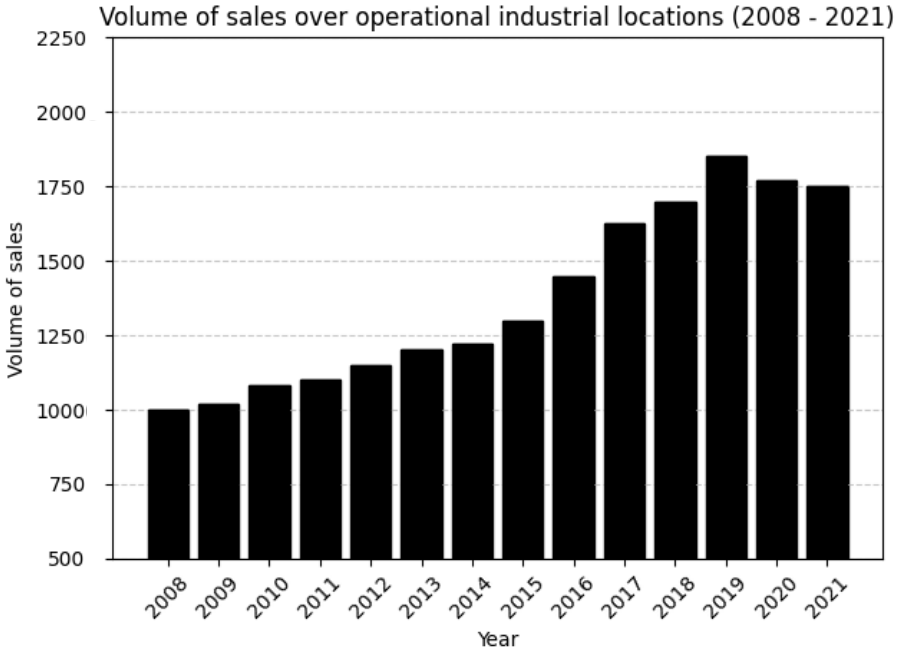

Figure 3: Annual volume of beer exported from Belgium in thousand [hL] from 2008 to 2021

Indeed, the year of 2020 was terrible for the beer sector due to the closure of the horeca sector, the sells in this segment drops from 50 % in comparison to 2019. It was the first time since the 2nd world war we faced such a decreasing. It was also the start of the decreasing of the exports sells.

In 2022, Despite the impact of the war in Ukraine, the consumption of belgian beers almost reach his level before the COVID-19 crisis, showing that Belgian brewers demonstrate resilience and have a great sense of innovation. However, the belgian beer market is loosing a big part of the market in the United States, with a drop of 71% in the exportation in this country in comparison with 2021. The reason is that the USA are now mainly importing beers from Mexico, which are cheaper and less far away.

Finally, a last important event happend in 2023. It was the first time since the last two decades that Belgian brewery numbers fall. 417 firms were noted at the end of 2023, which is 13 less than 2022. The war in Ukraine, which pushed up the cereal costs is one of the reason but not only. Another reason is that there were a lot of new micro-breweries created at the same time, and even if there is a demand for them, a change in consumption patterns of people who want local and artisanal products, there have been perharps too many at once. Industrial beer is taking a lot of place so it is difficult for the micro-breweries to evolve. This event will normaly not influence John Martin since it is well implented and that they have an already well developped customers network. We will confirm this hypothesis by analyze the financial numbers later in this report.

2.3.3 Market share & competition

In 2022, 430 breweries had been listed by the *federation of the belgian brewers*, including 32 new ones for 10 closures. It confirms thus the increasing tendence of the number of breweries we spot before 2023. Amongst these breweries, John Martin is ranked at the 12th place based on the turnover. The competitors which are doing better than them are given by this graph :

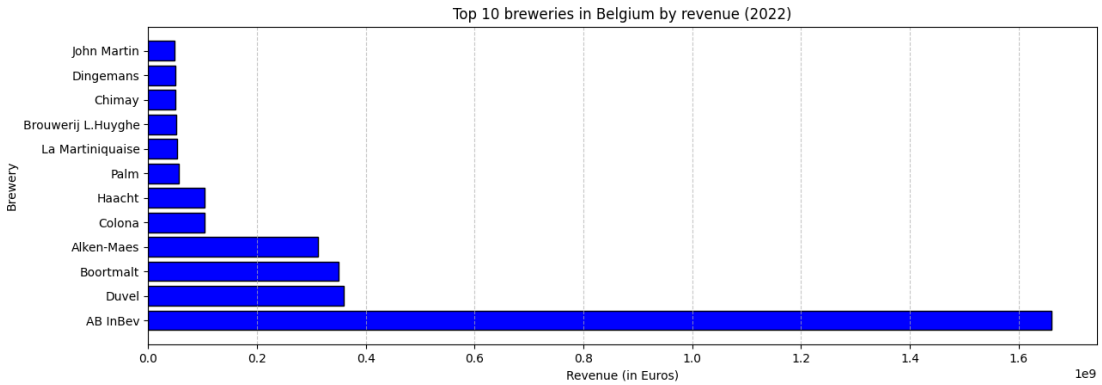

Figure 4: Turnover of the 10th biggest breweries in Belgium [7]

At first place, we found the group inBev Belgium which produce the worlwide famous *Stella Artois*.

3 Financial Performance Analysis of the Company

The analysis of the company's performance will be divided into 4 parts. First, we will look at wealth creation in section 3.1, using the indicators known in the industry. Then we will move on to the study of investments in section 3.2, to continue with the financial analysis in section 3.3 and finish with the company's profitability in section 3.4.

