

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

Navigating through Crises: Market Potential
for Vetropack's Growth?

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A Project carried out on the Master in Finance Program, under the supervision of:

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Abstract

This paper is **one part** of the “**Navigating through Crises**” Equity Research report on **Vetropack Holding AG**, a Swiss glass packaging production company that has faced multiple severe crises in recent years, impacting it on various levels. This part includes a macroeconomic and market analysis, a competitive landscape, key risks and opportunities, an analysis of historical financials, forecast implications and management guidance. It also contains a relative valuation, discount discussions, an ESG evaluation and final recommendation.

The Equity Research report suggest a **BUY** position. This is based on the share price of CHF 30.90 as of 06.05.2024 and a projected target share price of CHF 34.55 on 31.12.2024. Including a projected dividend payment of CHF 1.00, the report anticipates a total return of 15.1% within this period.

Keywords

Vetropack
Glass Packaging
Equity Research
Valuation

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This report is part of the Vetropack Holding AG Equity Research report “Navigating through Crises” (annexed), developed by Manuel Kienzle and Mina Andjelkovic and should be read as an integral part of it.

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Introduction

This individual part belonging to our master thesis offers an in-depth analysis of Vetropack Holding AG, a leading Swiss glass packaging manufacturer. Our efforts have produced an insightful equity research report to assist investors in evaluating Vetropack and to gain an extensive understanding of the company for their investment strategy.

On a macroeconomic level, Vetropack encountered a myriad of challenges stemming from the Russian-Ukrainian war and its repercussions for Europe. Inflation, energy price surges and interest rates led to an escalation in production costs, operational disruptions, and lower consumer spending, considerably decreasing demand. However, improving market conditions will aid Vetropack in the long-term in its return to pre-crises performance, leveraging its business fundamentals, such as its adaptability to cost changes and innovation capacities.

The following contents pertain to this report: a macroeconomic and market analysis, a competitive landscape overview, key risks and opportunities, an analysis of historical financials with forecast implications and management guidance, a relative valuation, discount discussions, an ESG analysis and the final recommendation.

The other part of the master thesis includes complementing sections, such as a company overview, a SWOT and Porter's 5 Forces analysis, market trends, a forecast of the operating model, a cost of capital assessment, intrinsic valuation (DCF), scenario analysis. It is crucial to recognize that both parts need to be taken into account to gain a thorough and complete insight into the company, its market environment, and overall valuation.

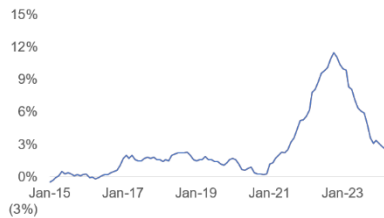
In conclusion, we recommend a **BUY** decision for Vetropack. Our suggestion is built upon the historical share price of CHF 30.90 as of May 6, 2024, with a derived target price of CHF 34.55 by December 31, 2024. A total return of 15.1% is expected, containing an estimated dividend of CHF 1.00.

Industry overview

Macroeconomic analysis

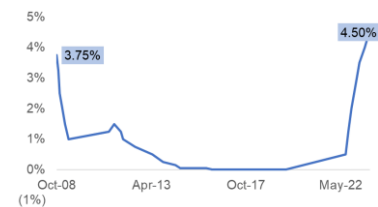
The macroeconomic environment significantly impacts Vetropack by imposing challenges within their business framework. For instance, the since 2022 ongoing Russian-Ukrainian war led to far-reaching geopolitical ramifications in Europe. With Russia as the main European supplier of natural gas, the conflict has created an escalation in energy prices and volatility, thereby further functioning as a catalyst for rising inflation, peaking at 10.6% in October 2022¹. This subsequently led to a reduction in real income for households and weakened consumption. The European Central Bank therefore decided to react to the shocks by raising the key interest rate in July 2022, for the first time in 11 years, with subsequent increases towards 4.5% in September 2023 from where it remained stable until today². This measure was taken to bring down inflation and achieve the long-term goal of 2.0%. However, higher interest rates can contribute to slower economic growth through elevated cost of borrowing, lower corporate investments, and higher consumer savings. Vetropack was notably affected by the macroeconomic environment through three main factors. Firstly, producing glass packaging is highly energy and raw materials intensive. The surge in energy and material prices due to supply bottlenecks, an overall spike in energy demand after COVID and the Russian-Ukrainian war led to a significant escalation in production costs for Vetropack. As the second factor, Vetropack faces heightened operational risks from the Ukrainian conflict. Its Gostomel plant near Kyiv was closed in February 2022 due to severe damages from a Russian attack. Activities were gradually resumed in May 2023 on a lower capacity, production and sales level. Vetropack's strong exposure to Eastern Europe is one factor that contributed to its share price decrease compared to other public European glass packaging companies. Thirdly, the entirety of forces mentioned above caused a plunge in packaging demand in 2023 as the overall uncertainty alongside lower purchasing power dampened consumer spending. The macroeconomic outlook anticipates a positive recovery in the medium-term, with a gradual normalisation expected in the long-term. The management's assumed recovery in the medium-term aligns with the outlook for Europe given by the European Commission since growth is estimated to amount to 0.8% in the euro area in 2024 and to increase to 1.4% in 2025³. The inflation forecast also supports a rebound in economic performance with a deceleration in the euro area inflation expectations from 5.4% in 2023, to 2.5% in 2024 and 2.1% in 2025. On a country level, a decline in inflation rates is also estimated by the IMF, indicating that

Exhibit 1: Inflation rates European Union



Source: Eurostat

Exhibit 2: Fixed interest rate increase



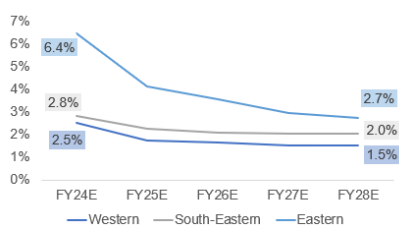
Source: ECB

¹ ECB

² ECB

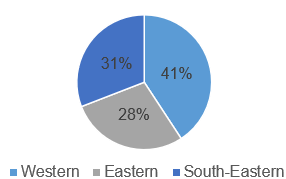
³ European Commission

Exhibit 3: Weighted average inflation rates for aggregated European regions



Source: IMF

Exhibit 4: Average FY16-FY21 aggregated European regions share of sales



Source: Company information

inflation rates will reach around 2% in Western and South-Eastern European countries by FY28 and will approach around 3% in Eastern European countries⁴. Overall, we expect an improvement in consumer sentiment and spending due to a gradual upswing in macroeconomic conditions. This development aids Vetropack to return to pre-crisis performance and is in line with expectations of other institutions and peers, believing in long-term fundamentals of the industry.

Market analysis

Vetropack does not provide a detailed breakdown of the sales contribution or production share of its product groups. However, a general overview of its products can be obtained through the company's product catalogue available on their website. The company offers a comprehensive range of bottles and jars, from 65ml to 4250ml, catering to the wine, spirits, sparkling wine, beer, soft drink, fruit juice and food industries. Vetropack sells c. 40% of its products in Western Europe, c. 30% in South-Eastern Europe and 30% in Eastern Europe. Going forward, we expect a slowly decreasing share in the Western Europe region due to higher growth and inflation expectations in the other two regions.

The following information largely stems from Verralia.⁵ Post-Covid, a robust recovery was recorded, with sales volumes approaching pre-pandemic levels in FY21. Demand for glass packaging remained high across end-markets in 2022, which allowed pass-on effects of manufacturing price increases to customers. However, in 2023, demand declined following reduced consumer consumption amid economic uncertainty and large stock reductions from customers. Therefore, glass packaging manufacturer reacted by withdrawing capacity from the market to counter the decreased demand, especially in the second half of 2023. However, some segments such as food jars, non-alcoholic beverages and sparkling wine, demonstrated greater resilience. Driven by a peak in energy and material prices, glass packaging prices increased substantially from 2021 to early 2023, followed by some moderate price reductions in the latter half. For Q1 FY24, an overall decline was reported by Vetropack's peers, however, a subsequent month-to-month rise in activity showcases a gradual stabilisation that will last throughout the year. This trend supports the outlook of considerable increases in demand in FY24 shared by peers and Vetropack's management. Focusing on the still and sparkling wine segment, France, Spain and Italy are the leading global export markets. Despite challenges in 2020, operations rebounded in 2021 due to the recovery of the hospitality sector. This positive trend extended into 2022, particularly in the high-end wine segment, although mitigated by inflation and geopolitical tensions, which continued to affect business in 2023. Glass remains the top choice due to

⁴ IMF

⁵ Verallia Universal Registration Document 2023

its positive sustainability image and high compatibility with wine-making processes. However, it faces severe competition from alternatives, especially in the low-price wine market. The spirits market grows mainly due to European exports targeting the US and Asian market. This sector is dominated by a few companies owning major global spirit brands which provides Vetropack with the opportunity to gain access to large market shares through a low number of producers. The spirits market saw a robust recovery in 2021 following pandemic-related disruptions in 2020, with notable demand increases in various countries. This growth trend persisted in 2022. However, volume declined in the latter half of 2023 due to reduced demand and significant destocking. This sector further experiences an increasing interest in upscale packaging, significantly lowering the threat of other packaging materials than glass. However, specific containers may be packaged in PET, especially within low-end market segments. The concentrated beer market is often regarded as a mass market catering the need for glass packaging solutions. However, some beer producers show motions to switch from traditional glass packaging to metal cans due to shifts in their respective sales strategy. Nevertheless, in the premium beer segment, glass remains the preferred choice of packaging. This is due to breweries trying to differentiate their products from competition. In the soft drinks market, other materials have largely substituted glass packaging. However, glass retains a strong foothold in the fruit juice segment in form of small containers preferred by premium product producers. Furthermore, glass remains well-suited for high-value niches like table waters and select sodas. Similarly, the food jar and bottle market encompass numerous niche segments, ranging from traditional jams to jarred foods, in which glass maintains consistent market presence compared to alternative materials. Within the food packaging sector, substitution primarily takes place in jars used for condiments, sauces and dairy products.

In conclusion, Vetropack seeks a good positioning in high end-markets where glass has a substantial stronghold due to its premium standing. Collaborations and customized products are some of the strategies Vetropack displays to capture customers in this segment. Low-segment markets contain undifferentiated products with a strong focus on price where volumes are of importance for glass packaging producers. The competitive pressure is estimated to be higher prompting Vetropack to concentrate its efforts on the high quality market while serving the mass-product market to capture capacities.

Competitive landscape

This section focusses solely on competitive forces in Europe, as Vetropack only conducts business in this region. The European market is perceived as a highly fragmented market with multiple small-scale companies and a few dominant, large-

scale players with international reach. The market further experienced substantial consolidation in the past, resulting in five market players accounting for almost 70% of market shares in 2021.⁶ The following will provide insights into the largest competitors, which, except for Ardagh, are listed.

The leading player in the European food and beverage glass market is **Verallia**, producing over 16bn bottles and jars per year. Furthermore, it describes itself as the second-largest producer in Latin America and third largest worldwide. Its manufacturing operations are internationally diversified throughout 34 glass production plants across 12 countries. The company records 90% of sales in Europe, despite a substantial global reach. Verallia's geographical end markets partially differ from those of Vetropack due to its operations in the UK, Spain, Portugal and Latin America. We expect Verallia to maintain its leading position due to its capacity for large-scale, standardized production in the glass packaging market.

Having sold over 8bn bottles and jars in 2023, **Vidrala** is another significant player in the European market. The company targets similar geographic end-markets as Vetropack, especially in Western Europe. Vidrala operates 8 manufacturing sites across Portugal, Spain, the UK and Italy. It further operates two sites in Brazil. Vidrala does not operate in Eastern Europe, thereby being less affected from ongoing tensions in these regions.

Zignago Vetro does not report production numbers but can be categorized as a middle-sized player due its sales of EUR 520.0m in 2023. Zignago Vetro partially differentiates from Vetropack by further supplying the cosmetics, perfumery and pharmaceutical market alongside food and beverage. Within the later, the company caters the wine, spirits, non-alcoholic beverages and food sector.

The American **Owens-Illinois Glass company (O-I)** is a manufacturer of glass containers with 36bn units being produced in 2023. Its operations are divided into the reportable Segments Europe and Americas, encompassing a total of 34 manufacturing plants across various European regions. In Europe, O-I caters the alcoholic beverages (beer, wine, and spirits), non-alcoholic beverages and food markets. Of its total sales of USD 7.1bn, 43% are generated in Europe.

The in Luxembourg headquartered **Ardagh Group** is a private manufacturer of metal and glass packaging with FY23 sales totalling over EUR 9.4bn, with glass packaging making up 49%. The company's target regions include Europe, Africa, North America and Brazil, in which it operates a total of 63 production facilities across 16 countries. The company serves the food, beverage and pharmaceutical sector in Europe.

Exhibit 5: Verallia overview



FY23 Production in units	16bn
FY23 Sales in EUR	3,903.8
Geography	Europe & Latin America

Source: Company information

Exhibit 6: Vidrala overview



FY23 Production in units	9.5bn
FY23 Sales in EUR	1,558.8
Geography	Europe & Latin America

Source: Company information

Exhibit 7: Zignago overview



FY23 Production in units	n/a
FY23 Sales in EUR	519.9
Geography	Europe

Source: Company information

Exhibit 8: O-I overview



FY23 Production in units	36bn
FY23 Sales in USD	7,105.0
Geography	Europe & Americas

Source: Company information

Exhibit 9: Ardagh overview



FY23 Production in units	n/a
FY23 Sales in USD	9,402.0
Geography	Europe & Americas

Source: Company information

⁶ Verallia Universal Registration Document 2023

In conclusion, we chose Verallia, Vidrala, and Zignago Vetro as closest peers due to their geographical focus on European markets and similar end-markets. O-I was excluded due to its US base and Ardagh due to its high metal share.

Key risks and opportunities

Risks

Vetropack is exposed to business risks with varying degrees of severity. We see the following factors most likely to have significant influence on operations.

- **Geopolitical risks**

Vetropack experienced significant impacts from the macroeconomic environment. For example, since FY22, the Ukrainian conflict exacerbates challenges due to the company's Eastern European operations. Lower margins and slow sales growth were a result of spiking energy costs and inflation combined with dampened consumer spending. These factors contributed to an overall decline in packaging demand in 2023 showing that adverse economic conditions can severely affect companies within the glass packaging industry.

- **Regulation**

Vetropack operates within a highly regulated environment across various countries, necessitating compliance with laws on an international, national and local level. It is subject to numerous consumer health, hygiene, environmental and further regulations where failure to adhere can result in legal consequences such as fines or penalties, as well as damage to reputation and loss of trust among stakeholders. These consequences can negatively affect financial results, with customers possibly redirecting their purchases towards competitors.

- **Supply chain**

Vetropack's business model depends heavily on raw materials from third-party suppliers as input for the production process and can be significantly impacted by distortions in the supply chain. Shortages and rising prices of cullet, quartz sand, limestone and soda ash may result in price hikes that can adversely impact profitability. Furthermore, companies are aiming to increase the share of cullet to lower energy consumption while obtaining high-quality recycled glass can pose a challenge. Collection rates vary throughout countries due to lack of public awareness or suitable infrastructure.

- **Supply and demand balance**

Vetropack operates in various geographic markets with its nine production plants across eight different countries. A careful long-term analysis of demand and

capacity is therefore essential, as high transportation costs for glass products limit the ability of one plant to readily accommodate for elevated demand or sudden drops in another. The same issue prevents a fast and easy transfer of excess capacity between nations, resulting in lost sales shares.

- Exchange rates

Vetropack conducts business in several European markets where the Euro is the main currency. The company is required to convert balance sheet, income statement and cash flow figures into Swiss Francs for its consolidated financial statements at applicable exchange rates. Only exchange rate variances resulting from converting transactions and balance sheet items impact net income. Therefore, the company can incur a profit reduction from exchange rate volatility.

Opportunities

- Organic growth in Europe

In December 2020, Vetropack acquired a glassworks company in Chişinău, Moldova to enhance their market position in Central and Eastern Europe. At the time, the Moldavian company employed around 450 people and generated sales of approx. CHF 40m. There have been no further acquisitions since FY16 and none are planned for the unforeseen future. As mentioned before, market consolidation is common in the sector, to grow and strengthen market position. Since 2016 each of its peers acquired companies, Vidrala (1x UK)⁷, Verallia (1x UK⁸, 1x Italy⁹) and Zignago Vetro (1x Czech Republic, 1x Poland).¹⁰ To enhance its competitive position, Vetropack could consider pursuing further acquisitions in Europe, aligning its strategy with its peers. We see particular promising opportunities in Eastern Europe, a region where Vetropack already dominates the market and expanded to in its past.¹¹

- Inorganic growth overseas

Currently, Vetropack's primary focus lies on Europe. Therefore, we see further potential in intercontinental expansion through inorganic growth, into e.g., the Americas, which would lead to profit from growth markets, compared to Europe demonstrating characteristics of a mature market with traits of lower growth rates and intense competition among established players. Thus, Vetropack stands to benefit from diversifying its geographical reach, as successfully shown by Vidrala having acquired Vidroporto in Brazil. The strategic rationale of the deal is to broaden Vidrala's geographical presence and tap into the expanding Brazilian

⁷ Vidrala Homepage

⁸ Verallia Homepage

⁹ Verallia Homepage

¹⁰ Zignago Vetro Homepage

¹¹ Vetropack Homepage

market, fostering long-term growth, diversifying risk and revenue sources.¹²

- Echovai solution

As described in the trends section, companies are prioritizing production enhancements to reduce packaging weight, saving resources and cutting CO² emissions. Vetropack has introduced the first returnable bottle made of tempered lightweight glass after 10 years of development. The company utilized an innovative thermal process of heating and cooling-up the bottles. For the 0.33-liter returnable bottles specifically, adoption of the Echovai solution of 210 grams yields a weight reduction of approximately one-third compared to conventional bottles. Moreover, the decreased height of the lightweight glass product allows to stack one more layer of bottles, thereby substantially impacting logistics. This adjustment has led to a notable reduction in CO² emissions per bottle, amounting to a quarter of that by a standard bottle. The bottles were tested as part of a pilot project and the success of the operation will lead to further adoption at more plants to address the raising demand for its Echovai solution.