3.1 Wealth Creation

Wealth encompasses the tangible and intangible assets held by individuals, companies or entities, net of debts. It is generally quantified by the net worth of an individual or entity, which represents all accumulated economic resources, including movable and immovable assets. Money is the main measure of wealth, with most assets being valued in monetary terms. As a result, net worth is emerging as a universal indicator of wealth, facilitating comparisons between different currencies. We study the creation of wealth through 4 factors detailed below: gross margin, gross operating profit, operating profit and net financial expenses and incomes [6].

Margin Analysis - Gross Margin

Analysing a company's margin is the first step in any financial analysis. It illustrates the fact that a company that cannot sell its products or services to its customers at a price higher than their cost is doomed to failure [18].

$$\text{GROSS PROFIT} = \text{SALES} - \text{Cost of Good Sold} \tag{1}$$

$$\text{GROSS MARGIN} = \frac{\text{GROSS PROFIT}}{\text{SALES}} \tag{2}$$

Instead of looking at gross value, we look at the ratio. This makes it possible to get away from the orders of magnitude between the different companies and to compare them better at first glance.

	2022	**2021**	**Evolution**
GROSS MARGIN [%]	11.76	9.86	+1.9

Table 1: Gross margin comparison of JM company.

Net value added The increase in gross margin is reflected in particular by an increase in the value added to the products it manufactures and to its assets, i.e. the value added by the company to the goods and services purchased from third parties as part of its activities. Total net value added will be 9.60M€ in 2022, compared with 7.92M€ in 2021. A total increase of 21%.

$$\begin{aligned}\text{VALUE ADDED} = {} & \text{SELLING PRICE (of a product or service)} \\ & - \text{COST TO PRODUCE (the product or service)}\end{aligned} \tag{3}$$

	2022	**2021**	**Evolution**
Added value - sales [%]	18.76	17.35	+1.41
Added value - fixed assets [%]	24.89	21.31	+3.58
Number of employees [#]	41	40	+1

Table 2: Non-exhaustive list of JM's value-added ratios.

Gross Operating Profit (EBITDA)

EBITDA, which stands for Earnings Before Interest, Taxes, Depreciation and Amortisation, is an alternative indicator of profitability to net income. It aims to represent the cash profit generated by a company's activities, before taking into account depreciation, amortisation, taxes and debt repayment expenses [10].

EBITDA is indicated in [18], and only the mark of this measure will be shown, according to the following equation :

$$\text{EBITDA margin} = \frac{\text{EBITDA}}{\text{Sales}} \tag{4}$$

	2022	**2021**	**Evolution [%]**
EBITDA [M€]	5.97	4.64	+28.66
EBITDA margin [%]	12.08	10.50	+1.58

Table 3: Comparison of JM's EBITDA indicators over 2021-2022.

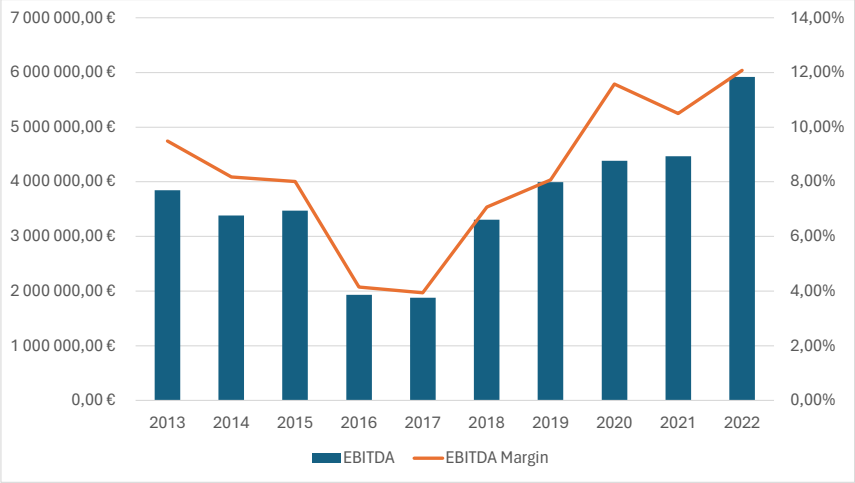

Figure 5: Comparison of JM's EBITDA indicators over years.

The changes in EBITDA are attributable, in our case, to an increase in revenue of +1.13% (operating revenue from 8.13% in 2021 to 9.26% in 2022), this increase being due to increased exports to China, which is very fond of Belgian beer and Lambic and whose market is still developing. EBITDA can also vary via labour and raw material costs, but these variations are marginal in our situation. EBITDA has grown relatively steadily since 2016-2017.

Operating Profit (EBIT)

EBIT (Earnings Before Interest and Tax) reflects a company's profitability by measuring its operating profit after taking into account non-cash expenses such as depreciation, provisions and amortisation. It is calculated by subtracting all expenses, except tax and interest, from sales. EBIT is a key indicator of a company's core operating performance, often referred to as operating income. EBITDA, on the other hand, goes a step further by also excluding depreciation and amortisation, giving a clear idea of the cash profit generated by the company's activities, without taking into account non-cash expenses [15]. This indicator is calculated as follow :

$$\begin{aligned} \text{EBIT} = {} & \text{EBITDA} \\ & - \text{DEPRECIATION AND AMORTISATION} \\ & + \text{WRITEBACKS OF DEPRECIATION AND AMORTISATION} \end{aligned} \tag{5}$$

	2022	2021	Evolution [%]
EBIT [M€]	4.56	3.29	+38.60
EBIT margin [%]	9.24	8.13	+1.11

Table 4: Comparison of JM's EBIT indicators over 2021-2022.

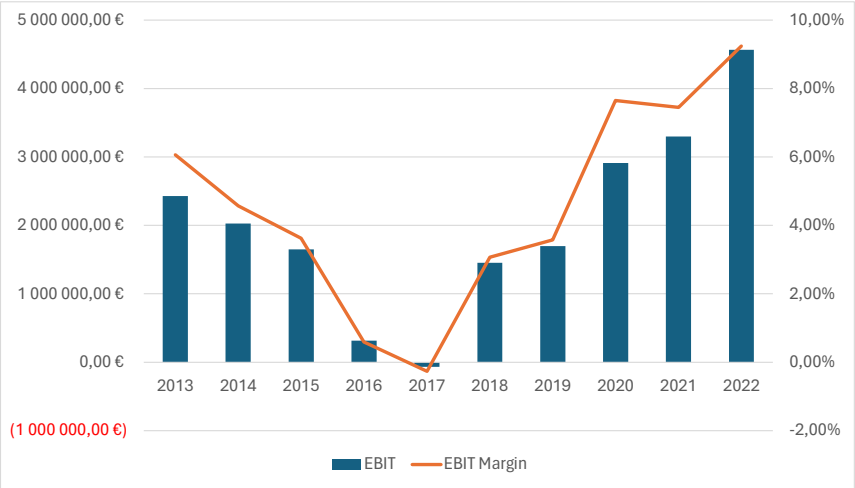

Figure 6: Comparison of JM's EBIT indicators over years.

Variations in EBIT can be due to a variety of factors affecting a company's operating performance. These factors include fluctuations in sales, changes in the cost of goods sold, adjustments in operating expenses, changes in sales volumes, efficiency improvements, restructuring efforts and the acquisition of a new brewery. As is the case for EBITDA, EBIT has been growing almost constantly since 2016-2017, as these two variables are linked by an almost constant difference.

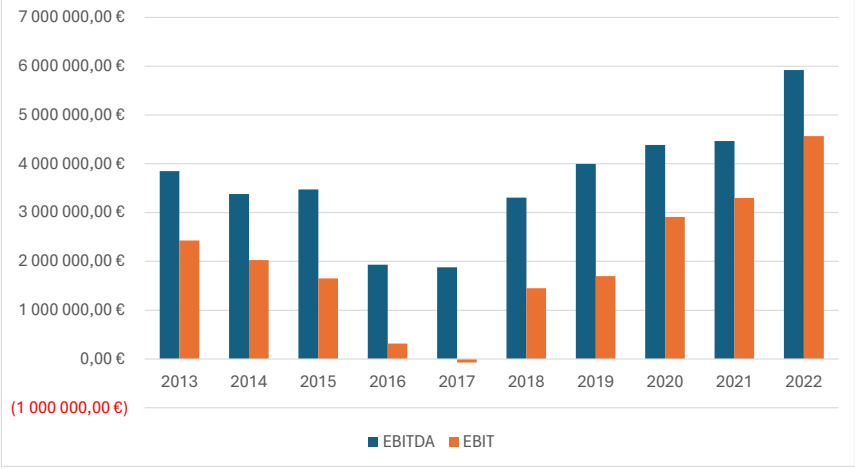

Figure 7: EBITDA and EBIT variations over years

This figure illustrates the difference between EBITDA and EBIT, which correctly reflects the subtraction of one variable from EBITDA to obtain EBIT.

Net Financial Expense/Income

Net financial expenses include all interest payable, commissions and other recurring financial expenses accrued on total consolidated debt during a given period, less interest receivable by the Group during the

same period. These financial items, which reflect the company's financial policy and prevailing interest rates, are generally in monetary balance. In addition, net financial expense is not directly related to the operating cycle [11].

Net financial expenditure is calculated from financial expenditure and income as follows [18] :

$$\begin{aligned} \text{NET FINANCIAL EXPENSE} = \text{FINANCIAL EXPENSE} \\ - \text{FINANCIAL INCOME} \end{aligned} \tag{6}$$

Another indicator, pre-tax profit, is calculated as follows and identifies the amount of tax payable by a company:

$$\begin{aligned} \text{PROFIT BEFORE TAX} = \text{EBIT} \\ - \text{NET FINANCIAL EXPENSE} \end{aligned} \tag{7}$$

	2022	**2021**	**Evolution [%]**
PROFIT BEFORE TAX [M€]	4.60	3.11	+47.91
INCOME TAXES [M€]	1.43	0.86	+66.28
PROFIT FOR THE YEAR [M€]	3.17	2.25	+40.89

Table 5: Comparison of JM's profits over the years.

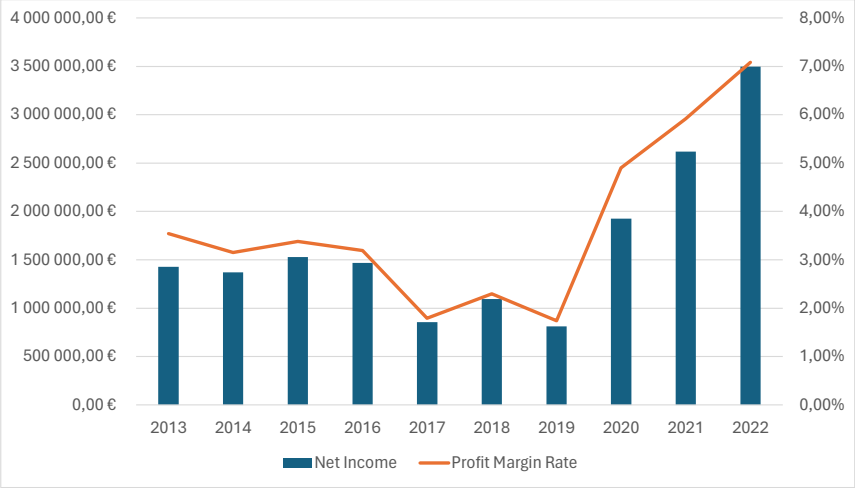

Figure 8: Profit margin rate and net income comparison over years

Financial expenditure, which has been falling since 2013 and will continue to do so until 2019, then rising sharply until today. The increase in sales volume, which was already having an impact on EBIT, is also having a major impact on the profit margin rate and net income.