Financial analysis

Analysis of historical financials

- Top-line growth

Exhibit 10: Revenue development

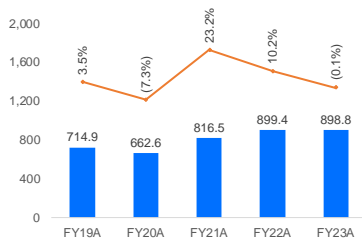
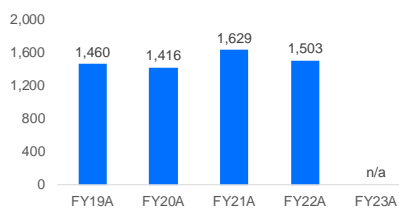


Exhibit 11: Production volume [1,000 metric tons]

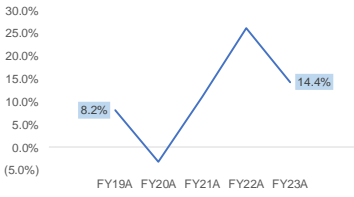


Our historic and forecast analyses include adjustments for outliers/crisis effects within historical averages used. For clarity and to maintain a smooth reading flow, we refer to these as "historical averages" and do not provide each calculation.

Vetropack demonstrated robust growth in recent years, rising from CHF 601.7m in FY16 to CHF 899.4m in FY22 (CAGR of 6.9%), before growth plateaued in FY23. This development was marked by several pivotal events that are still influencing the company today. FY21 witnessed sales surging from the successful integration and scale-up of operations at the newly acquired Moldova plant alongside a significant rebound from preceding COVID-19 effects, both enhancing demand and production (+15.0%). The sales increase was further driven by a partial pass-through of elevated energy expenses (+61.6%). The situation deteriorated further in FY22 due to the Russian-Ukrainian war, which severely impacted operations, leading to a 7.7% decrease in production and fewer overall demand. The production decline was hereby heavily influenced by a halt in production with subsequent workforce reduction in Ukraine. Additionally, the war contributed its share to a further rise in energy expenses (+75.5%), fuelling further sales price increases. FY23 was marked by increased consumer restraints in the end market,

¹² Vidrala Homepage

Exhibit 12: Average peers sales growth



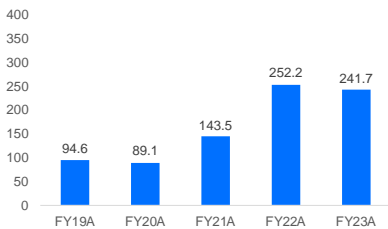
Source: Competitor analysis

Exhibit 13: Personnel expenses allocation

Personnel expenses COGS share	FY23A
Vidrala	53.0%
Zignago Vetro	58.1%
Verallia	n/a
Average	55.5%

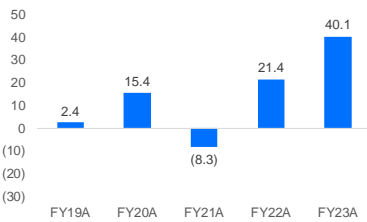
Source: Competitor analysis, Economic Research Institute

Exhibit 14: Energy expenses



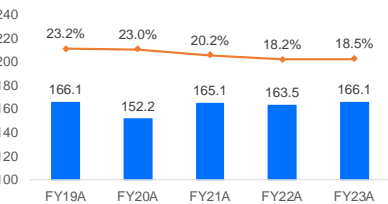
Source: Company information

Exhibit 15: IS effect change in inventory



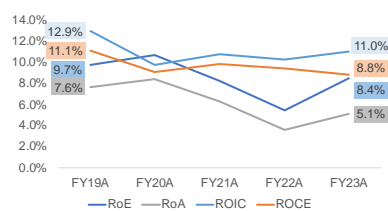
Source: Company information

Exhibit 16 EBITDA [% of Net sales]



Source: Company information

Exhibit 17: Return ratios



Source: Own analysis

adversely affecting the demand for Vetropack's products and leading to a stagnation in sales. However, this downturn was mitigated by subsequent price adjustments from a delay in passing on escalated energy costs to customers. Vetropack's peers show similar sales developments, except for FY23, where they all increased their sales figures in by a double-digit growth rate, suggesting Vetropack to have significantly more problems to cope with the demand decline.

Profitability

The profitability of glass packaging companies is particularly influenced by three main cost drivers: material-, energy-, and personnel expenses, which are all reflected in COGS. In our analyses, it is assumed that 55.5% of personnel expenses can be allocated to COGS based on competitor analysis. From FY20 onwards, Vetropack's material expenses severely increased in nominal value by an annual average of 9.7% due to supply bottlenecks, increase in production costs and increasing inflation. An even more drastic picture can be drawn for energy expenses which increased by an annual average of 44.2% due to an overall recovery in energy demand after COVID-19, supply bottlenecks and the Russian-Ukrainian war. Personnel expenses were influenced by the layoff of over 400 workers at the Ukrainian plant in FY22 before 139 of them were rehired with the reopening of the plant. An even more drastic increase in COGS was cushioned by Vetropack, through the build-up of inventories. This effect should be viewed with caution, as this equates unsold goods. Altogether, Vetropack experienced a strong surge in COGS from 57.8% of net sales in FY20 to 65.1% in FY23, which is in line with the average peer development (55.7% to 60.7%). EBITDA dropped from 23.0% of net sales in FY20 to 18.5% in FY23. This impact was once again mitigated by substantial income from subsidies (CHF 9.5m in FY22 and CHF 6.2m in FY23) and should be viewed with caution due to its extraordinary nature. Compared to its peers, Vetropack's elevated base cost structure is evident in its consistently lower EBITDA margins. However, while in FY19, Vetropack's margin was still close to its peers (23.2% vs. 26.5%), it has gradually diverged, resulting in a significantly lower margin in FY23 (18.5% vs. 30.1%), reflecting less efficient cost management over the years.

Return analysis

Vetropack reports a significant increase in net income (+55.5%) in FY23. However, this must be seen with caution due to inventory and subsidy effects, limiting the validity of the reversal effects, seen in return on equity (RoE), return on assets (RoA) and return on invested capital (ROIC). Compared to its peers, Vetropack lags significantly behind their historical average RoE of 23.3%, emphasizing Vetropack's current operational inefficiencies. It further showcases the omission of positive leverage effects on equity return for Vetropack. That Vetropack has lost

its operative touch with its peers, becomes further evident when assessing ROA, as in FY20 Vetropack was still on par with its peers before deteriorating to 5.1% in FY23 (12.1% historic peer average). Furthermore, Vetropack shows a poorer utilisation of capital compared to its peers, visible when assessing ROIC (historic averages of 10.3% vs. 23.5%) and ROCE (historic averages of 9.7% vs. 13.4%).

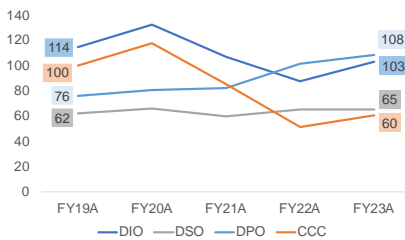
- Working capital management

To evaluate Vetropack’s operational efficiency, we analysed its working capital through the cash conversion cycle (CCC). In 2023, Vetropack’s CCC was 60 days, which is notably shorter than historical figures and competitor averages, indicating improved management of working capital. However, it is crucial to consider the nominal changes since the ratios are affected by a significant increase in COGS. Accounts receivables exhibit minimal fluctuations in both nominal value and days sales outstanding (DSO), suggesting effective receivables management from long-term customer relationships. Inventories showcase a rather stable nominal development until FY23 where lower than expected demand resulted in significant build-up of finished goods. The historical decrease in DIO is therefore negligible. The rising inventory levels highlight the management’s observed demand decline and potential cuts in production capacity. Nonetheless, Vetropack consistently showed strategic and effective inventory management, proving resilient in crises, reinforcing management’s assertion to be able to efficiently adjust its production capacities and lines to meet market demands. Vetropack’s accounts payables have seen a notable rise in both days payable outstanding (DPO) and nominal values over the past three years, mainly due to increased efforts to enhance flexibility and liquidity. As Vetropack still remains below the peer average of 112 days, we see this development as a positive outcome of its long-term relationships with suppliers who accommodate Vetropack’s need for flexibility.

- Liquidity, cash flow and solvency

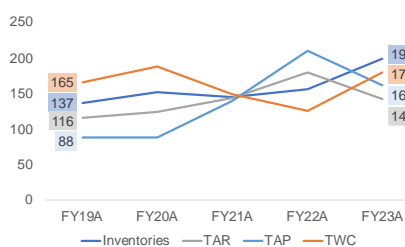
To assess Vetropack’s short-term financial health, we analysed three key liquidity ratios. The current ratio, although declining in recent years, continued to significantly surpass both, the 1.0x threshold¹³ and the peer average of 1.2x, indicating robust short-term liquidity to meet financial obligations. Additionally, Vetropack's quick ratio of 1.0x, demonstrates the company’s solid capacities to cover short-term liabilities without relying on inventory liquidation, again outperforming the peer average. The cash ratio, reflecting the most conservative liquidity measure, was recorded at 0.4x, doubling the peer average of 0.2x. Despite a decline in these ratios, Vetropack consistently maintained levels above critical thresholds, underlining its solid liquidity position and cash management. These

Exhibit 18: Trade working capital [CCC]



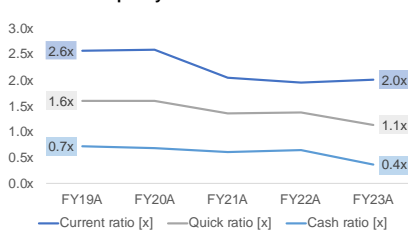
Source: Company information

Exhibit 19: Trade working capital [nominal]



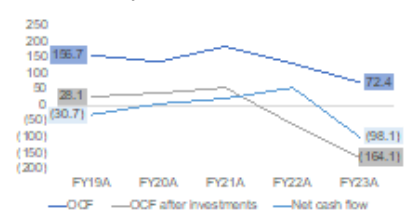
Source: Company information

Exhibit 20: Liquidity ratios



Source: Company information

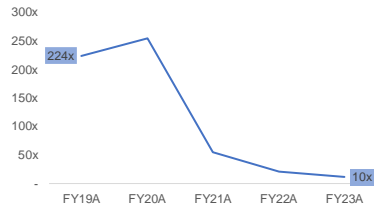
Exhibit 21: Reported cash flow



Source: Company information

¹³ Investopedia

Exhibit 22: Interest coverage ratio



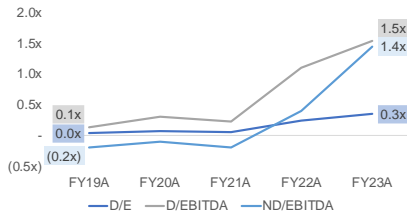
Source: Company information

metrics are bolstered by strong operating cash flows prior to investments, affirming the company's operational cash generation strength. Nevertheless, it must be noted that the Company reported negative free cash flows to the firm in the last two years, primarily due to high CAPEX costs related to the construction of the Boffalore plant. Despite rising debt levels, Vetropack continued to demonstrate a strong interest coverage ratio, mitigating potential insolvency risks and underscoring the company's prudent financial management and resilience amidst heightened liquidity demands.

Capital structure

Historically, Vetropack has maintained a conservative debt approach, often operating with negative net debt, prioritizing internal funding for growth, as evidenced by low historical average ratios of debt-to-equity (7.6%), total debt-to-EBITDA (0.4x), and net debt-to-EBITDA (0.0x). However, there was a notable shift in the capital structure in FY22 to finance the Boffalore plant. Consequently, Vetropack's financial debt rose sharply from CHF 37.5m in FY21 to CHF 255.7m in FY23, approaching competitors (0.7x D/E, 1.4x D/EBITDA, 1.1x ND/EBITDA).

Exhibit 23: Debt ratios

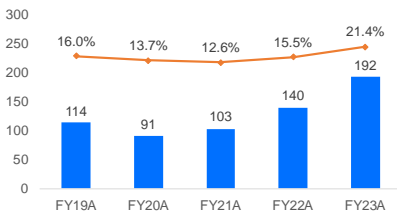


Source: Company information

CAPEX and asset development

Vetropack displays an average historical CAPEX level of 14.5% of net sales, which can be separated in maintenance CAPEX (historical average of 10.9%) and expansion CAPEX (historical average of 3.6%). The recent years' rise can be attributed to the construction of the Boffalore plant. Since FY16, the balance sheet grew at a CAGR of 6.0% and therefore in line with Vetropack's net sales (5.9% CAGR). Although this development is strongly driven by price increases and constructions, it shows that Vetropack is executing strategic investments to remain competitive in the long-term and targets sustainable growth.

Exhibit 24: CAPEX [% of Net sales]



Source: Company information

Forecast implications and management guidance

The historic assessment combined with recent management statements provide several main implications for Vetropack going forward¹⁴:

1. Vetropack will continue to face elevated but gradually declining raw material and energy costs due to a delay in purchase price transmission.
2. Vetropack will focus on being efficient through proactive management of capacities and costs reductions. This incorporates delaying the resumption of production lines in Ukraine, Czech Republic and Italy until needed. Management further anticipates declining top-line growth for FY24 alongside a rebound in sales volumes, especially in the second half of the year. The sales

¹⁴ Vetropack AR23

decline arises from price erosions due to overcapacity in the market. The volume rebound necessitates a gradual increase in production capacity and can be achieved with strong working capital management, long-term relationships and the ability to relatively flexibly adjust production line needs.

3. Vetropack will suspend significant CAPEX investments for an undefined period. However, the company will continue to invest in their plants to boost innovation strengths. This implies, amongst other, retrofitting plants by e.g., deploying particularly efficient glass-blowing machines.
4. Vetropack's management remains committed to a conservative debt strategy, focusing on having a largely self-financed sustainable growth and financial stability as their top priority.
5. Vetropack is currently facing three significant events that could profoundly affect the company's future. Firstly, a potential resolution of the Russian-Ukrainian war that could lead to an economic recovery in Ukraine and its neighboring markets. Secondly, a potential shutdown of the St-Prex production facility in Switzerland due to expected ongoing unprofitability. As of May 6th, 2024 this matter is under consultation, with employee representatives having submitted alternative proposals to closure for management's consideration. Given the high degree of uncertainty and the absence of detailed data, these scenarios are not included in the base case forecast and cannot be separately considered in a scenario analysis. However, they are of importance as both would yield positive effects on the Company's performance and therefore valuation. Thirdly, Vetropack has readied its innovative Echovai product for market and is scaling up production across additional plants. This effect is considered in the base case. A potential market disruption of Echovai beyond our assumptions for the base case scenario is being considered in a scenario analysis.

Valuation

Relative valuation

- Comparable transactions valuation

After analyzing a large data set of packaging transactions, we selected suitable deals in the glass packaging industry from the last 5 years by removing financial outliers, geographic location and minority deals from our long list. All selected transactions are therefore majority shareholding acquisitions. The average size is smaller than the market value of Vetropack which can be partially explained by the notion that mostly smaller companies get acquired by large for consolidation reasons. The median EV/EBITDA multiple is considered the most reliable indicator

of a company's value, leading us to determine a share price of CHF 28.35 after adding the non-core value and subtracting net debt from our EV of CHF 828.1m. The notably lower share price is attributed to the projected decrease in EBITDA for 2024, reflecting expected drops in sales and profitability.

Date	Target	Industry	Acquirer	EV (CHFm)	EV/EBITDA	EV/Sales
Feb-24	Vidrala Italian subsidiary	Glass packaging	Verallia	221	7.0x	1.8x
Dec-23	Vidroporto	Glass packaging	Vidrala	373	6.9x	2.4x
Nov-22	Allied Glass Containers	Glass packaging	Verallia	372	7.0x	2.1x
Nov-21	Consol	Glass packaging	Ardagh Group	581	6.6x	1.1x
Median					6.9x	1.9x

Source: Mergermarket, Capital IQ, Own analysis

▪ Comparable companies valuation

We analyzed different groups of companies to find suitable peers reflective of Vetropack's business model and geographical location. There is a multitude of publicly traded companies in the general packaging industry, however, we decided to target peers focusing on glass packaging since they share the most similarities in terms of business operations and risks. Furthermore, we excluded companies focusing on industries not covered by Vetropack as well as companies having large shares of different packaging products. Lastly, we excluded companies with large business operations outside of Europe. As a result, we obtained three peers (as mentioned earlier). We took FY24 EV/Sales, EV/EBITDA and EV/EBIT multiples into account as P/E multiples do not fit well due to limited comparability. The EV of FY24 was computed with the median EV/EBITDA multiple of 7.4x, arriving at the implied share price of CHF 31.28 after adding the non-core value and deducting net debt.