3.2 Investments Analysis

The investment analysis of a company enable us to understand how does the company spends and allocates its ressources to fund its operations and expand its infrastructures. A few performance metrics and ratios can be used to evaluate the company's investment strategy and its efficiency in managing its capital. The net working capital, working capital requirement, working capital ratios and capital expenditures are some of the key metrics that can be used to evaluate the company's investment performance.

Working Capital

The net working capital (NWC) is defined as the difference between the permanent capital and the fixed assets of the company. It is a measure of the company's liquidity and its ability to meet its short-term obligations. The working capital requirement (WCR) is the amount of working capital needed to fund the company's operations and is calculated as the difference between the current assets and the current liabilities of the company.

The net cash position is the difference between the net working capital and the working capital requirement. A positive net cash position indicates that the company has excess working capital to fund its operations, while a negative net cash position indicates that the company may need to raise additional capital to meet its short-term obligations.

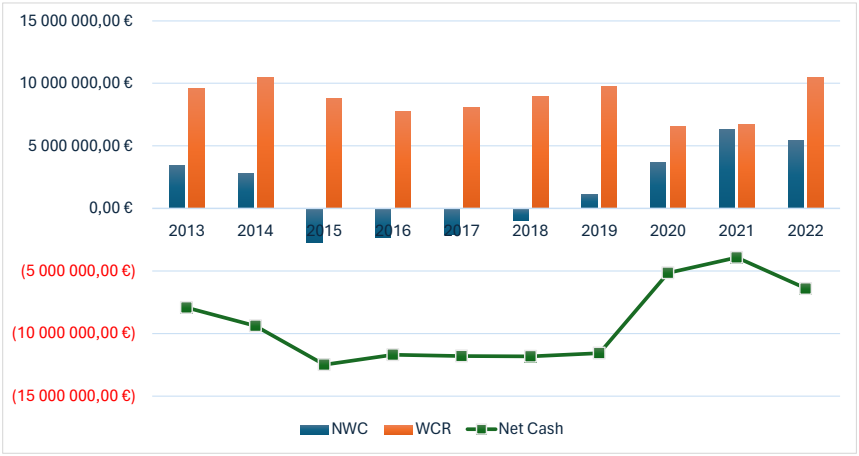

Figure 9: NWC - WCR - Net Cash Position

In Figure 9, we see that for the last 10 years the WCR is greater than the NWC, which means that the company has been using more working capital than it has available. Indeed, we also note that the net cash position has always been negative, which indicates that the company may need to raise additional capital to meet its short-term obligations.

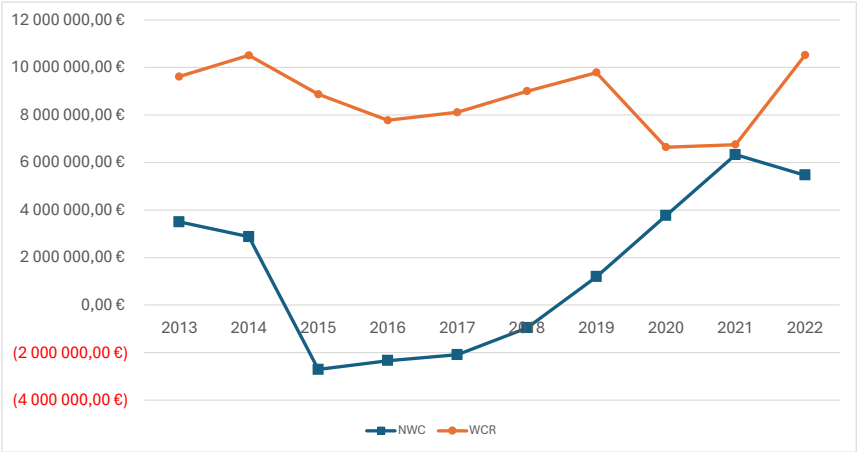

Figure 10: Working Capital Growth

Figure 10 shows the evolution of the NWC and the WCR over the last 10 years. We can see that overall the WCR is higher than the NWC, which indicates that the company has been using more working capital than it has available. This could be due to the company's investment strategy, which may involve using more working capital to fund its operations and expand its infrastructure. What is important to notice is

that the gap between the NWC and the WCR has not increased dramatically over the years nor has the WCR crashed way below the NWC (which could indicate bankruptcy). This shows that the company has been maintaining a relatively stable growth over the years. The exception might be 2020 and 2021, the 2 years after the COVID-19 crisis which might have disturbed the company's operations.

Working Capital Ratios

Working Capital Ratios (AR, AP and Inventory Turnover) are used to evaluate the efficiency of a company's working capital management. The accounts receivable turnover ratio measures how quickly a company collects cash from its customers, the accounts payable turnover ratio measures how quickly a company pays its suppliers, and the inventory turnover ratio measures how quickly a company sells its inventory.

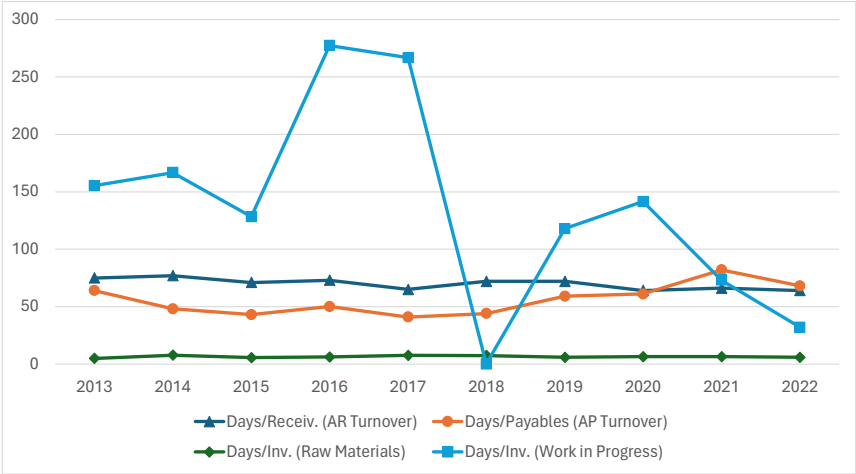

Figure 11: Turnover Ratios (Days/Inv. Work Progress 2018 Data is n.a. which explains the sudden crash to 0)

We can observe on Figure 11 that the Days/Inventory Turnover of Work in Progress has been much greater than the other turnover ratios for some time, which indicates that the company has been stocking up its beers for a while before selling them. This could be due to the nature of the beer industry, where beers need to be aged for a certain period before they can be sold. We see however that for the last 2-3 years the Days/Inventory Turnover of Work in Progress has been decreasing, which could indicate that the company has been improving its inventory management and is now able to sell its beers more quickly, or that they have been introducing more beers that do not need to be aged for a long time.

The Days/Inventory Turnover of Raw Materials has been stable and quite low comparatively to the Turnover of Work in Progress, this shows that the raw materials are being used almost immediately after they are bought and are not stocked up for a long time before brewing the beer.

The AR and AP Turnovers have been relatively stable over the years, which indicates that the company has been able to collect cash from its customers and pay its suppliers in a timely manner. This is a good sign of the company's financial health and efficiency in managing its working capital.

Capital Expenditures

The state of the company's fixed assets can be measured by the ratio:

$$R_{FS} = \frac{\text{Net Fixed Assets}}{\text{Gross Fixed Assets}} = \frac{\text{Gross Fixed Assets - Depreciation}}{\text{Gross Fixed Assets}}$$

In Table 6 is reported the Gross Fixed Assets, Depreciation and Net Fixed Assets which is the difference between the Gross Fixed Assets and the Depreciation. The ratio R_{FS} is also computed. As we can see, the ratio being relatively close to 1, we can claim that either the company has been spending ressources to

renew their equipment recently or that their plants, equipments and buildings lightly depreciate over the years.

	2022	**2021**	**Evolution [%]**
Gross Fixed Assets [M€]	17.45	16.32	+6.8%
Depreciation [M€]	1.40	1.39	+4.1%
Net Fixed Assets [M€]	16.09	15.15	+6.1%
R_{FS}	92%	93%	-

Table 6: Fixed Assets Ratios

3.3 Financing Analysis

The analysis of how a company is financed can be done in two ways: Dynamic analysis and static analysis.[18]

A static analysis of a company's finances involves evaluating its current financial situation without considering changes over time. It focuses on assessing the company's ability to repay its debts and its risk of illiquidity at a specific moment. This type of analysis provides a snapshot of the company's financial health at a single point in time, without accounting for future developments or fluctuations in market conditions. We will focus on the static analysis in this report

Static Analysis of The Company's Financing

The static analysis concentrates on the company's exact debt level at a specific moment and its ability to fulfill obligations while sidestepping liquidity crises. Two main questions must be answered in this analysis :

- Can the company repay its debts ? To answer to this question, it is necessary to verify whether the operating cash flow suffices to cover capital expenditure and fulfill debt repayment obligations. This can be checked with a simplified analysis by means of ratios.

The first ratio to analyze is the Net Debt-to-EBITDA Ratio. The Net Debt-to-EBITDA ratio is a debt ratio that shows how many years it would take for a company to pay back its debt if net debt and EBITDA are held constant. However, if a company has more cash than debt, the ratio can be negative.[13]
The formula of this ratio is thus :

$$\text{Net Debt to EBITDA} = \frac{\text{Total Debt - Cash and Equivalents}}{\text{EBITDA}} \tag{8}$$

In the case of John Martin, for the year 2022, knowing that the value of the long term debts is 5.33 M€ and that the value of the short term debt is 20.20 M€, we found for the value of the total debt 25.52 M€. With the EBTDA (5.92M€) and the cash and cash equivalent (1.21 M€) we finally find for the Net Debt-to-EBITDA for 2022 :

$$\text{Net Debt to EBITDA} = \frac{25.52 - 1.21}{5.92} = 4.1 \tag{9}$$

Ratios higher than 4 or 5 typically set off alarm bells because this indicates that a company is less likely to be able to handle its debt burden, and thus is less likely to be able to take on the additional debt required to grow the business [13]. With a ratio of 4.1, John Martin is not in a favorable situation in terms of its ability to take on new debt in order to expand its business..

When we analyze the evolution of the Net Debt-to-EBITDA ratio over the year, cf. fig. 12, we can see that globally, John Martin Net Debt-to-EBITDA ratios have always been above 4, showing that the company has difficulties to repay its debts over the year or that they take additionnal debt over the years in order to grow their business. We can see that the year 2016 and 2017 have very high values for the ratio, that could frigthened investors. This is in direct relation with the fact that over these years, a big loss in EBITDA occured, explaining these high values.
Nevertheless, we can see that since 2016, the ratio values are decreasing. This comes directly from the fact

that the EBITDA is in constant growth since 2016, cf. fig. 7. The values of the Net Debt-to-EBITDA are thus quite alarming but the positive evolution over the years are reassuring for the futur.