Company	Share price (CHF)	Market Cap (CHFm)	EV (CHFm)	FY24E EV/Sales	FY24E EV/EBITDA	FY24E EV/EBIT
Vidrala	101	3,250	3,731	2.4x	8.9x	11.8x
Verallia	36	4,316	5,629	1.6x	5.7x	8.6x
Zignato Vetrc	12	1,100	1,265	2.0x	7.4x	12.5x
Median				1.98x	7.42x	11.79x

Source: Bloomberg

Discount discussion

The purchase of Vetropack's listed Class A shares does not give investors the possibility to gain control or participation rights in the company since the Cornaz shareholder group holds 71.6% of voting rights. A similar case could be seen in a recent example of Paramount. The first offer by Skydance included a USD 2bn payout to the family holding that controls Paramount through c. 77% of voting class A shares and a following all-stock acquisition of Paramount with a value of around USD 4-5bn with no clear benefit for common shareholders¹⁵. The proposal was then amended with a USD 3bn deal sweetener consisting of share buybacks and cash for debt. The second offer was given by Sony and Apollo with a USD 26bn cash offer and better terms for common shareholders. This example illustrates how

¹⁵ Fast Company

common shareholders without voting rights could be disadvantaged in deal negotiations. Further potential threats include majority shareholder friendly dividend politics, abuse of power and decisions that are not in the best interests of the company. Therefore, we believe that a discount of 10% to adjust for these possibilities is appropriate to apply.

ESG Analysis

Environmental, Social and Governmental (ESG) considerations are increasingly gaining prominence in today's business landscape. However, glass packaging manufacturers consume significant amounts of energy and raw materials, diminishing the sustainability of their operations. We analyzed Vetropack's ESG efforts and compared them to its main peers to obtain a relevant benchmarking. The company has ambitious goals, such as a 50% reduction of scope 1 & 2 emissions by 2032 compared to 2021 and a usage of 100% renewable energy by 2032. However, upon examining the current situation, it is evident that the company is notably performing worse than peers in 2023. Vetropack holds the lowest rating from the Carbon Disclosure project in the climate change category and from Sustainalytics. Closely analyzing selected metrics provides greater clarity regarding the ratings. In terms of environmental indicators, Vetropack emitted more scope 1 & 2 greenhouse gas emissions in tons per million sales, consumed more energy in megawatt hours per million sales and produced more waste in metric ton per million sales than all selected competitors in 2023. Vetropack held a position ahead of last only in terms of water consumption, measured in cubic meters per metric ton of glass produced. From a social perspective, Vetropack indicates the second-highest proportion of women in its workforce, yet it has the lowest representation of women on its board of directors. Regarding governance, the company adheres to compliance and ethics standards. However, its aforementioned share structure presents a significant drawback. Overall, the table reveals a decrease in Vetropack's environmental sustainability in 2023 compared to 2022, suggesting that the company will need to make efforts to regain its previous level.

FY23

Company	CDP - climate rating	Sustainalytics rating	1 & 2 greenhouse gas t / 1m sales	Energy Mwh/ 1m sales	Waste in t / 1m sales	Water in m3 per metric ton of glass	% of women in headcount	% of women on Board of directors
Vidrala	B	18	644	2,686	16	0.45	15%	36%
Verallia	A-	15	686	2,865	17	0.56	19%	40%
Zignato Vetro	A-	12	607	2,329	9	0.93	35%	42%
Vetropack	C	19	726	3,056	91	0.87	24%	25%

Source: Company information

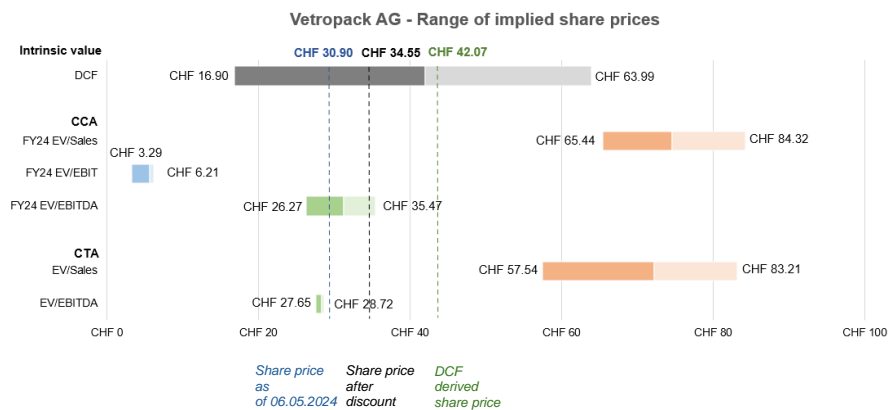
FY22

Company	CDP - climate rating	Sustainalytics rating	1 & 2 greenhouse gas t / 1m sales	Energy Mwh/ 1m sales	Waste in t / 1m sales	Water in m3 per metric ton of glass	% of women in headcount	% of women on Board of directors
Vidrala	n/a	n/a	773	3,106	13	0.36	14%	36%
Verallia	n/a	n/a	818	3,180	23	0.47	18%	40%
Zignato Vetro	n/a	n/a	706	2,502	10	1.23	29%	42%
Vetropack	n/a	n/a	679	2,850	n/a	0.94	24%	13%

Source: Company information

Final recommendation

Vetropack was facing strong headwinds in recent years as macroeconomic factors led to a spike in energy prices, dampened consumer demand and a downturn in Eastern Europe operations. Nevertheless, Vetropack possesses the fundamental strengths, cost adjustment abilities and innovative DNA necessary to regain its previous performance levels and advance further. This development is supported by sustainable product solutions and ongoing process efficiencies. Based on our analysis, the DCF implies a share price CHF 42.07, comparable company valuation of CHF 31.28 and comparable transactions analysis of CHF 28.35. As we provide our recommendation of Vetropack for 31.12.2024, we see a certain overweight valuation of future developments in our DCF analysis, while the relative valuation overweighs the expected transitional year. Therefore, we applied a weighted average with 70% applied to DCF, 15% to comparable analysis and 15% to transaction analysis. We further applied a discount of 10% due to previously mentioned control issues, resulting in a final valuation of CHF 34.55. This represents a 11.8% increase from the May 6th, 2024 share price of CHF 30.90. Given the stock's apparent current undervaluation and an anticipated total return (including expected capital gains (CHF 1.0) and dividend yield (3.2%)) of 15.1% (rounding error) we assign a **BUY** rating to Vetropack.



VETROPACK HOLDING AG

PACKAGING

M. ANDJELKOVIC, M. KIENZLE,

COMPANY REPORT

17 MAY 2024

53025/53634@novasbe.pt

Vetropack Equity Research Report

Navigating through Crises

- We recommend to **BUY** Vetropack Holding AG due to a projected **capital gain of 15.1%** over a 12-month period. This is based on an expected **target share price of CHF 34.55** (as of 31.12.2024) and a **confirmed dividend of CHF 1.00**.

- Vetropack is an **established glass packaging producer** that faced **multiple severe crises** in recent years, heavily compromising its operations and performance. The Russian-Ukrainian war alone led to a **spike in costs** (heavily increased energy prices), **operational restrictions** (severe damages of the Ukrainian plant) and a **sharp decline in demand** (inflation-induced restraints in end-market affecting demand for glass packaging).

- Our analysis projects **favourable economic and operational developments**, resulting in **rising market demand, directly and indirectly steered cost improvements** and an overall **improved operational flexibility** to respond to dynamic market conditions. We expect Vetropack to capitalize on their market position as an **innovative company**, in terms of products and production processes, while placing highly **valuing quality and relationships**.

Company description

Vetropack Holding AG (“Vetropack”) is a glass packaging manufacturer for the European food and beverage market, headquartered in Bülach, Switzerland. The company is primarily in the hands of the founder’s family and offers a broad portfolio of over 2,500 custom and standardized products for the mass and premium market. The Company operates nine production sites in Europe with over 3,800 employees.

Recommendation: BUY

Price Target FY24: CHF 34.55

Price (as of 06.05.2024) CHF 30.90

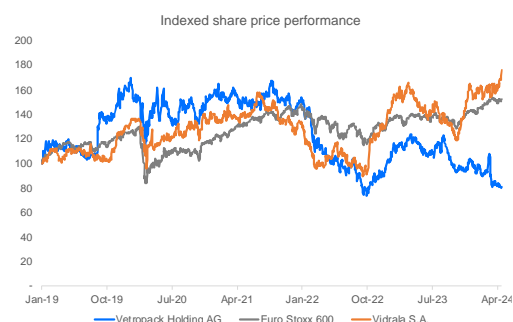
Reuters: VETN.S, Bloomberg: VETN:SW

52-week range (CHF) 30.45-48.00

Market Cap (CHFm) 596.5

Outstanding Shares (m) 19.824

Source: Bloomberg



Source: Bloomberg

(Values in CHFm)	2023A	2024E	2025F
Net sales	898.8	880.8	912.7
Core Gross profit	313.8	270.3	320.6
Core EBITDA	154.6	114.7	161.4
Core EBIT	80.6	29.1	72.9
Core result	64.5	23.3	58.4
CAPEX	192.0	85.5	108.7
Core FCF	(162.7)	(0.1)	30.6

Source: Company information, own analysis

THIS REPORT WAS PREPARED EXCLUSIVELY FOR ACADEMIC PURPOSES BY [INSER STUDENT’S NAME], A MASTER IN FINANCE STUDENT OF THE NOVA SCHOOL OF BUSINESS AND ECONOMICS. THE REPORT WAS SUPERVISED BY A NOVA SBE FACULTY MEMBER, ACTING IN A MERE ACADEMIC CAPACITY, WHO REVIEWED THE VALUATION METHODOLOGY AND THE FINANCIAL MODEL. (PLEASE REFER TO THE DISCLOSURES AND DISCLAIMERS AT END OF THE DOCUMENT)

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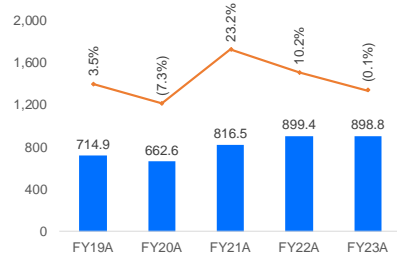
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Company overview

Company description

Vetropack Holding AG (“Vetropack”) is a glass packaging manufacturer for the European food and beverage market, headquartered in Bülach, Switzerland. It offers a broad portfolio of >2,500 products, selling custom designed and standardized bottles and jars for the high-volume wine, beer, soft drink and food markets as well as to more premium segments, like spirits and sparkling wine. Since its founding by Henri Cornaz in 1911, Vetropack evolved from a regional supplier in Switzerland to a significant force within the European landscape. Starting with its first major acquisition in 1959 to become the Swiss market leader, Vetropack continued to branch out to Austria in 1986, the Czech Republic in 1991 and further countries in Eastern and Southern Europe from 1996 onwards. It operates 9 production plants in 8 countries with a strong focus on Central and Eastern Europe, including Italy, Switzerland, Austria, Croatia, Czech Republic, Slovakia, Ukraine and Moldova. Due to a stated 400km delivery radius for its products, it can be inferred that its sales markets must be producing and adjacent countries. However, an exact list of countries in which the company operates is not disclosed for confidential reasons. As of FY23, Vetropack realized revenues of CHF 899.8m and employed around 3,770 professionals. For Vetropack, glass constitutes the cornerstone of packaging due to its high reusability and environmentally friendly characteristics. Vetropack’s sales primarily arise from its manufacturing-heavy business. The production process broken down begins with batching raw materials and cullet, which are then melted in a furnace to form molten glass before finally being shaped into containers or bottles. Lastly, the finished glass packaging undergoes quality control checks before being packaged and distributed to customers.

Exhibit 1: Revenue development



Source: Company information

Ownership, organisational and share structure

Vetropack Holding AG exhibits a dual share structure, comprising 13.774m Class A shares (publicly listed on the Swiss Stock Exchange) and 30.250m Class B shares (unlisted and entirely kept by the Cornaz Holding AG, the founder’s family). Each share holds one voting right. However, due to further possession of Class A shares, the Cornaz Holding AG currently possesses 71.6% of voting rights, resulting in an unbreakable control over the company. Alongside, the Holding keeps the rights to appoint the Chairman and Vice-Chairman. According

Exhibit 2: Share overview

Share class	Listed	Amount	Nominal value
Class A shares	yes (SIX)	13,774,000	CHF 1
Class B shares	no	30,250,000	CHF 0.2

Source: Company information

to latest filings, institutional investors hold 35% of class A shares¹. Both shares receive dividends, however, these are adjusted based on their nominal value of CHF 1.0 (Class A) and CHF 0.2 (Class B). This is intended as compensation for having basically no influence on the company as a public shareholder. This further results in 19.284m shares being considered when computing market capitalization (total number of shares multiplied by its nominal value). However, since the beginning of the year, the stock price has undergone a downturn resulting in a severe decline in market valuation (CHF -162.6m). The Board of Directors (BD) is the central figure in the company’s organization, formulating the corporate strategy and assessing yearly performance. The eight members of the BD are elected annually by the Annual General Assembly of Shareholders. An option for re-election exists. The newest addition to the BD is the CEO of the Huber + Suhner group Urs Ryffel who was elected in 2024. The Management Board operates within the framework provided by the BD.

Industry overview

Macroeconomic analysis

The macroeconomic environment significantly impacts Vetropack by imposing challenges within their business framework. For instance, the since 2022 ongoing Russian-Ukrainian war led to far-reaching geopolitical ramifications in Europe. With Russia as the main European supplier of natural gas, the conflict has created an escalation in energy prices and volatility, thereby further functioning as a catalyst for rising inflation, peaking at 10.6% in October 2022². This subsequently led to a reduction in real income for households and weakened consumption. The European Central Bank therefore decided to react to the shocks by raising the key interest rate in July 2022, for the first time in 11 years, with subsequent increases towards 4.5% in September 2023 from where it remained stable until today³. This measure was taken to bring down inflation and achieve the long-term goal of 2.0%. However, higher interest rates can contribute to slower economic growth through elevated cost of borrowing, lower corporate investments, and higher consumer savings. Vetropack was notably affected by the macroeconomic environment through three main factors. Firstly, producing glass packaging is highly energy and raw materials intensive. The surge in energy and material prices due to supply bottlenecks, an overall spike in energy demand after COVID and the Russian-Ukrainian war led to a significant escalation in production costs for Vetropack. As the second factor, Vetropack

Exhibit 3: Inflation rates European Union



Source: Eurostat

Exhibit 4: Fixed interest rate increase



Source: ECB

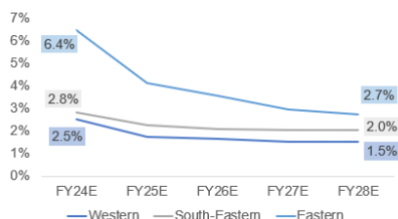
¹ Retrieved from Bloomberg

² ECB

³ ECB

faces heightened operational risks from the Ukrainian conflict. Its Gostomel plant near Kyiv was closed in February 2022 due to severe damages from a Russian attack. Activities were gradually resumed in May 2023 on a lower capacity, production and sales level. Vetropack’s strong exposure to Eastern Europe is one factor that contributed to its share price decrease compared to other public European glass packaging companies. Thirdly, the entirety of forces mentioned above caused a plunge in packaging demand in 2023 as the overall uncertainty alongside lower purchasing power dampened consumer spending. The macroeconomic outlook anticipates a positive recovery in the medium-term, with a gradual normalisation expected in the long-term. The management’s assumed recovery in the medium-term aligns with the outlook for Europe given by the European Commission since growth is estimated to amount to 0.8% in the euro area in 2024 and to increase to 1.4% in 2025⁴. The inflation forecast also supports a rebound in economic performance with a deceleration in the euro area inflation expectations from 5.4% in 2023, to 2.5% in 2024 and 2.1% in 2025. On a country level, a decline in inflation rates is also estimated by the IMF, indicating that inflation rates will reach around 2% in Western and South-Eastern European countries by FY28 and will approach around 3% in Eastern European countries⁵. Overall, we expect an improvement in consumer sentiment and spending due to a gradual upswing in macroeconomic conditions. This development aids Vetropack to return to pre-crisis performance and is in line with expectations of other institutions and peers, believing in long-term fundamentals of the industry.

Exhibit 5: Weighted average inflation rates for aggregated European regions

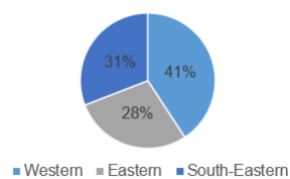


Source: IMF

Market analysis

Vetropack does not provide a detailed breakdown of the sales contribution or production share of its product groups. However, a general overview of its products can be obtained through the company’s product catalogue available on their website. The company offers a comprehensive range of bottles and jars, from 65ml to 4250ml, catering to the wine, spirits, sparkling wine, beer, soft drink, fruit juice and food industries. Vetropack sells c. 40% of its products in Western Europe, c. 30% in South-Eastern Europe and 30% in Eastern Europe. Going forward, we expect a slowly decreasing share in the Western Europe region due to higher growth and inflation expectations in the other two regions.