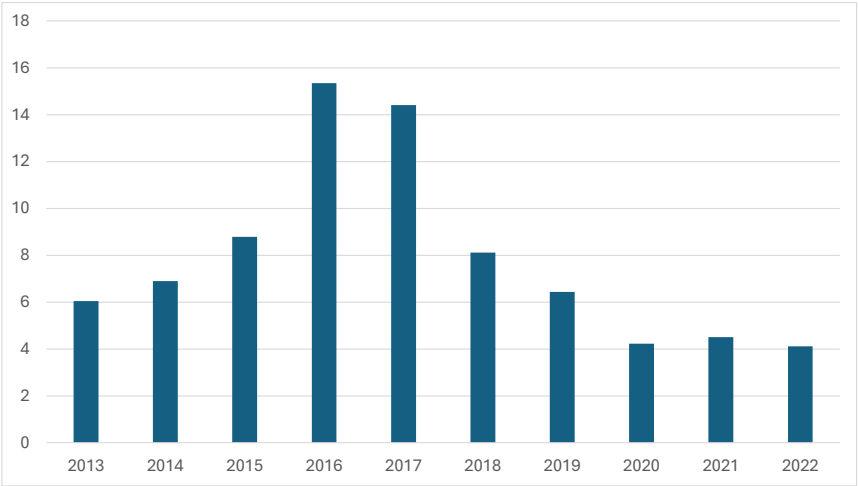

Figure 12: Net Debt-to-EBITDA ratio evolution since 2013

The second ratio to analyze in the context of the debts is the debt service ratio also called the Interest Coverage ratio. The interest coverage ratio is a debt and profitability ratio used to determine how easily a company can pay interest on its outstanding debt. The interest coverage ratio is calculated by dividing a company's earnings before interest and taxes (EBIT) by its interest expense during a given period [10] :

$$\text{Debt service ratio} = \frac{\text{EBIT}}{\text{Interest Expense}} \tag{10}$$

The lower the ratio, the more the company is burdened by debt expenses and the less capital it has to use in other ways. When a company's interest coverage ratio is only 1.5 or lower, its ability to meet interest expenses may be questionable.[10]
For 2022, with a value for the interest paid of 262 997€ and a value for EBIT of 4.56 M€, we found a debt service ratio of :

$$\text{Debt service ratio} = \frac{262997}{4564447} = 17.35 \tag{11}$$

This value is way higher than the critical value of 1.5. In simpler term, this shows that John Martin can make the interest payments with their currently available earnings during 17.35 fiscal years. It shows that the company is not burdened at all by its debt expenses.

When we analyze the evolution of this ratio over the last 10 years cf. fig. 13, we can see again that the value for 2016 and 2017 are quite alarmous. Indeed, as you can see in fig. 7, the values of the EBIT for these two years were near 0, explaining these very low values for the Debt service ratio (the interest values are quite constant over the years, it is thus only the EBIT that influences the result). However, as for the Net Debt-to-EBITDA ratio, we can see that since these two difficult years, this ratio never ceased to increase, showing the ability of the company over the years to pay its interests.

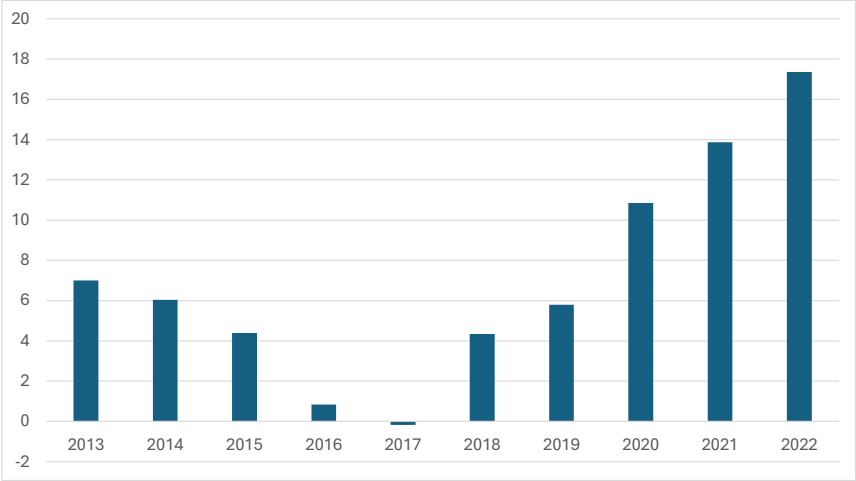

Figure 13: Debt service ratio evolution since 2013

- Is the company running a risk of illiquidity ? Illiquidity refers to a situation where the assets of a company take longer to convert into cash compared to the timeline for settling its liabilities. This imbalance in maturity between assets and liabilities poses a risk: if assets cannot be liquidated quickly enough to meet impending payment obligations, the company faces difficulty fulfilling its commitments as scheduled. In such cases, the company must seek additional resources to bridge the gap and meet its financial obligations, even though bankruptcy may not be imminent.

The liquidity of a company can be analyzed with the help of 3 ratios :

- The current ratio compares all of a company's current assets to its current liabilities. These are usually defined as assets that are cash or will be turned into cash in a year or less and liabilities that will be paid in a year or less. The current ratio helps investors understand more about a company's ability to cover its short-term debt. A company in general must maintain current ratio above 1 [18] to cover risks related to its business. In the case of John Martin, we have for the year 2022 :

$$\text{Current ratio} = \frac{\text{Current assets}}{\text{Current liabilities}} = 1.27 \tag{12}$$

  This is thus positive in term of liquidity.