Exhibit 6: Average FY16-FY21 aggregated European regions share of sales



Source: Company information

The following information largely stems from Verralia.⁶ Post-Covid, a robust recovery was recorded, with sales volumes approaching pre-pandemic levels in FY21. Demand for glass packaging remained high across end-markets in 2022, which allowed pass-on effects of manufacturing price increases to customers.

⁴ European Commission

⁵ IMF

⁶ Verallia Universal Registration Document 2023

However, in 2023, demand declined following reduced consumer consumption amid economic uncertainty and large stock reductions from customers. Therefore, glass packaging manufacturer reacted by withdrawing capacity from the market to counter the decreased demand, especially in the second half of 2023. However, some segments such as food jars, non-alcoholic beverages and sparkling wine, demonstrated greater resilience. Driven by a peak in energy and material prices, glass packaging prices increased substantially from 2021 to early 2023, followed by some moderate price reductions in the latter half. For Q1 FY24, an overall decline was reported by Vetropack’s peers, however, a subsequent month-to-month rise in activity showcases a gradual stabilisation that will last throughout the year. This trend supports the outlook of considerable increases in demand in FY24 shared by peers and Vetropack’s management. Focusing on the still and sparkling wine segment, France, Spain and Italy are the leading global export markets. Despite challenges in 2020, operations rebounded in 2021 due to the recovery of the hospitality sector. This positive trend extended into 2022, particularly in the high-end wine segment, although mitigated by inflation and geopolitical tensions, which continued to affect business in 2023. Glass remains the top choice due to its positive sustainability image and high compatibility with wine-making processes. However, it faces severe competition from alternatives, especially in the low-price wine market. The spirits market grows mainly due to European exports targeting the US and Asian market. This sector is dominated by a few companies owning major global spirit brands which provides Vetropack with the opportunity to gain access to large market shares through a low number of producers. The spirits market saw a robust recovery in 2021 following pandemic-related disruptions in 2020, with notable demand increases in various countries. This growth trend persisted in 2022. However, volume declined in the latter half of 2023 due to reduced demand and significant destocking. This sector further experiences an increasing interest in upscale packaging, significantly lowering the threat of other packaging materials than glass. However, specific containers may be packaged in PET, especially within low-end market segments. The concentrated beer market is often regarded as a mass market catering the need for glass packaging solutions. However, some beer producers show motions to switch from traditional glass packaging to metal cans due to shifts in their respective sales strategy. Nevertheless, in the premium beer segment, glass remains the preferred choice of packaging. This is due to breweries trying to differentiate their products from competition. In the soft drinks market, other materials have largely substituted glass packaging. However, glass retains a strong foothold in the fruit juice segment in form of small containers preferred by premium product producers. Furthermore, glass remains well-suited for high-value niches like table waters and select sodas. Similarly, the food jar

and bottle market encompass numerous niche segments, ranging from traditional jams to jarred foods, in which glass maintains consistent market presence compared to alternative materials. Within the food packaging sector, substitution primarily takes place in jars used for condiments, sauces and dairy products.

In conclusion, Vetropack seeks a good positioning in high end-markets where glass has a substantial stronghold due to its premium standing. Collaborations and customized products are some of the strategies Vetropack displays to capture customers in this segment. Low-segment markets contain undifferentiated products with a strong focus on price where volumes are of importance for glass packaging producers. The competitive pressure is estimated to be higher prompting Vetropack to concentrate its efforts on the high quality market while serving the mass-product market to capture capacities.

Competitive landscape

This section focusses solely on competitive forces in Europe, as Vetropack only conducts business in this region. The European market is perceived as a highly fragmented market with multiple small-scale companies and a few dominant, large-scale players with international reach. The market further experienced substantial consolidation in the past, resulting in five market players accounting for almost 70% of market shares in 2021.⁷ The following will provide insights into the largest competitors, which, except for Ardagh, are listed.

The leading player in the European food and beverage glass market is Verallia, producing over 16bn bottles and jars per year. Furthermore, it describes itself as the second-largest producer in Latin America and third largest worldwide. Its manufacturing operations are internationally diversified throughout 34 glass production plants across 12 countries. The company records 90% of sales in Europe, despite a substantial global reach. Verallia’s geographical end markets partially differ from those of Vetropack due to its operations in the UK, Spain, Portugal and Latin America. We expect Verallia to maintain its leading position due to its capacity for large-scale, standardized production in the glass packaging market.

Having sold over 8bn bottles and jars in 2023, Vidrala is another significant player in the European market. The company targets similar geographic end-markets as Vetropack, especially in Western Europe. Vidrala operates 8 manufacturing sites across Portugal, Spain, the UK and Italy. It further operates two sites in Brazil. Vidrala does not operate in Eastern Europe, thereby being less affected from ongoing tensions in these regions.

Exhibit 7: Verallia overview



FY23 Production in units	16bn
FY23 Sales in EUR	3,903.8
Geography	Europe & Latin America

Source: Company information

Exhibit 8: Vidrala overview




FY23 Production in units	9.5bn
FY23 Sales in EUR	1,558.8
Geography	Europe & Latin America

Source: Company information

⁷ Verallia Universal Registration Document 2023


Exhibit 9: Zignago overview

ZIGNAGO VETRO 	
FY23 Production in units	n/a
FY23 Sales in EUR	519.9
Geography	Europe

Source: Company information

Zignago Vetro does not report production numbers but can be categorized as a middle-sized player due its sales of EUR 520.0m in 2023. Zignago Vetro partially differentiates from Vetropack by further supplying the cosmetics, perfumery and pharmaceutical market alongside food and beverage. Within the later, the company caters the wine, spirits, non-alcoholic beverages and food sector.

Exhibit 10: O-I overview

	
FY23 Production in units	36bn
FY23 Sales in USD	7,105.0
Geography	Europe & Americas

Source: Company information

The American Owens-Illinois Glass company (O-I) is a manufacturer of glass containers with 36bn units being produced in 2023. Its operations are divided into the reportable Segments Europe and Americas, encompassing a total of 34 manufacturing plants across various European regions. In Europe, O-I caters the alcoholic beverages (beer, wine, and spirits), non-alcoholic beverages and food markets. Of its total sales of USD 7.1bn, 43% are generated in Europe.

Exhibit 11: Ardagh overview

ArdaghGroup 	
FY23 Production in units	n/a
FY23 Sales in USD	9,402.0
Geography	Europe & Americas

Source: Company information

The in Luxembourg headquartered Ardagh Group is a private manufacturer of metal and glass packaging with FY23 sales totalling over EUR 9.4bn, with glass packaging making up 49%. The company’s target regions include Europe, Africa, North America and Brazil, in which it operates a total of 63 production facilities across 16 countries. The company serves the food, beverage and pharmaceutical sector in Europe.

In conclusion, we chose Verallia, Vidrala, and Zignago Vetro as closest peers due to their geographical focus on European markets and similar end-markets. O-I was excluded due to its US base and Ardagh due to its high metal share.

SWOT & Porter’s 5 Forces

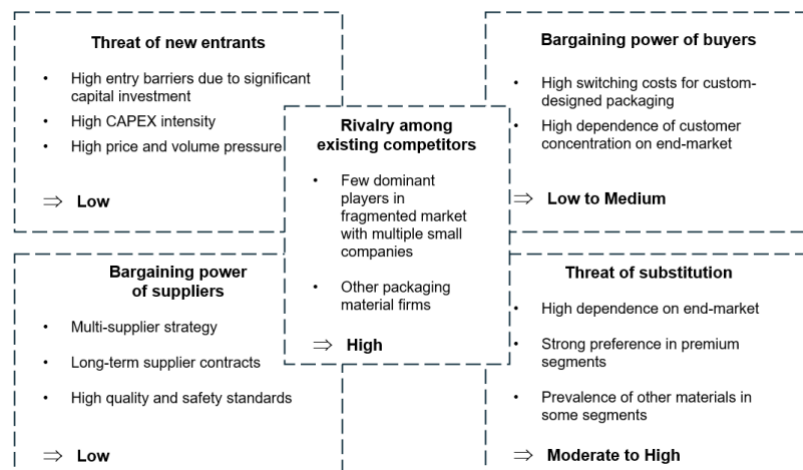
We recognize Vetropack’s strengths in its outstanding innovation capabilities, ranging from products, over production processes towards customer retaining software solutions. For instance, it introduced the first returned bottle made of lightweight glass to the market, called Echovai, and is introducing new furnaces, such as oxyfuel and hybrid, to improve ecological effectiveness through better energy performance. Its ability to continuously improve production capabilities is evident through the strategic investment in a new plant in Boffaloro (Italy) that shows high resource efficiency by utilizing a closed-loop system with water reusage and smart technology. Moreover, its broad portfolio of >2,500 products across several end-markets enables it to serve a large customer base, fostering strong connections by covering every possible business need while keeping up capacities and utilization rates. As a family business, to a certain extent, Vetropack further highly values relationships. This becomes evident by looking at their success stories, promoting the growth of the in 1886 established brand Maison Gilliard by collaboratively developing a high-end bottle to endorse Swiss quality wine. Besides Vetropack’s strengths, we see weaknesses in its business

model such as the dependence on raw materials and energy, exposing the company to fluctuations in both markets and their respective prices. Furthermore, Vetropack has a strong presence in Europe, but its geographic reach may be limited compared to global competitors, making it more exposed to issues in the respective regions. Furthermore, Vetropack deals with an elevated overall cost structure compared to its peers, due to its Switzerland-based headquarters and thereof resulting high expenses, e.g., in overhead costs. Regarding opportunities, on the one hand, Vetropack could explore inorganic growth opportunities by expanding into emerging markets outside of Europe with growing demand for glass packaging, diversifying its revenue streams. On the other hand, the company can further explore organic growth opportunities in European markets to strengthen its presence and attain a higher market share. Moreover, increasing consumer demand for sustainable packaging solutions presents an opportunity for Vetropack to further develop eco-friendly products, aligning with evolving market trends. However, there are several threats endangering its position. For instance, Vetropack faces significant competition from large-scale global and small-scale regional players, intensifying price and product competition. On top of that, evolving regulatory requirements may necessitate investments in compliance measures, increasing operational costs. Additionally, due to its reliance on raw materials, Vetropack is susceptible to supply chain disruptions, potentially affecting the business regarding sales and profitability. Following there is an overview of our SWOT analysis.

<p style="text-align: center;">Strengths</p> <ul style="list-style-type: none"> • Proven innovation capabilities • Continuous improvement of production facilities and processes • Broad product portfolio across several end-markets • Strong customer and supplier relationships 	<p style="text-align: center;">Weaknesses</p> <ul style="list-style-type: none"> • High exposure to volatility in energy and raw material markets • Low business diversification due geographical concentration in Europe • High cost structure through Switzerland headquarters
<p style="text-align: center;">Opportunities</p> <ul style="list-style-type: none"> • Introduction of sustainable product solutions • International diversification outside of Europe • Organic growth possibilities in countries with market presence 	<p style="text-align: center;">Threats</p> <ul style="list-style-type: none"> • Potential loss of market share because of high competition • Potential failure to adapt to evolving operations-related regulation • Vulnerability to supply chain disruptions

The following will focus on the assessment of the Porter’s five forces framework. The threat of new entrants is low, primarily due to substantial capital investments being required to construct manufacturing facilities prior to entering the market alongside significant recurring CAPEX requirements to keep up operations. New firms may also struggle to compete on a pricing level due to competitors having the upper hand from high volume productions. Vetropack relies heavily on suppliers for raw materials but mitigates this dependence by maintaining longstanding relationships with multiple suppliers who meet high quality and safety standards, resulting in low bargaining power for suppliers. The bargaining power of its customers may vary depending on the end-markets, with some

markets being more concentrated among a few producers, such as beer, compared to others with a broader landscape, such as wine. Switching costs for customers are generally high for custom-designed products and lower for mass markets. These factors lead to low to medium buyer's bargaining power. The threat of substitution depends considerably on end-markets since glass has a stronghold in premium segments due to its prestigious image and quality. However, certain markets are more dominated by alternative packaging options. Thus, we see a medium to high threat overall. Competition in the glass packaging industry is characterized by high rivalry, including alternative packaging producers. This is due to Vetropack competing with major global players and multiple regional firms in a fragmented market with partially low product differentiation, depending on the end-market. Following you find an analysis of the Porter's five forces.



Market trends

Glass packaging remains widely popular today due to its premium and sustainable material compared to other packaging alternatives. We see three significant markets trends that will further shape the development of the industry.

- Sustainability

Sustainability and adaption to climate change are important drivers for businesses nowadays with far reaching consequences for social and economic life. Environmental awareness has increased as consumers are more conscious of their own purchase behaviour and governments setting regulations to promote sustainable consumption. Especially, Europe has set goals to elevate packaging recycling rates and explore circular economy solutions. Glass as material fits well in this framework due to its properties of being 100% recyclable and can be used

up to 50 times before serving being recycled⁸. This results in conserved resources and minimized carbon emission. However, the high energy consumption of the manufacturing process and heavier weight compared to other materials are impacting its ecological footprint. The glass packaging industry has significantly reduced its carbon footprint, with glass now being 30% lighter and emitting 50% less CO² than fifty years ago⁹. Additionally, the industry aims to become climate-neutral by 2050 by adopting renewable energy sources and making substantial investments in technology.

- **Lightweight innovation**

Another market trend is the improvement of production processes to decrease the weight, resulting in significantly reduced CO² emissions, transportation and storage costs. Despite past advancements, the trend towards lighter packaging continues, aiming to reduce weight while maintaining quality and design standards. A prime example can be found in Vetropack’s Echovai solution.

- **Premiumization**

A “glassification” trend is observed across food and beverage segments with glass containers being often preferred to reflect a premium positioning. Especially, premium beverage brands are turning to glass packaging to convey a prestigious image of the product. The clarity of glass is ideal for visually presenting the contents within the packaging. The weight and recyclability of glass impart a sense of high-quality craftsmanship and durability, suggesting that the package will endure over time. For instance, glass bottles have remained the preferred choice for the liquor industry owing to their adeptness in preserving the taste and quality of the product. In contrast to plastic or metal containers, glass bottles maintain the integrity of the liquor's taste due to their non-reactive properties. However, this trend finds limited application for the mass market.

Key risks and opportunities

Risks

Vetropack is exposed to business risks with varying degrees of severity. We see the following factors most likely to have significant influence on operations.

- **Geopolitical risks**

Vetropack experienced significant impacts from the macroeconomic environment. For example, since FY22, the Ukrainian conflict exacerbates challenges due to

⁸ Friends of glass
⁹ FEVE

the company's Eastern European operations. Lower margins and slow sales growth were a result of spiking energy costs and inflation combined with dampened consumer spending. These factors contributed to an overall decline in packaging demand in 2023 showing that adverse economic conditions can severely affect companies within the glass packaging industry.

- **Regulation**

Vetropack operates within a highly regulated environment across various countries, necessitating compliance with laws on an international, national and local level. It is subject to numerous consumer health, hygiene, environmental and further regulations where failure to adhere can result in legal consequences such as fines or penalties, as well as damage to reputation and loss of trust among stakeholders. These consequences can negatively affect financial results, with customers possibly redirecting their purchases towards competitors.

- **Supply chain**

Vetropack's business model depends heavily on raw materials from third-party suppliers as input for the production process and can be significantly impacted by distortions in the supply chain. Shortages and rising prices of cullet, quartz sand, limestone and soda ash may result in price hikes that can adversely impact profitability. Furthermore, companies are aiming to increase the share of cullet to lower energy consumption while obtaining high-quality recycled glass can pose a challenge. Collection rates vary throughout countries due to lack of public awareness or suitable infrastructure.

- **Supply and demand balance**

Vetropack operates in various geographic markets with its nine production plants across eight different countries. A careful long-term analysis of demand and capacity is therefore essential, as high transportation costs for glass products limit the ability of one plant to readily accommodate for elevated demand or sudden drops in another. The same issue prevents a fast and easy transfer of excess capacity between nations, resulting in lost sales shares.

- **Exchange rates**

Vetropack conducts business in several European markets where the Euro is the main currency. The company is required to convert balance sheet, income statement and cash flow figures into Swiss Francs for its consolidated financial statements at applicable exchange rates. Only exchange rate variances resulting from converting transactions and balance sheet items impact net income. Therefore, the company can incur a profit reduction from exchange rate volatility.