- The second ratio is the liquidity ratio. This ratio take into account the fact that inventories may not be liquidate so easily. Again, a value above 1 is seek. Here is the liquidity ratio for the year 2022 for John Martin S.A :

$$\text{Liquidity ratio} = \frac{\text{Current assets - inventories}}{\text{Current liabilities}} = 0.99 \tag{13}$$

  We can see here that the ratio is just below 1. This could thus cause a problem in the futur for the company if they don't manage to liquidate their inventories quickly.

- The last ratio to analyze in term of liquidity is the cash ratio. It specifically calculates the ratio of a company's total cash and cash equivalents to its current liabilities. The metric evaluates company's ability to repay its short-term debt with cash or near-cash resources, such as easily marketable securities. This information is useful to creditors when they decide how much money, if any, they would be willing to loan a company. In the case of John Martin for the year 2022 :

$$\text{Cash Ratio} = \frac{\text{Cash and cash equivalent}}{\text{Current Liabilities}} = 0.059 \tag{14}$$

  This low value of cash ratio can be find in many companies. This shows that is it thus risky for lenders, creditors and inverstors to particpate in the company in the very short term.

3.4 Profitability Analysis

In this section, we will analyse how well the company is profitable trough different ratio : the ROCE, the ROE and the leverage.

Return on Capital Employed (ROCE)

A metric interesting to illustrates how efficiently the company utilizes its capital is the ROCE. It serves to gauge a company's profitability by comparing its earnings after interest and taxes (NOPAT : EBIT* (1-Tax Rate)) to the total capital employed. We calculate the Tax rate for each accounting period by applying this formula [2]:

$$\text{Tax Rate} = \frac{\text{Tax Expense}}{\text{Earnings Before Taxes}} = \frac{1.43\ [\text{M€}]}{4.93\ [\text{M€}]} = 31.09\% \tag{15}$$

In the fiscal year 2022, the ROCE is:

$$\text{ROCE} = \frac{\text{NOPAT}}{\text{Fixed assets + working capital}} = \frac{3.21\ [\text{M€}]}{16.31\ [\text{M€}] + 6.64\ [\text{M€}]} = 14.01\% \tag{16}$$

This figure implies that for each dollar invested, the company generates a return of 14.01 cents.

Return on Equity (ROE)

ROE stands for Return on Equity. It's a financial ratio that measures a company's profitability by revealing how much profit a company generates with the money shareholders have invested.

The ROE for the year 2022 is:

$$ROE = \frac{\text{Net Income}}{\text{Shareholder's Equity}} = \frac{3.50\ [\text{M€}]}{16.45\ [\text{M€}]} = 19.28\%$$

ROE essentially shows how efficiently a company is using its shareholders' equity to generate profit. A higher ROE indicates that the company is generating more profit with less shareholder investment, which is generally seen as a positive sign of financial health and efficiency. However, it's essential to consider industry standards and compare ROE with competitors or historical performance to gain meaningful insights.

Comparing with the average ROE in Europe for the beer market of 14.8%, we can see that John Martin is doing better [20], by almost 50 % more.

Comparison between ROCE and Return Required by Shareholders and Lenders

In essence, ROCE considers both debt and equity financing, providing a broader perspective on capital efficiency and risk, while ROE specifically evaluates the return to equity investors, offering insights into shareholder profitability but not accounting for the risk associated with debt financing. The ROCE is thus more complete than the ROE. As the company has debts, it is normal than the ROCE is below the ROE (by 7% in 2022) but the ROCE is still higher than the average ROE of Europe which translate a very good performance from John Martin.

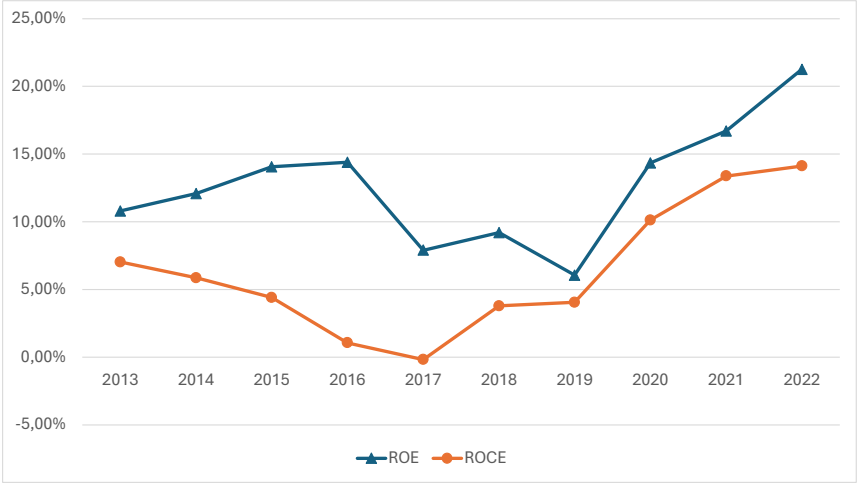

Figure 14: Comparison of the ROCE and the ROE

Comparing with the previous, we can see that the ROE and ROCE is increasing, even during the COVID crisis. One reason is that China is well demanding for belgium beers. Indeed, between 2021 and 2022, the export from Belgium to China has globaly increased by 58.21 % [1]. And has they well precise it on their website, China is a big fan of the Alambic beers that John Martin's is producing. So we can sport here a correlation between the increase of ROE and this current trend.

The leverage effect

To combine the ROE and ROCE, we introduce the leverage ratio as a financial metric used to evaluate the extent to which a company relies on debt or assess its capacity to fulfill financial commitments. This metric is crucial because companies typically utilize a blend of equity and debt for operational financing, and understanding the level of debt within a company aids in determining its ability to manage debt obligations as they arise. We calculate the leverage for 2022 as [3]:

$$\text{Leverage } = (\text{ROCE} - (\text{Interest rate} * (1 - \text{Taxe Rate}))) * \frac{\text{Net Debt}}{\text{Equity}} = 16.76\%$$

with :

- Interest rate = 2.96 % (in Belgium, 2018)
- Taxe interest = 29 % (in 2022)

A leverage of 16.64% suggests that the company has a moderate level of debt in its capital structure. Generally, a higher leverage implies a higher risk because it means the company has more debt obligations to fulfill, which can become challenging during economic downturns or if the company faces financial difficulties.