Opportunities

- Organic growth in Europe

In December 2020, Vetropack acquired a glassworks company in Chişinău, Moldova to enhance their market position in Central and Eastern Europe. At the time, the Moldavian company employed around 450 people and generated sales of approx. CHF 40m. There have been no further acquisitions since FY16 and none are planned for the unforeseen future. As mentioned before, market consolidation is common in the sector, to grow and strengthen market position. Since 2016 each of its peers acquired companies, Vidrala (1x UK)¹⁰, Verallia (1x UK¹¹, 1x Italy¹²) and Zignago Vetro (1x Czech Republic, 1x Poland).¹³ To enhance its competitive position, Vetropack could consider pursuing further acquisitions in Europe, aligning its strategy with its peers. We see particular promising opportunities in Eastern Europe, a region where Vetropack already dominates the market and expanded to in its past.¹⁴

- Inorganic growth overseas

Currently, Vetropack's primary focus lies on Europe. Therefore, we see further potential in intercontinental expansion through inorganic growth, into e.g., the Americas, which would lead to profit from growth markets, compared to Europe demonstrating characteristics of a mature market with traits of lower growth rates and intense competition among established players. Thus, Vetropack stands to benefit from diversifying its geographical reach, as successfully shown by Vidrala having acquired Vidroporto in Brazil. The strategic rationale of the deal is to broaden Vidrala's geographical presence and tap into the expanding Brazilian market, fostering long-term growth, diversifying risk and revenue sources.¹⁵

- Echovai solution

As described in the trends section, companies are prioritizing production enhancements to reduce packaging weight, saving resources and cutting CO² emissions. Vetropack has introduced the first returnable bottle made of tempered lightweight glass after 10 years of development. The company utilized an innovative thermal process of heating and cooling-up the bottles. For the 0.33-liter returnable bottles specifically, adoption of the Echovai solution of 210 grams yields a weight reduction of approximately one-third compared to conventional bottles. Moreover, the decreased height of the lightweight glass product allows to

¹⁰ Vidrala Homepage

¹¹ Verallia Homepage

¹² Verallia Homepage

¹³ Zignago Vetro Homepage

¹⁴ Vetropack Homepage

¹⁵ Vidrala Homepage

stack one more layer of bottles, thereby substantially impacting logistics. This adjustment has led to a notable reduction in CO² emissions per bottle, amounting to a quarter of that by a standard bottle. The bottles were tested as part of a pilot project and the success of the operation will lead to further adoption at more plants to address the raising demand for its Echovai solution.

Financial analysis

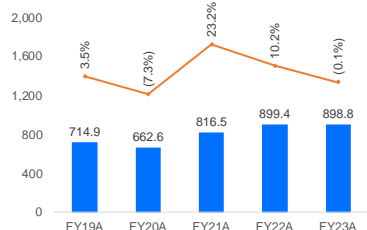
Analysis of historical financials

- Top-line growth

Our historic and forecast analyses include adjustments for outliers/crisis effects within historical averages used. For clarity and to maintain a smooth reading flow, we refer to these as "historical averages" and do not provide each calculation.

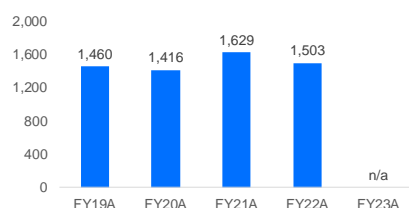
Vetropack demonstrated robust growth in recent years, rising from CHF 601.7m in FY16 to CHF 899.4m in FY22 (CAGR of 6.9%), before growth plateaued in FY23. This development was marked by several pivotal events that are still influencing the company today. FY21 witnessed sales surging from the successful integration and scale-up of operations at the newly acquired Moldova plant alongside a significant rebound from preceding COVID-19 effects, both enhancing demand and production (+15.0%). The sales increase was further driven by a partial pass-through of elevated energy expenses (+61.6%). The situation deteriorated further in FY22 due to the Russian-Ukrainian war, which severely impacted operations, leading to a 7.7% decrease in production and fewer overall demand. The production decline was hereby heavily influenced by a halt in production with subsequent workforce reduction in Ukraine. Additionally, the war contributed its share to a further rise in energy expenses (+75.5%), fuelling further sales price increases. FY23 was marked by increased consumer restraints in the end market, adversely affecting the demand for Vetropack's products and leading to a stagnation in sales. However, this downturn was mitigated by subsequent price adjustments from a delay in passing on escalated energy costs to customers. Vetropack's peers show similar sales developments, except for FY23, where they all increased their sales figures in by a double-digit growth rate, suggesting Vetropack to have significantly more problems to cope with the demand decline.

Exhibit 12: Revenue development



Source: Company information

Exhibit 13: Production volume [1,000 metric tons]



Source: Company information

Exhibit 14: Average peers sales growth



Source: Competitor analysis

Exhibit 15: Personnel expenses allocation

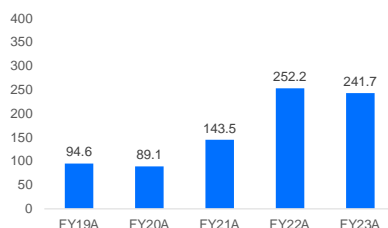
Personnel expenses COGS share	FY23A
Vidrala	53.0%
Zignago Vetro	58.1%
Verallia	n/a
Average	55.5%

Source: Competitor analysis, Economic Research Institute

- Profitability

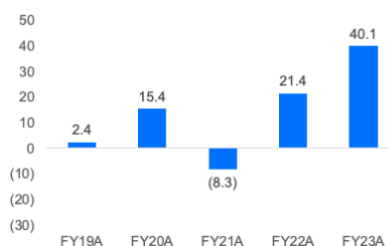
The profitability of glass packaging companies is particularly influenced by three main cost drivers: material-, energy-, and personnel expenses, which are all

Exhibit 16: Energy expenses



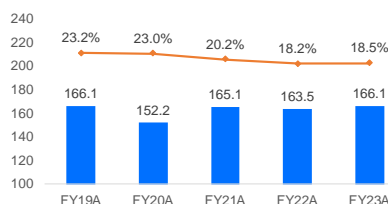
Source: Company information

Exhibit 17: IS effect change in inventory



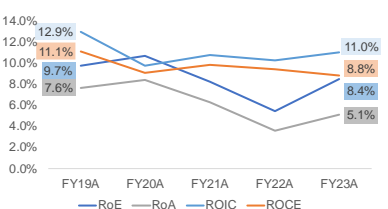
Source: Company information

Exhibit 18: EBITDA [% of Net sales]



Source: Company information

Exhibit 19: Return ratios



Source: Own analysis

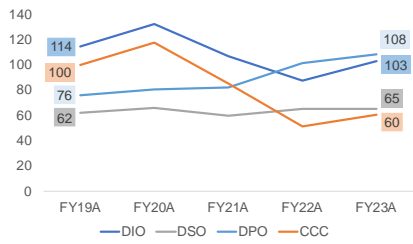
reflected in COGS. In our analyses, it is assumed that 55.5% of personnel expenses can be allocated to COGS based on competitor analysis. From FY20 onwards, Vetropack’s material expenses severely increased in nominal value by an annual average of 9.7% due to supply bottlenecks, increase in production costs and increasing inflation. An even more drastic picture can be drawn for energy expenses which increased by an annual average of 44.2% due to an overall recovery in energy demand after COVID-19, supply bottlenecks and the Russian-Ukrainian war. Personnel expenses were influenced by the layoff of over 400 workers at the Ukrainian plant in FY22 before 139 of them were rehired with the reopening of the plant. An even more drastic increase in COGS was cushioned by Vetropack, through the build-up of inventories. This effect should be viewed with caution, as this equates unsold goods. Altogether, Vetropack experienced a strong surge in COGS from 57.8% of net sales in FY20 to 65.1% in FY23, which is in line with the average peer development (55.7% to 60.7%). EBITDA dropped from 23.0% of net sales in FY20 to 18.5% in FY23. This impact was once again mitigated by substantial income from subsidies (CHF 9.5m in FY22 and CHF 6.2m in FY23) and should be viewed with caution due to its extraordinary nature. Compared to its peers, Vetropack’s elevated base cost structure is evident in its consistently lower EBITDA margins. However, while in FY19, Vetropack’s margin was still close to its peers (23.2% vs. 26.5%), it has gradually diverged, resulting in a significantly lower margin in FY23 (18.5% vs. 30.1%), reflecting less efficient cost management over the years.

Return analysis

Vetropack reports a significant increase in net income (+55.5%) in FY23. However, this must be seen with caution due to inventory and subsidy effects, limiting the validity of the reversal effects, seen in return on equity (RoE), return on assets (RoA) and return on invested capital (ROIC). Compared to its peers, Vetropack lags significantly behind their historical average RoE of 23.3%, emphasizing Vetropack’s current operational inefficiencies. It further showcases the omission of positive leverage effects on equity return for Vetropack. That Vetropack has lost its operative touch with its peers, becomes further evident when assessing ROA, as in FY20 Vetropack was still on par with its peers before deteriorating to 5.1% in FY23 (12.1% historic peer average). Furthermore, Vetropack shows a poorer utilisation of capital compared to its peers, visible when assessing ROIC (historic averages of 10.3% vs. 23.5%) and ROCE (historic averages of 9.7% vs. 13.4%).

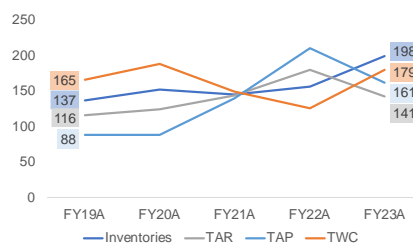
Working capital management

Exhibit 20: Trade working capital [CCC]



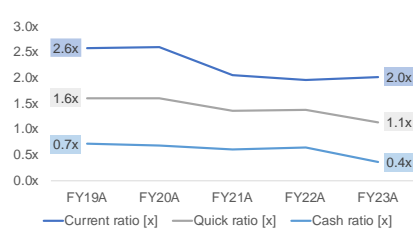
Source: Company information

Exhibit 21: Trade working capital [nominal]



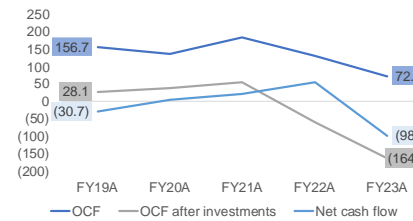
Source: Company information

Exhibit 22: Liquidity ratios



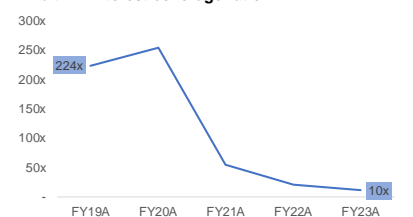
Source: Company information

Exhibit 23: Reported cash flow



Source: Company information

Exhibit 24: Interest coverage ratio



Source: Company information

To evaluate Vetropack’s operational efficiency, we analysed its working capital through the cash conversion cycle (CCC). In 2023, Vetropack’s CCC was 60 days, which is notably shorter than historical figures and competitor averages, indicating improved management of working capital. However, it is crucial to consider the nominal changes since the ratios are affected by a significant increase in COGS. Accounts receivables exhibit minimal fluctuations in both nominal value and days sales outstanding (DSO), suggesting effective receivables management from long-term customer relationships. Inventories showcase a rather stable nominal development until FY23 where lower than expected demand resulted in significant build-up of finished goods. The historical decrease in DIO is therefore negligible. The rising inventory levels highlight the management’s observed demand decline and potential cuts in production capacity. Nonetheless, Vetropack consistently showed strategic and effective inventory management, proving resilient in crises, reinforcing management’s assertion to be able to efficiently adjust its production capacities and lines to meet market demands. Vetropack’s accounts payables have seen a notable rise in both days payable outstanding (DPO) and nominal values over the past three years, mainly due to increased efforts to enhance flexibility and liquidity. As Vetropack still remains below the peer average of 112 days, we see this development as a positive outcome of its long-term relationships with suppliers who accommodate Vetropack’s need for flexibility.

- Liquidity, cash flow and solvency

To assess Vetropack’s short-term financial health, we analysed three key liquidity ratios. The current ratio, although declining in recent years, continued to significantly surpass both, the 1.0x threshold¹⁶ and the peer average of 1.2x, indicating robust short-term liquidity to meet financial obligations. Additionally, Vetropack’s quick ratio of 1.0x, demonstrates the company’s solid capacities to cover short-term liabilities without relying on inventory liquidation, again outperforming the peer average. The cash ratio, reflecting the most conservative liquidity measure, was recorded at 0.4x, doubling the peer average of 0.2x. Despite a decline in these ratios, Vetropack consistently maintained levels above critical thresholds, underlining its solid liquidity position and cash management. These metrics are bolstered by strong operating cash flows prior to investments, affirming the company’s operational cash generation strength. Nevertheless, it must be noted that the Company reported negative free cash flows to the firm in the last two years, primarily due to high CAPEX costs related to the construction of the Boffalore plant. Despite rising debt levels, Vetropack continued to

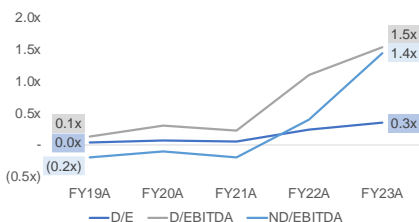
¹⁶ Investopedia

demonstrate a strong interest coverage ratio, mitigating potential insolvency risks and underscoring the company's prudent financial management and resilience amidst heightened liquidity demands.

▪ Capital structure

Historically, Vetropack has maintained a conservative debt approach, often operating with negative net debt, prioritizing internal funding for growth, as evidenced by low historical average ratios of debt-to-equity (7.6%), total debt-to-EBITDA (0.4x), and net debt-to-EBITDA (0.0x). However, there was a notable shift in the capital structure in FY22 to finance the Boffaloro plant. Consequently, Vetropack’s financial debt rose sharply from CHF 37.5m in FY21 to CHF 255.7m in FY23, approaching competitors (0.7x D/E, 1.4x D/EBITDA, 1.1x ND/EBITDA).

Exhibit 25: Debt ratios

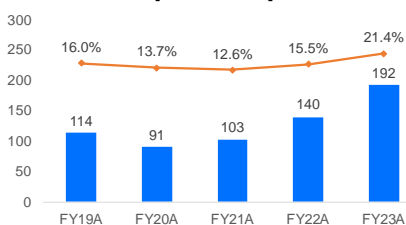


Source: Company information

▪ CAPEX and asset development

Vetropack displays an average historical CAPEX level of 14.5% of net sales, which can be separated in maintenance CAPEX (historical average of 10.9%) and expansion CAPEX (historical average of 3.6%). The recent years’ rise can be attributed to the construction of the Boffaloro plant. Since FY16, the balance sheet grew at a CAGR of 6.0% and therefore in line with Vetropack’s net sales (5.9% CAGR). Although this development is strongly driven by price increases and constructions, it shows that Vetropack is executing strategic investments to remain competitive in the long-term and targets sustainable growth.

Exhibit 26: CAPEX [% of Net sales]



Source: Company information

Forecast implications and management guidance

The historic assessment combined with recent management statements provide several main implications for Vetropack going forward¹⁷:

1. Vetropack will continue to face elevated but gradually declining raw material and energy costs due to a delay in purchase price transmission.
2. Vetropack will focus on being efficient through proactive management of capacities and costs reductions. This incorporates delaying the resumption of production lines in Ukraine, Czech Republic and Italy until needed. Management further anticipates declining top-line growth for FY24 alongside a rebound in sales volumes, especially in the second half of the year. The sales decline arises from price erosions due to overcapacity in the market. The volume rebound necessitates a gradual increase in production capacity and can be achieved with strong working capital management, long-term relationships and the ability to relatively flexibly adjust production line needs.

¹⁷ Vetropack AR23

3. Vetropack will suspend significant CAPEX investments for an undefined period. However, the company will continue to invest in their plants to boost innovation strengths. This implies, amongst other, retrofitting plants by e.g., deploying particularly efficient glass-blowing machines.
4. Vetropack’s management remains committed to a conservative debt strategy, focusing on having a largely self-financed sustainable growth and financial stability as their top priority.
5. Vetropack is currently facing three significant events that could profoundly affect the company’s future. Firstly, a potential resolution of the Russian-Ukrainian war that could lead to an economic recovery in Ukraine and its neighboring markets. Secondly, a potential shutdown of the St-Prex production facility in Switzerland due to expected ongoing unprofitability. As of May 6th, 2024 this matter is under consultation, with employee representatives having submitted alternative proposals to closure for management’s consideration. Given the high degree of uncertainty and the absence of detailed data, these scenarios are not included in the base case forecast and cannot be separately considered in a scenario analysis. However, they are of importance as both would yield positive effects on the Company’s performance and therefore valuation. Thirdly, Vetropack has readied its innovative Echovai product for market and is scaling up production across additional plants. This effect is considered in the base case. A potential market disruption of Echovai beyond our assumptions for the base case scenario is being considered in a scenario analysis.

Forecast of the operating model

Approach and data availability

To evaluate Vetropack’s core value, we restructured the financial statements into three segments: core, non-core and financial. Non-core and financial items are forecasted separately and are not discussed in detail, as they do not directly contribute to the core operations and therefore core EV. In our projection, we anticipate Vetropack to undergo two transitional years of normalizing operations and market, before reaching a certain steady state FY26 onwards.

Vetropack operates within a specialized niche market characterized by high competition and sensitive supplier relationships, who could potentially draw conclusions about margins and prices from segment results as they contain highly delicate and valuable information. Consequently, Vetropack refrains from disclosing specifics of its segment results and financial data to mitigate the risk of

incurring substantial competitive disadvantages. Despite extensive attempts to acquire more detailed information, including outreach to Vetropack’s investor relations department, our efforts have regrettably not been fruitful.

Income statement related

- Sales forecast

Exhibit 27: Sales driver overview

Driver	Type
Production	Volume
Inflation	Price
Input costs	Price
End markets	Price and volume

Source: Own analysis

Vetropack’s financial reports are lacking comprehensive information about the breakdown of product groups and geographical segmentation. To be more precise, there is no data given about the sales volume of jars vs bottles, which segments of the market they target or which countries they sell to. Thus, we utilized the limited information given to build up a country-based model with four main drivers for our revenue forecast.

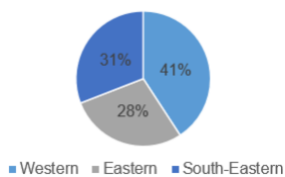
Firstly, Vetropack reported net sales by supplying country and units sold to four regions until the annual report 2022. As outlined in its latest annual report, Vetropack specifies a delivery radius of 400km from its production plants. Thus, we can infer that the regions must contain supplying and adjacent countries within the set distance limit. Based on this geographical assumption, we defined the countries for our production driver as seen in Exhibit 28, market volume data for the mentioned countries was collected on the Globaldata¹⁸ until 2030 to forecast the market growth based on production volume. A regional split is approximated through an historical average of available data. The resulting production growth rates are added according to its historical average share of net sales. Secondly, information is lacking regarding the price movement of the glass packaging market, consequently necessitating approximation via macroeconomic drivers. We selected inflation since it indicates the general price increase in an economy. Detailed inflation forecasts are given by the IMF until 2028 such that the subsequent years until 2032 are extrapolated from the numbers observed in 2028 due to the difficulty in making accurate predictions in the far future. A weighted average of the different regions’ inflation is then computed by applying the weights of the nominal domestic product values for each respective country and each regional average is added according to its historical average share of net sales.

Exhibit 28: European regions overview

European region	Countries
Western	AT, DE, FR, BE, LI, LU, CHF
South-Eastern	HR, SI, BA, RS, BG, IT
Eastern	CZ, MD, UA, BY, RO, SK, HU, PL

Source: Own analysis

Exhibit 29: Average FY16-FY21 aggregated European regions share of sales



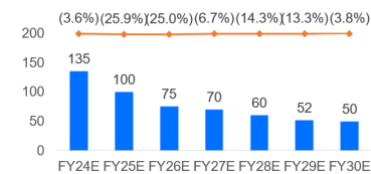
Source: Company information

To adjust our market growth consisting of production volume and inflation, we carefully considered the three most significant input factors. As for the raw material input, management guides that the amount of used glass will increase to 70% until 2030. Based on that assumption, the share of other raw materials has been independently modelled until 2030. Raw material costs were determined

¹⁸ Globaldata

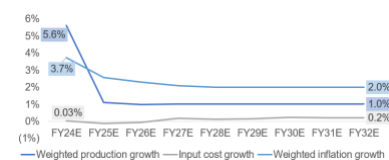
based on an average of market growth rates sourced from market reports for each respective component. Energy costs have witnessed a notable increase since 2022. Current energy forecasts show that baseload power prices are expected to decrease until 2030. Hence, the energy input was derived from the power price estimate provided by S&P,¹⁹ resulting in a decline in the energy overgrowth to approximate pre-war levels. The growth of wages and salaries constitutes the third factor that based on per FTE sales and expenses. A more detailed description can be found in the COGS part. The sum of all cost input factors is multiplied by 0.1 before being added to the three driver's sales forecast. The factor was extracted from guidance given by O-I.²⁰ The inclusion of selected input cost drivers is intended to finetune the price driver approximated through inflation, recognizing that price increases can only be passed on to consumers to a certain extent and with a certain time lag. End-market growth is incorporated as the fourth driver, representing the average market growth across all product categories. Product groups are seen as one due to lack of information on product splits. In conclusion, the sales forecast is calculated by assigning a weight of 0.8 to the combined production volume, inflation, and input cost drivers, and a weight of 0.2 to the end-market driver. As a result, we arrive at a base case of 3.6% growth in 2025, declining to 3.2% growth by 2032. This growth is in line with a market report by Mordor Intelligence²¹, suggesting a CAGR of 3.2% for the European glass packing market between FY24 and FY29. For FY24, we adjusted sales to -2.0% according to management guidance and Q1 2024 developments of peers, which have seen a decline in Q1 but are expecting considerable recovery during the year.

Exhibit 30: S&P forecast European baseload power prices



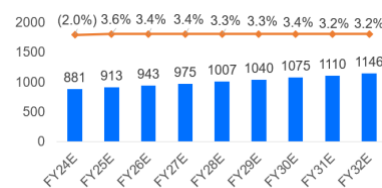
Source: S&P

Exhibit 31: Production, input cost and inflation driver



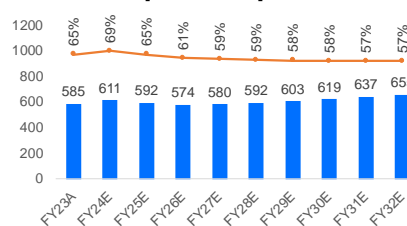
Source: Own analysis

Exhibit 32: Revenue forecast



Source: Own analysis

Exhibit 33: COGS [% of Net sales]



Source: Own analysis

Exhibit 34: Energy expenses [% of Net sales]



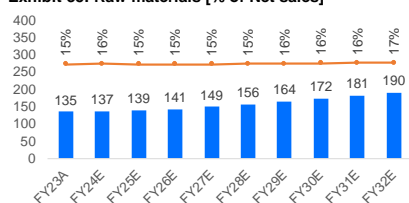
Source: Own analysis

▪ COGS and SG&A

COGS are expected to further increase in FY24 before significantly decreasing until FY26 from where the improvement gradually thins out. This is primarily due to the three main cost-related performance driver and the income statement effect of change in inventory. We anticipate **raw material** prices (c. 92% of material expenses) to gradually normalise alongside business and market recovery by FY26, reaching their historical average of 15.0% of sales. Thereafter, we expect them to develop with the growth rate used within the sales forecast. **Energy costs** are expected to stabilize in FY26 at levels slightly below those of FY21, as indicated by the energy brainpool report.²² Thus, we expect energy expenses to stabilize at 16.0% of net sales, reflecting a lower level than in FY21 but elevated compared to FY20. Beyond FY26, these costs are anticipated to

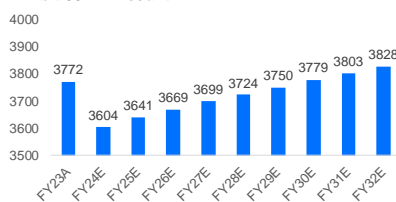
¹⁹ S&P
²⁰ O-I Annual Report FY23
²¹ Mordor Intelligence
²² Brainpool

Exhibit 35: Raw materials [% of Net sales]



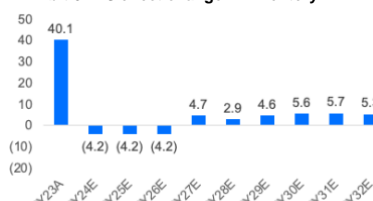
Source: Own analysis

Exhibit 36: FTE count



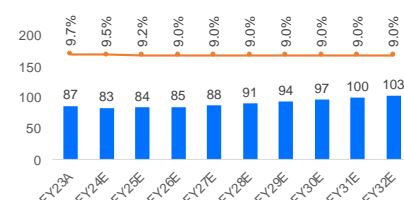
Source: Own analysis

Exhibit 37: IS effect change in inventory



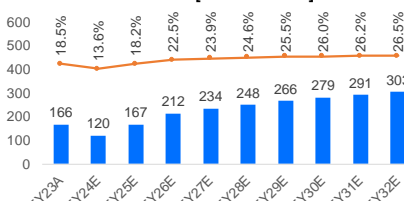
Source: Own analysis

Exhibit 38: Other administrative and operating expenses materials [% of Net sales]



Source: Own analysis

Exhibit 39: Core EBITDA [% of Net sales]



Source: Own analysis

develop with the growth rate projected in our sales forecast. The impact of volume increases on energy and raw material costs is expected to be mitigated by enhanced production processes, the share increase of innovative products requiring fewer raw materials and energy as well as the deployment of modernized machinery and production processes that reduce waste and provide improved efficiencies. Wages and salaries (c. 75% of personnel expenses) are projected on a per FTE level. We expect wages and salaries per FTE to rise by 2.0% annually, mirroring Vetropack’s historical trend and aligning with OECD²³ covered historic averages. Furthermore, net sales per FTE are projected to increase by 2.6% annually, reflecting the historical CAGR of 2.5% plus an additional 0.1 p.p. from enhanced efficiencies of advanced machines and production processes. As a result, we expect a reduction in FTEs in FY24. This aligns with the management guidance, which includes restrictions in creating new positions and leaving vacancies unfilled. Our approach further yields an ongoing personnel cost efficiency over time. Based on competitor analysis, 55.5% of personnel expenses are allocated to COGS. Contrary to the recent years’ trend, we expect Vetropack to gradually reduce their elevated inventory levels in response to the anticipated increase in demand until FY26, without having to activate additional production lines or significantly ramping up capacities. However, this approach will reverse the positive impact on COGS in recent years, resulting in higher COGS. Regarding SG&A, we anticipate that other administrative and operating expenses will gradually decrease from the current level of 9.7% of net sales to 9.0% by FY26, reflecting the historic lowest level, from where it will then stabilize. This trend follows management-initiated restructuring and measures, paired with digitalization efforts such as the development and rollout of Vetropack’s holistic pallets and pad management system (HPPM) at their plants and clients’ sites. Subsequent margin enhancements are due to SG&A’s personnel expenses share.

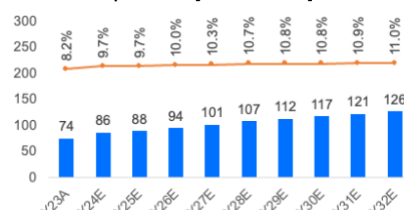
▪ Core EBITDA

Based on these assumptions, Vetropack’s core EBITDA margin is projected to initially decline to 13.0% of net sales (-13.9%), followed by a swift recovery to 21.9% in FY26 and 25.9% in FY32. This indicates a potential surpassing of its previous peak performance of 22.6% in FY19. However, the trajectory is contingent with the evolution of material and energy expenses, which significantly impact this metric. These projections further imply that Vetropack will return to a competitive level with its peers (historical average EBITDA margin of 26.5%).

▪ D&A

²³ OECD

Exhibit 40: Depreciation [% of Net sales]



Source: Own analysis

Vetropack is expected to experience a significant surge in depreciation in FY24, primarily coming from the reclassification of advance payments and assets under construction into furnaces, equipment, production facilities, and molds. These assets carry a relatively high D&A rate of 18.4% of net sales, further amplifying the effect. Subsequently, the D&A rate continues to increase annually due to operations related adjustments in the tangible core assets structure, reaching 10.9% in FY32, remaining below the highest historical value of 11.1%.

▪ Tax rate

Exhibit 41: Weighted statutory tax rate

Country	Statutory TR	Weight	Weight. TR
Switzerland	17.06%	11.76%	2.01%
Austria	23.00%	27.38%	6.30%
Czech Reput	21.00%	9.39%	1.97%
Croatia	18.00%	20.74%	3.73%
Slovakia	19.00%	8.47%	1.61%
Ukraine	18.00%	1.87%	0.34%
Italy	24.00%	12.92%	3.10%
Moldova	12.00%	7.48%	0.90%
Average	19.01%		19.95%

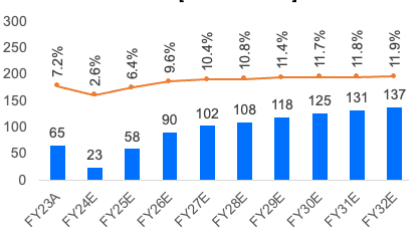
Source: Own analysis, Orbitax, PWC

For the tax rate, we utilized a production-based average statutory tax rate of 19.95%, aligning with historical averages and Bloomberg’s recommendation. It is important to note that Vetropack is impacted by the new BEPS 2.0 regulation from the OECD, imposing a global minimum effective tax rate of 15% for revenues exceeding EUR 750m.²⁴ However, specific implications remain uncertain for us and Vetropack itself. Given the significantly higher rate of 19.95% being utilized, we believe it is prudent to account for potential effects.

Further items in the financial statements are of less significance and were primarily projected in alignment with total revenue growth, reflecting our anticipation that they will depend on the organic business development.

▪ Core result and return analysis

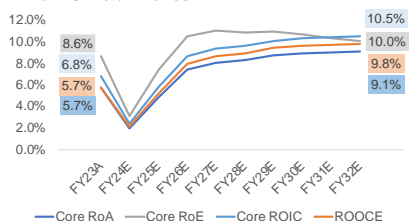
Exhibit 42: Core result [% of Net sales]



Source: Own analysis

Overall, we anticipate Vetropack to experience a CHF 41.2m (-63.9%) decrease in its core result compared to FY23. However, it is crucial to note that the difference in inventory alone contributes a negative CHF -44.3m to this result (excluding tax effects). Going forward, we expect Vetropack to undergo a significant recovery due to ongoing positive cost effects, cost-cutting measures, improved capacity utilization rates and increased top-line growth. This leads to an anticipated core result of 11.9% of net sales by FY32. This positive trajectory is further reflected in the rise of profitability KPIs. We project core RoA to reach 9.1%, surpassing historical levels and signaling a return to more efficient utilization of core assets, thereby returning to a competitive level. RoE is expected to reach 10.5% by FY32, thereby surpassing historic returns. However, the projected development further indicates that with decreasing net debt levels RoE decreases, thereof showcasing a potential drawback for equity holders in Vetropack’s capital structure strategy by missing out on excess returns on externally raised capital. ROIC is projected to reach 10.5% by FY32, surpassing our WACC estimate (more detailed in the cost of capital chapter). This suggests that Vetropack will transition from a value-destroying to a value-creating state.

Exhibit 43: Return ratios



Source: Own analysis

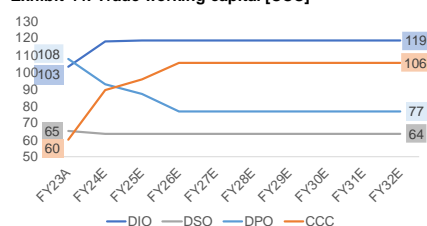
²⁴ OECD

Lastly, Vetropack’s management aims for a ROOCE level of 20% in the medium term. However, based on the core business development, we find this goal overly optimistic, as we project this KPI to reach 9.8% by FY32, while never having surpassed the 10% threshold in the past. We assume that Vetropack may be forecasting stronger growth or potentially including further M&A acquisitions, however, we caution against relying on this management statement.

Balance sheet related

- Working Capital

Exhibit 44: Trade working capital [CCC]



Source: Own analysis

Inventories are expected to gradually normalize towards a stable historical level of 119 days in FY26 and will remain there onwards. This is in line with the historical average of its peers of 123 days. Accounts payables are similarly expected to gradually normalize towards a historical stable level of 77 days. This is significantly below the historical peer average of 112 days. However, we expect Vetropack to return to historical levels to remain its strong partnerships with suppliers, potentially securing better conditions and showing of their financial strengths. Accounts receivables are expected to remain stable at their historical average of 64 days, which is in line with the industry average of 64 days. Altogether, the CCC is expected to normalize until FY26 towards 106 days which is in line with the stable historical average of 104 but remains above the peer average of 72 days. This implies significant higher trade working capital requirements and therefore more funds being tied up in day-to-day operations, which could lead to reduced availability of cash for investments subsequently negatively affecting returns. Operating cash is assumed to cover one month of annual expected operational expenses according to academic guidance.

- CAPEX

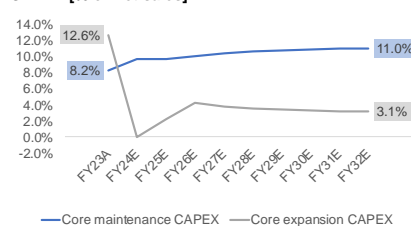
Exhibit 45: Core CAPEX [% of Net sales]



Source: Own analysis

As previously discuss, Vetropack wants to postpone significant CAPEX investments for an unforeseeable time. Thus, potential M&A acquisitions are not considered. Additionally, we expect Vetropack to only invest CAPEX close to their maintenance capex level in FY24 before gradually increasing towards its historical core level of 14.1% in FY26, from where it remains stable. This is in line with the historical peer average of 14.1% as well as the management guidance to further invest in innovations and retrofitting plants and production lines. Thus, we expect maintenance capex to be between c. 10-11% and expansion capex to be between 3-4% (in line with historical averages). Maintenance CAPEX for tangible assets is derived from a granular forecast of the underlying asset structure and their respective depreciation rates based on

Exhibit 46: Maintenance and expansion core CAPEX [% of Net sales]



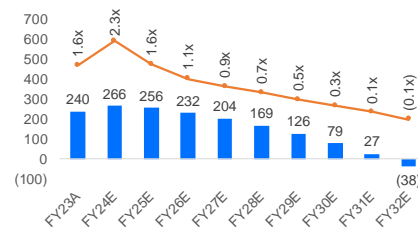
Source: Own analysis

operational developments. Maintenance CAPEX for intangible assets (software) is kept stable as we see Vetropack continuing to develop and roll out HPPM.

- Capital structure

Debt is forecasted as a variable depending on the additional funding needed in excess of operational cash generation to fund invested capital increases. For this, excess liquid funds were set to zero when debt is required.²⁵ This approach yields a development towards the historical treatment of debt from Vetropack, reaching a positive net debt level by FY32. This aligns with our target capital structure assumptions, based on historical averages and management guidance.

Exhibit 47: Net debt [x of core EBITDA]

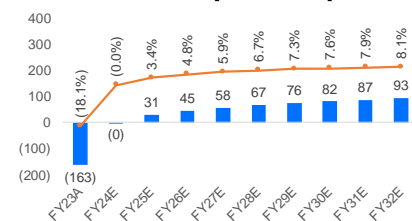


Source: Own analysis

Cash flow related

We anticipate Vetropack to have free cash flow from core activities being close to zero in FY24. This is due to subdued core results, escalating depreciation and growing working capital requirements which are offset by low capex investments. Moving forward, Vetropack is expected to demonstrate robust free cash flow generation, projected to achieve 8.1% of net sales by FY32, aligning with the management’s target to achieve positive cash flow post-investments and dividends. Regarding dividends, we expect a stable payout for the next three years, followed by adjustments to align with the historical average of distributing 1/3 of the prior year’s total income. We believe Vetropack will maintain this dividend strategy to reflect their confidence in the company’s financial robustness. Discussions on cash flows from non-core business and financing activities are omitted, as they do not directly impact the core enterprise value.