4 Recommendations for Managerial Decision-Making

As we can see on Figure 15, each year, a big part of the Gross margin profit is reduced when we take into account the services and other goods the company is purchasing to generate their profit.

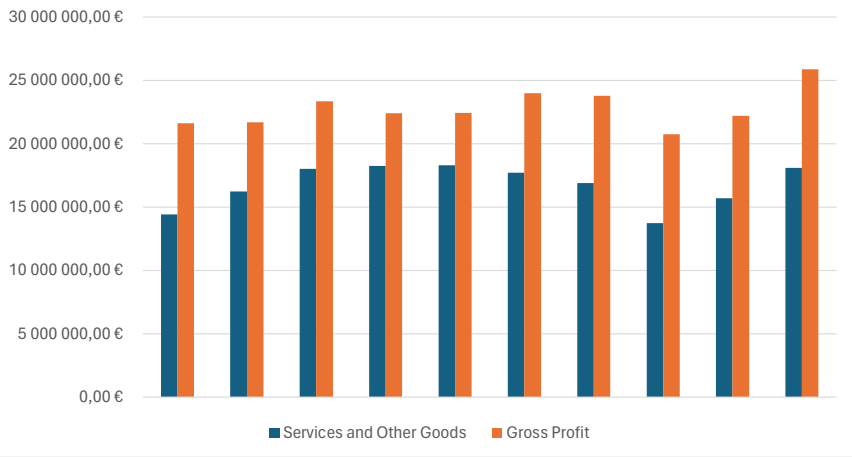

Figure 15: Evolution of the gross profit and expenses in services and other goods over the years

These expenses account for various charges such as, but not limited to, locative charges of lands and buildings, water, gaz and electricity consumptions, repairs and maintenances, insurances, transports, etc. Based on the knowlege that we have of the company, what we suggest to John Martin is to reduce this amount by followings some recommendations:

- **Reduce Locative Expenses** To reduce their locative charges, the company could invest in the acquisition of the lands and buildings it uses to operate. Buying the buildings that house the breweries instead of paying rents. That is indeed what the company did in 2022 when they acquired the Mont-Saint-Jean Farm in which they already invested 2M€ back in 2015 to install brewing equipments in the farm. This was part of a plan to renew the farm that was left abandoned ([4]).
- **Reduce Their Electricity Charges** We suggest them to highly invest on solar panels. Indeed, we remarked that a lot of their breweries and distilleries are hold buildings, with low building energy performance. It is a long term profitable investement, and can help them to reduce their carbon footprint. By doing this, they will receive subsidies from the state. In Ab inBEV, one of their concurrent, they launched The solar Sharing Project. It was co-founded with the help of 269 private local investors who will get an average gross return on investment of 3% for the next 5 years [5]. We suggest to John Martin to build the same kind of project.

Other recommendations we would suggest are more directed towards the future of their operations in terms of sustainability and growth opportunities using new technologies. For example:

- **Reduce Carbon Emissions** Brewing beer is a complex process that requires careful control of various parameters such as temperature, humidity and carbon dioxide levels. Many breweries struggle to maintain optimal CO2 levels, which affects the quality and taste of their beer. One of the main ways breweries control CO2 emissions is to capture and reuse the gas produced during fermentation. During the brewing process, yeast converts sugar into alcohol and carbon dioxide. Breweries have implemented specialized systems to capture and reuse this carbon dioxide. We strongly suggest to John Martin to invest on that kind of solution. [14]
- **Integrate AI in Brewing Process** Leverage the potential of data-driven decision-making and optimize your brewery's financial performance through precise numerical analysis and reinforcement learning techniques. Employ analytics tools to monitor key performance indicators such as production costs, sales dynamics, and customer preferences, facilitating the implementation of robust solutions. This approach enables the brewery to iteratively improve strategies based on feedback loops, enhancing efficiency and profitability over time. By integrating reinforcement learning algorithms, the brewery

can adjust operations and resource allocation, ensuring reliable decision-making in response to e market conditions. The use of data-driven methodologies fortified by reinforcement learning principles empowers the brewery to achieve optimal financial outcomes.

5 Conclusion

In conclusion, the financial performance indicators and investment analysis provide a comprehensive view of John Martin S.A.'s financial health and strategic investments. The company has shown significant improvement in key financial metrics, such as EBITDA and net income, reflecting effective financial management and a favorable economic environment. The investment analysis reveals that while the company has maintained a stable growth trajectory, it faces challenges with its working capital management, evidenced by a consistently negative net cash position.

The analysis of working capital ratios indicates improvements in inventory management and consistent efficiency in accounts receivable and payable. However, the company's ability to handle debt, as shown by the Net Debt-to-EBITDA and debt service ratios, suggests a need for cautious debt management to avoid potential financial strain.

Furthermore, the profitability analysis highlights strong returns on capital employed and equity, surpassing industry averages, and indicates that the company's strategic investments, particularly in fixed assets, are paying off. The recommendations provided aim to enhance operational efficiency, reduce costs, and improve long-term sustainability by addressing areas such as locative expenses, energy consumption, carbon emissions, and the integration of advanced data-driven decision-making tools.

Overall, John Martin S.A. is in a solid financial position with positive growth prospects, but it must continue to focus on efficient capital management and strategic investments to sustain its competitive edge and financial stability.

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