Exhibit 48: Core cash flow [% of Net sales]



Source: Own analysis

Valuation

Cost of Capital

- Cost of Equity (CoE)

To calculate the CoE, the capital asset pricing model was deployed. All utilized values are shown as of May 06th, 2024 or their last available update. Given Vetropack’s large share of operations across various European countries, a 10-year AAA Government Bond in Europe was selected as the risk-free rate²⁶. For the market risk premium, we used a production-based weighted average, based on Damodaran²⁷, due to Vetropack’s close business practices of max. 400km in the vicinity of the respective production site. For the unlevered beta estimation, the daily returns of the Euro Stoxx 600 were regressed against Vetropack’s daily

²⁵ McKinsey – Measuring and managing the value of companies

²⁶ ECB

²⁷ Damodaran, NYU as of 01/2024

returns over the last two years. The thereof resulting unlevered equity beta amounts to 0.91. This puts Vetropack in the range of its competitors, however, above the median and average, which indicates a slightly higher risk of business. Combined, these three components yield an unlevered CoE of 8.96%. As previously mentioned, we expect Vetropack to reverse their current elevated capital structure. Therefore, we employed a target net-debt-to-equity ratio of 0.04, based on Vetropack’s historic average of net-debt-to-market-capitalization. We further utilized a debt beta of 0.17²⁸. The debt beta refers to a BB-credit rating which was constructed with the Altman Z’-score and its respective classification²⁹ and lies within the assumptions of leading financial platforms. Combined, this yields a re-levered equity beta of 0.94, resulting in a levered CoE at 9.16%.

▪ Cost of Debt

Vetropack has reported debt carrying interest rates ranging from 0.77% to 14.00%. However, the company has not disclosed specific re-levering rates or debt amounts associated with each interest rate. To construct the CoD before tax shields, we utilized a high-yield bond from BB-rated European companies of 6.22%³⁰, a Europe 10-year corporate default rate for BB-rated companies of 5.98%³¹ and a European loss-given default for European BB-rated companies of 63.00%³². Using the production-based average statutory tax rate of 19.95%, the after-tax CoD for Vetropack is calculated to be 4.69%.

▪ Weighted Average Cost of Capital

Vetropack's estimated WACC is composed of the weighted levered CoE of 9.16% and after-tax CoD of 4.68%. These components are weighted with a target net-debt-to-capital ratio of 0.03. As a result, Vetropack’s estimated WACC is calculated to be 9.03%.

WACC		Levered cost of equity				
		8.16%	8.66%	9.16%	9.66%	10.16%
	(0.17)	8.76%	9.34%	9.93%	10.51%	11.10%
	(0.07)	8.41%	8.95%	9.48%	10.02%	10.55%
Target ND/EV	0.03	8.06%	8.55%	9.03%	9.52%	10.00%
	0.13	7.71%	8.15%	8.59%	9.02%	9.46%
	0.23	7.37%	7.75%	8.14%	8.52%	8.91%

A sensitivity analysis reveals that Vetropack’s WACC is significantly more impacted by the levered CoE than by the after-tax CoD. This finding highlights the importance of equity cost considerations in Vetropack’s financial strategy. Given Vetropack’s conservative approach towards debt, the company faces a high CoE, which could be mitigated by adopting a more debt-friendly capital

Exhibit 49: Credit rating benchmark

Benchmark	Value
Bloomberg	BB
Refinitiv	BB
Constructed	BB
Risk rating	BB

Source: Bloomberg, Refinitiv, own analysis

Exhibit 50: Cost of capital components

Component	Value
Risk-free rate	2.62%
Country/region risk premium	6.98%
Unlevered equity beta Vetropack	0.91
Unlevered cost of equity	8.96%
Target net debt / equity	0.04
Debt beta	0.17
Re-levered industry beta	0.94
Levered cost of equity	9.16%
Cost of debt (pre-tax)	5.85%
Tax-rate	20.0%
Cost of debt (after-tax)	4.69%
Target net debt / enterprise value	0.03
WACC	9.03%

Source: Own analysis, see footnotes

²⁸ Stanford GSB Working Paper „Risk in Capital Structure Arbitrage”

²⁹ Research gate

³⁰ FRED

³¹ Standard & Poors

³² ION Analytics

structure policy. This strategy would further lower the overall cost of capital, enhancing financial flexibility and improving returns through e.g., tax-shields.

Intrinsic valuation

As an intrinsic valuation method we applied the discounted cash flow (DCF) method, which is based on the operating model assumptions and the thereof resulting unlevered free cash flow from core activities. To discount the forecasted cash flows until FY32, a mid-year convention approach with the computed WACC of 9.03% has been used. Furthermore, to derive the terminal value (TV), the Gordon Growth Model has been applied. The perpetual growth is composed from five factors and yields an equally weighted average of 2.20%, being in line with the competitors long-term growth estimates. Based on these assumptions and considerations, the core business enterprise value (EV) lies at c. CHF 1,064.6m. To get Vetropack’s combined EV, we add the expected non-core invested capital value FY24 of CHF 35.5m, yielding a total EV of CHF 1,100.1m. After subtracting net financial debt, which is projected to stand at CHF 266.2m an equity value of CHF 834.0m is derived. This valuation suggests an implied share price of CHF 42.07. To explore the impact of varying perpetuity assumptions on the implied EV, a sensitivity test has been conducted, showcasing that a lower WACC (e.g., through a higher debt ratio) or a higher terminal growth rate (e.g., through M&A acquisitions) can improve the EV.

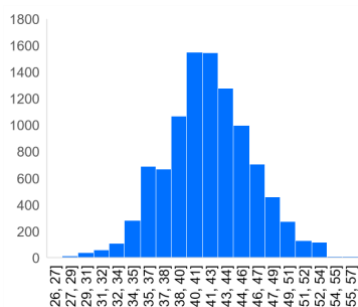
Exhibit 51: Perpetual growth rate

Category	Factor
Competitor guidance [as of 2024]	2.20%
Real GDP OECD expectations Europe [2032 - 2060]	1.42%
Inflation target ECB [2024 - 2050]	2.00%
Historical inflation average in Europe [1990 - 2023]	2.69%
Vetropack historical CAGR [1990 - 2023]	2.71%
Equally weighted average	2.20%

Source: Competitors, OECD, ECB, Company information

Core EV		WACC				
		8.0%	8.5%	9.0%	9.5%	10.0%
Terminal growth rate	1.7%	1,188.3	1,094.5	1,013.8	943.6	882.0
	2.0%	1,223.6	1,123.8	1,038.3	964.3	899.7
	2.2%	1,261.9	1,155.3	1,064.6	986.5	918.6
	2.5%	1,303.6	1,189.5	1,093.0	1,010.3	938.7
	2.7%	1,349.2	1,226.6	1,123.5	1,035.8	960.2

Exhibit 52: Monte Carlo simulation



Source: Own analysis

We performed a Monte Carlo simulation to gain a more comprehensive understanding of the range of potential outcomes for our estimated share price. Variables with a significant influence on our result were selected, such as revenue, energy-, personnel expenses and material growth. 10,000 iterations were conducted on the DCF analysis with the selected drivers as variable inputs. A median share price of CHF 41.8 and an average share price of CHF 42.0 were attained with a standard deviation of 4.3. This result is directly in line with our DCF share price of CHF 42.07 and supports our intrinsic value analysis.

Relative valuation

- Comparable transactions valuation

After analyzing a large data set of packaging transactions, we selected suitable deals in the glass packaging industry from the last 5 years by removing financial

outliers, geographic location and minority deals from our long list. All selected transactions are therefore majority shareholding acquisitions. The average size is smaller than the market value of Vetropack which can be partially explained by the notion that mostly smaller companies get acquired by large for consolidation reasons. The median EV/EBITDA multiple is considered the most reliable indicator of a company's value, leading us to determine a share price of CHF 28.35 after adding the non-core value and subtracting net debt from our EV of CHF 828.1m. The notably lower share price is attributed to the projected decrease in EBITDA for 2024, reflecting expected drops in sales and profitability.

Date	Target	Industry	Acquirer	EV (CHFm)	EV/EBITDA	EV/Sales
Feb-24	Vidrala Italian subsidiary	Glass packaging	Verallia	221	7.0x	1.8x
Dec-23	Vidroporto	Glass packaging	Vidrala	373	6.9x	2.4x
Nov-22	Allied Glass Containers	Glass packaging	Verallia	372	7.0x	2.1x
Nov-21	Consol	Glass packaging	Ardagh Group	581	6.6x	1.1x
Median					6.9x	1.9x

Source: Mergermarket, Capital IQ, Own analysis

▪ Comparable companies valuation

We analyzed different groups of companies to find suitable peers reflective of Vetropack’s business model and geographical location. There is a multitude of publicly traded companies in the general packaging industry, however, we decided to target peers focusing on glass packaging since they share the most similarities in terms of business operations and risks. Furthermore, we excluded companies focusing on industries not covered by Vetropack as well as companies having large shares of different packaging products. Lastly, we excluded companies with large business operations outside of Europe. As a result, we obtained three peers (as mentioned earlier). We took FY24 EV/Sales, EV/EBITDA and EV/EBIT multiples into account as P/E multiples do not fit well due to limited comparability. The EV of FY24 was computed with the median EV/EBITDA multiple of 7.4x, arriving at the implied share price of CHF 31.28 after adding the non-core value and deducting net debt.

Company	Share price (CHF)	Market Cap (CHFm)	EV (CHFm)	FY24E EV/Sales	FY24E EV/EBITDA	FY24E EV/EBIT
Vidrala	101	3,250	3,731	2.4x	8.9x	11.8x
Verallia	36	4,316	5,629	1.6x	5.7x	8.6x
Zignato Vetr	12	1,100	1,265	2.0x	7.4x	12.5x
Median				1.98x	7.42x	11.79x

Source: Bloomberg

Discount discussion

The purchase of Vetropack’s listed Class A shares does not give investors the possibility to gain control or participation rights in the company since the Cornaz shareholder group holds 71.6% of voting rights. A similar case could be seen in a recent example of Paramount. The first offer by Skydance included a USD 2bn payout to the family holding that controls Paramount through c. 77% of voting

class A shares and a following all-stock acquisition of Paramount with a value of around USD 4-5bn with no clear benefit for common shareholders³³. The proposal was then amended with a USD 3bn deal sweetener consisting of share buybacks and cash for debt. The second offer was given by Sony and Apollo with a USD 26bn cash offer and better terms for common shareholders. This example illustrates how common shareholders without voting rights could be disadvantaged in deal negotiations. Further potential threats include majority shareholder friendly dividend politics, abuse of power and decisions that are not in the best interests of the company. Therefore, we believe that a discount of 10% to adjust for these possibilities is appropriate to apply.

Szenario analysis

Best and worst case scenario

To consider potential differences from our assumptions, unrelated to extreme events, we applied several deviating projections from the base case. For sales, we incorporated an annual one p.p. higher/lower growth rate. Material expenses growth are adjusted from FY26 onwards with a 0.3 p.p. difference due to e.g., changing supplier contracts or market conditions. Similarly, energy expenses are expected to fluctuate by 0.3 p.p. due to e.g., changes in the political landscape or different developments of renewables in the overall energy source mix. Personnel expenses are expected to depend on a 0.4 p.p. higher net sales per FTE development due to e.g., even higher efficiencies being realized from the updated production processes and lines. In the worst-case scenario, we expect Vetropack to reach the level of wage increases. Other expenses are expected to reach their 20%, and 80% respectively, percentile of the utilized historical forecast assumption period. CAPEX levels are expected to develop similar to the base case scenario to stay competitive while debt adjusts accordingly with the growth requirements from these assumptions. These scenarios reflect the low and high point of our DCF valuation in the football field.

Echovai market disruption

Although we already incorporated the gradual incorporation of Echovai in our base case scenario, we see a potential disruption of the Market by Echovai becoming the new market standard. In this case, we expect higher demand from the market and therefore an overgrowth of 1.5 p.p. in FY24/FY25, 1.0 p.p. in FY26/FY27 and 0.5 p.p. in FY28/FY29 before competitors are fully catching up. As main cost drivers, we expect material costs to grow with a 0.3 p.p. lower

³³ Fast Company

growth rate from FY26 onwards due to Echovai needing less material when being produced alongside a favorable raw material mix. Similarly, energy expenses are expected to develop with a 0.3 p.p. lower growth margin due to less energy being needed when producing Echovai due to its improved production process. We do not expect a significant effect on personnel expenses. Other expense items are also expected to remain at base level, except for transport costs and packaging material costs, which are expected to develop with their respective 80% percentile of historical ratios utilized for the base case forecast. This is due to Echovai's lighter weight and improved stacking and storage characteristics. We expect CAPEX levels to remain similar, internally changing the investments more towards Echovai related assets. Debt adjusts accordingly with the growth requirements from these assumptions. With Echovai disrupting the market, Vetropack sees a significant increase in profitability and core cash flow, significantly catapulting the expected core EV to CHF 1,252.2. After adding the non-core value (CHF 35.0) and net debt (CHF -263.4), the expected price per share amounts to CHF 51.6, indicating an implied premium of 67.1%.

ESG Analysis

Environmental, Social and Governmental (ESG) considerations are increasingly gaining prominence in today's business landscape. However, glass packaging manufacturers consume significant amounts of energy and raw materials, diminishing the sustainability of their operations. We analyzed Vetropack's ESG efforts and compared them to its main peers to obtain a relevant benchmarking. The company has ambitious goals, such as a 50% reduction of scope 1 & 2 emissions by 2032 compared to 2021 and a usage of 100% renewable energy by 2032. However, upon examining the current situation, it is evident that the company is notably performing worse than peers in 2023. Vetropack holds the lowest rating from the Carbon Disclosure project in the climate change category and from Sustainalytics. Closely analyzing selected metrics provides greater clarity regarding the ratings. In terms of environmental indicators, Vetropack emitted more scope 1 & 2 greenhouse gas emissions in tons per million sales, consumed more energy in megawatt hours per million sales and produced more waste in metric ton per million sales than all selected competitors in 2023. Vetropack held a position ahead of last only in terms of water consumption, measured in cubic meters per metric ton of glass produced. From a social perspective, Vetropack indicates the second-highest proportion of women in its workforce, yet it has the lowest representation of women on its board of directors. Regarding governance, the company adheres to compliance and ethics standards. However, its aforementioned share structure presents a significant

drawback. Overall, the table reveals a decrease in Vetropack's environmental sustainability in 2023 compared to 2022, suggesting that the company will need to make efforts to regain its previous level.

FY23

Company	CDP - climate rating	Sustainalytics rating	1 & 2 greenhouse gas t / 1m sales	Energy Mwh/ 1m sales	Waste in t / 1m sales	Water in m3 per metric ton of glass	% of women in headcount	% of women on Board of directors
Vidrala	B	18	644	2,686	16	0.45	15%	36%
Verallia	A-	15	686	2,865	17	0.56	19%	40%
Zignato Vetro	A-	12	607	2,329	9	0.93	35%	42%
Vetropack	C	19	726	3,056	91	0.87	24%	25%

Source: Company information

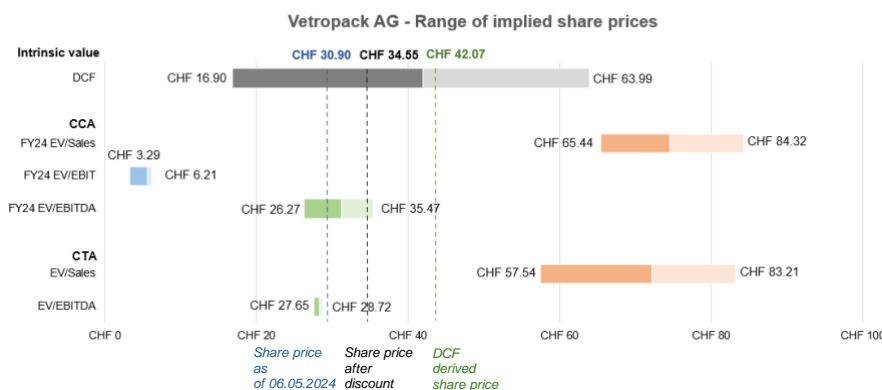
FY22

Company	CDP - climate rating	Sustainalytics rating	1 & 2 greenhouse gas t / 1m sales	Energy Mwh/ 1m sales	Waste in t / 1m sales	Water in m3 per metric ton of glass	% of women in headcount	% of women on Board of directors
Vidrala	n/a	n/a	773	3,106	13	0.36	14%	36%
Verallia	n/a	n/a	818	3,180	23	0.47	18%	40%
Zignato Vetro	n/a	n/a	706	2,502	10	1.23	29%	42%
Vetropack	n/a	n/a	679	2,850	n/a	0.94	24%	13%

Source: Company information

Final recommendation

Vetropack was facing strong headwinds in recent years as macroeconomic factors led to a spike in energy prices, dampened consumer demand and a downturn in Eastern Europe operations. Nevertheless, Vetropack possesses the fundamental strengths, cost adjustment abilities and innovative DNA necessary to regain its previous performance levels and advance further. This development is supported by sustainable product solutions and ongoing process efficiencies. Based on our analysis, the **DCF** implies a share price **CHF 42.07**, **comparable company valuation** of **CHF 31.28** and **comparable transactions** analysis of **CHF 28.35**. As we provide our recommendation of Vetropack for 31.12.2024, we see a certain overweight valuation of future developments in our DCF analysis, while the relative valuation overweighs the expected transitional year. Therefore, we applied a weighted average with **70%** applied to DCF, **15%** to comparable analysis and **15%** to transaction analysis. We further applied a **discount** of **10%** due to previously mentioned control issues, resulting in a **final valuation of CHF 34.55**. This represents a 11.8% increase from the May 6th, 2024 share price of CHF 30.90. Given the stock's apparent current undervaluation and an anticipated total return (including expected capital gains (CHF 1.0) and dividend yield (3.2%)) of 15.1% (rounding error) we assign a **BUY** rating to Vetropack.



Appendix

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
	Act	Act	Act	Act	Act	Act	Act	Act	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Core																	
Net sales from goods and services	601.7	631.5	690.7	714.9	662.6	816.5	899.4	898.8	880.8	912.7	943.3	975.3	1,007.2	1,040.3	1,075.3	1,109.9	1,145.7
% growth	-	5.0%	9.4%	3.5%	(7.3%)	23.2%	10.2%	(0.1%)	(2.0%)	3.6%	3.4%	3.4%	3.3%	3.3%	3.4%	3.2%	3.2%
COGS	(379.6)	(386.7)	(413.8)	(417.2)	(383.1)	(513.5)	(603.0)	(585.0)	(610.5)	(592.1)	(574.5)	(580.0)	(592.4)	(603.2)	(619.3)	(636.7)	(655.1)
thereof material expenses	(100.6)	(100.8)	(109.8)	(116.0)	(111.9)	(128.2)	(135.6)	(147.3)	(149.2)	(151.9)	(154.5)	(162.2)	(170.2)	(178.5)	(187.3)	(196.5)	(206.2)
thereof energy expenses	(90.0)	(88.9)	(95.7)	(94.6)	(89.1)	(143.5)	(252.2)	(241.7)	(211.4)	(181.2)	(150.9)	(147.8)	(141.5)	(136.4)	(135.2)	(133.9)	(132.7)
thereof personnel expenses [COGS]	(78.9)	(83.3)	(89.0)	(94.2)	(93.0)	(102.0)	(98.6)	(106.0)	(103.4)	(106.9)	(110.2)	(113.4)	(116.5)	(119.6)	(123.0)	(126.3)	(129.7)
thereof changes in inventory	(0.1)	(7.7)	(4.1)	2.4	15.4	(8.3)	21.4	40.1	(4.2)	(4.2)	(4.2)	4.7	2.9	4.6	5.6	5.7	5.3
thereof other COGS items	(110.0)	(106.0)	(115.2)	(114.8)	(104.5)	(131.5)	(138.0)	(130.1)	(142.3)	(147.9)	(154.6)	(161.4)	(167.2)	(173.2)	(179.4)	(185.6)	(191.9)
Core gross profit	222.1	244.8	276.9	297.7	279.5	303.0	296.4	313.8	270.3	320.6	368.8	395.3	414.8	437.1	455.9	473.3	490.5
% of Net sales	36.9%	38.8%	40.1%	41.6%	42.2%	37.1%	33.0%	34.9%	30.7%	35.1%	39.1%	40.5%	41.2%	42.0%	42.4%	42.6%	42.8%
% growth	-	10.2%	13.1%	7.5%	(6.1%)	8.4%	(2.2%)	5.9%	(13.9%)	18.6%	15.1%	7.2%	4.9%	5.4%	4.3%	3.8%	3.6%
SG&A	(122.7)	(123.8)	(138.1)	(144.2)	(139.9)	(153.1)	(158.6)	(171.8)	(166.1)	(170.0)	(173.5)	(178.9)	(184.2)	(189.8)	(195.6)	(201.4)	(207.3)
thereof personnel expenses [SG&A]	(63.2)	(66.8)	(71.4)	(75.5)	(74.5)	(81.7)	(79.0)	(84.9)	(82.9)	(85.7)	(88.3)	(90.9)	(93.3)	(95.9)	(98.6)	(101.2)	(103.9)
thereof other administrative and opex	(59.5)	(57.0)	(66.7)	(68.7)	(65.4)	(71.4)	(79.6)	(86.9)	(83.3)	(84.3)	(85.1)	(88.0)	(90.9)	(93.9)	(97.1)	(100.2)	(103.4)
Other income [core share]	8.9	7.0	8.3	8.4	9.0	11.0	9.9	12.6	10.5	10.9	11.2	11.6	12.0	12.4	12.8	13.2	13.6
Core EBITDA	108.3	128.0	147.1	161.9	148.6	160.9	147.7	154.6	114.7	161.4	206.6	228.1	242.6	259.7	273.1	285.1	296.9
% of Net sales	18.0%	20.3%	21.3%	22.6%	22.4%	19.7%	16.4%	17.2%	13.0%	17.7%	21.9%	23.4%	24.1%	25.0%	25.4%	25.7%	25.9%
% growth	n/a	18.2%	14.9%	10.1%	(8.2%)	8.3%	(8.2%)	4.7%	(25.8%)	40.8%	28.0%	10.4%	6.4%	7.1%	5.2%	4.4%	4.1%
Depreciation of tangible assets [core]	(53.9)	(61.2)	(69.3)	(74.7)	(73.4)	(81.1)	(70.3)	(72.4)	(84.2)	(87.0)	(92.5)	(99.4)	(105.8)	(110.5)	(115.1)	(119.7)	(124.4)
Amortisation of intangible assets [core]	(7.9)	(6.2)	(3.1)	(2.0)	(2.7)	(2.2)	(1.8)	(1.6)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)	(1.4)
Core result before taxes	46.5	60.6	74.7	85.2	72.5	77.6	75.6	80.6	29.1	72.9	112.6	127.2	135.3	147.8	156.6	163.9	171.0
% of Net sales	7.7%	9.6%	10.8%	11.9%	10.9%	9.5%	8.4%	9.0%	3.3%	8.0%	11.9%	13.0%	13.4%	14.2%	14.6%	14.8%	14.9%
% growth	n/a	30.3%	23.3%	14.1%	(14.9%)	7.0%	(2.6%)	6.6%	(63.9%)	150.7%	54.3%	13.0%	6.4%	9.3%	5.9%	4.7%	4.3%
Adjusted statutory taxes	(9.3)	(12.1)	(14.9)	(17.0)	(14.5)	(15.5)	(15.1)	(16.1)	(5.8)	(14.6)	(22.5)	(25.4)	(27.0)	(29.5)	(31.2)	(32.7)	(34.1)
Tax adjustments	1.6	(0.6)	0.8	3.2	9.4	3.0	0.6	(0.0)	-	-	0.0	(0.0)	0.0	-	(0.0)	0.0	(0.0)
Core result	38.8	47.9	60.6	71.4	67.4	65.2	61.1	64.5	23.3	58.4	90.1	101.8	108.3	118.3	125.4	131.2	136.9
% of Net sales	6.4%	7.6%	8.8%	10.0%	10.2%	8.0%	6.8%	7.2%	2.6%	6.4%	9.6%	10.4%	10.8%	11.4%	11.7%	11.8%	11.9%
% growth	-	23.4%	26.5%	17.9%	(5.6%)	(3.4%)	(6.2%)	5.5%	(63.9%)	150.7%	54.3%	13.0%	6.4%	9.3%	5.9%	4.7%	4.3%
Non-core																	
Income from non-core activities	6.7	7.3	7.5	8.3	18.0	7.1	18.6	14.1	7.7	7.9	8.2	8.5	8.7	9.0	9.3	9.6	10.0
Expenses from non-core activities	(1.8)	(1.6)	(3.1)	(1.6)	(1.4)	(1.2)	(1.8)	(2.5)	(1.8)	(1.9)	(2.1)	(2.2)	(2.3)	(2.5)	(2.6)	(2.7)	(2.9)
Depreciation and impairments of tangible assets	(1.4)	(1.3)	(1.2)	(1.0)	(0.9)	(1.1)	(3.2)	(1.7)	(0.9)	(0.9)	(0.9)	(0.8)	(0.8)	(0.8)	(0.7)	(0.7)	(0.7)
Extraordinary result	-	-	-	-	-	-	(31.4)	(0.5)	-	-	-	-	-	-	-	-	-
Non-core result before taxes	3.5	4.4	3.2	5.7	15.7	4.8	(17.8)	9.4	4.9	5.1	5.3	5.4	5.6	5.8	6.0	6.2	6.4
% growth	n/a	25.7%	(27.3%)	78.1%	175.4%	(69.4%)	(470.8%)	(152.8%)	(47.7%)	3.6%	3.4%	3.4%	3.3%	3.3%	3.4%	3.2%	3.2%
Adjusted statutory taxes	(0.7)	(0.9)	(0.6)	(1.1)	(3.1)	(1.0)	3.6	(1.9)	(1.0)	(1.0)	(1.1)	(1.1)	(1.1)	(1.2)	(1.2)	(1.2)	(1.3)
Tax adjustments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Non-core result	2.8	3.5	2.6	4.6	12.6	3.8	(14.2)	7.5	3.9	4.1	4.2	4.4	4.5	4.6	4.8	5.0	5.1
% growth	n/a	25.7%	(27.3%)	78.1%	175.4%	(69.4%)	(470.8%)	(152.8%)	(47.7%)	3.6%	3.4%	3.4%	3.3%	3.3%	3.4%	3.2%	3.2%
Financial																	
Financial income	3.3	0.7	0.6	0.9	0.6	0.8	0.5	1.1	3.0	2.4	2.3	2.2	2.2	2.1	2.0	2.0	1.9
Financial expenses	(0.3)	(0.5)	(0.6)	(0.4)	(0.3)	(1.5)	(4.4)	(8.9)	(9.2)	(10.5)	(11.3)	(10.5)	(8.4)	(5.9)	(3.1)	(0.8)	0.0
Net of currency exchange gains/losses	(1.5)	7.3	(3.8)	(4.1)	1.2	(5.8)	(3.8)	(3.1)	-	-	-	-	-	-	-	-	-
Financial result before taxes	1.5	7.5	(3.8)	(3.6)	1.5	(6.5)	(7.7)	(10.9)	(6.2)	(8.1)	(9.0)	(8.2)	(6.2)	(3.8)	(1.1)	1.1	1.9
Adjusted statutory taxes	(0.3)	(1.5)	0.8	0.7	(0.3)	1.3	1.5	2.2	1.2	1.6	1.8	1.6	1.2	0.8	0.2	(0.2)	(0.4)
Tax adjustments	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Financial result after taxes and before min	1.2	6.0	(3.0)	(2.9)	1.2	(5.2)	(6.2)	(8.7)	(5.0)	(6.5)	(7.2)	(6.6)	(5.0)	(3.0)	(0.8)	0.9	1.5
Minority interest from group companies	(0.2)	(0.4)	(2.0)	(0.7)	-	-	-	-	-	-	-	-	-	-	-	-	-
Financial result	1.0	5.6	(5.0)	(3.6)	1.2	(5.2)	(6.2)	(8.7)	(5.0)	(6.5)	(7.2)	(6.6)	(5.0)	(3.0)	(0.8)	0.9	1.5
Core result	38.8	47.9	60.6	71.4	67.4	65.2	61.1	64.5	23.3	58.4	90.1	101.8	108.3	118.3	125.4	131.2	136.9
Non-core result	2.8	3.5	2.6	4.6	12.6	3.8	(14.2)	7.5	3.9	4.1	4.2	4.4	4.5	4.6	4.8	5.0	5.1
Financial result	1.0	5.6	(5.0)	(3.6)	1.2	(5.2)	(6.2)	(8.7)	(5.0)	(6.5)	(7.2)	(6.6)	(5.0)	(3.0)	(0.8)	0.9	1.5
Total result	42.6	57.0	58.1	72.4	81.2	63.8	40.7	63.3	22.3	56.0	87.2	99.6	107.8	120.0	129.3	137.1	143.5

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
	Act	Act	Act	Act	Act	Act	Act	Act	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Core																	
Operating liqui funds	41.9	41.9	45.7	47.0	44.9	54.9	65.3	66.4	64.4	63.2	62.0	63.6	65.0	66.5	68.4	70.3	72.3
Accounts receivables	105.4	117.0	126.2	115.6	123.5	142.5	179.0	141.3	153.3	159.3	164.7	170.3	175.3	181.6	187.7	193.8	199.4
Other current receivables	13.1	10.4	9.1	10.2	13.6	16.4	31.3	36.0	27.5	21.6	15.2	15.7	16.2	16.7	17.2	17.8	18.3
Inventories	128.1	130.9	126.1	136.6	151.7	144.6	155.5	197.9	193.7	189.5	185.3	189.9	192.9	197.4	203.0	208.7	214.0
Prepaid expenses and accrued income	2.8	5.1	6.0	1.4	2.0	2.6	6.2	4.1	4.5	4.7	4.8	5.0	5.2	5.3	5.5	5.7	5.9
Core current assets	291.2	305.3	313.1	310.8	335.7	361.0	437.3	445.7	443.4	438.2	431.9	444.5	454.5	467.5	481.8	496.2	509.9
Deferred tax assets	3.2	2.4	1.4	1.5	1.7	2.3	2.8	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1	6.1
Tangible core assets	413.2	453.2	478.5	515.4	534	554.9	623.9	736.6	736.5	757.1	796.6	833.7	868.8	904.0	939.5	975.2	1011.3
Intangible core assets	12.3	7.8	6	6.5	5.9	4.7	3.3	4	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5	4.5
Core non-current assets	428.7	463.4	485.9	523.4	541.6	561.9	630	746.7	747.1	767.8	807.2	844.3	879.4	914.6	950.1	985.8	1021.9
Accounts payables	(80.0)	(78.4)	(87.3)	(87.6)	(88.0)	(138.2)	(209.0)	(160.5)	(146.9)	(133.4)	(119.8)	(122.9)	(124.7)	(127.7)	(131.3)	(135.0)	(138.4)
Other current liabilities	(18.9)	(21.9)	(20.3)	(23.1)	(28.4)	(27.2)	(25.9)	(26.9)	(28.0)	(29.0)	(30.0)	(31.0)	(32.1)	(33.1)	(34.2)	(35.3)	(36.5)
Accrued expenses and deferred income	(19.6)	(21.1)	(23.1)	(21.3)	(27.2)	(30.9)	(31.8)	(34.1)	(30.2)	(30.2)	(31.2)	(32.3)	(33.5)	(34.7)	(36.0)	(37.3)	(38.7)
Current provisions	(2.5)	(3.3)	(2.1)	(8.8)	(2.6)	(3.8)	(6.1)	(4.0)	(4.1)	(4.2)	(4.3)	(4.5)	(4.6)	(4.8)	(5.0)	(5.1)	(5.3)
Core current liabilities	(121.0)	(124.7)	(132.8)	(140.8)	(146.2)	(200.1)	(272.8)	(225.5)	(209.2)	(196.9)	(185.4)	(190.7)	(195.0)	(200.4)	(206.5)	(212.7)	(218.8)
Deferred tax liabilities	(18.9)	(21.4)	(19.5)	(16.4)	(15.2)	(15.8)	(15.3)	(15.2)	(6.1)	(6.1)	(6.1)	(6.1)	(6.1)	(6.1)	(6.1)	(6.1)	(6.1)
Other non-current liabilities	(1.8)	(1.6)	(1.5)	(1.2)	(1.3)	(0.8)	(0.7)	(0.5)	(0.7)	(0.7)	(0.7)	(0.8)	(0.8)	(0.8)	(0.8)	(0.9)	(0.9)
Core non-current liabilities	(20.7)	(23.0)	(21.0)	(17.6)	(16.5)	(16.6)	(16.0)	(15.7)	(6.8)	(6.8)	(6.8)	(6.8)	(6.9)	(6.9)	(6.9)	(7.0)	(7.0)
Core invested capital	578.2	621.0	645.2	675.8	714.6	706.2	778.5	951.2	974.6	1002.3	1046.9	1091.2	1132.1	1174.9	1218.5	1262.3	1306.0
Non-core																	
Provisions [current]	(0.5)	(0.4)	(0.5)	(0.7)	(0.7)	(0.8)	(0.6)	(0.8)	(0.7)	(0.8)	(0.8)	(0.8)	(0.9)	(0.9)	(0.9)	(0.9)	(1.0)
Provisions [non-current]	(18.4)	(19.5)	(19.2)	(19.7)	(19.7)	(18.3)	(17.0)	(15.4)	(16.0)	(16.6)	(17.1)	(17.7)	(18.2)	(18.8)	(19.4)	(20.0)	(20.6)
Non-core Liabilities	(18.9)	(19.9)	(19.7)	(20.4)	(20.4)	(19.1)	(17.6)	(16.2)	(16.8)	(17.4)	(17.9)	(18.5)	(19.1)	(19.7)	(20.3)	(20.9)	(21.6)
Tangible non-core assets	46.3	45.8	44.8	43.8	39.5	38.5	37.7	41.4	40.0	38.7	37.4	36.1	34.9	33.7	32.6	31.5	30.4
Other non-core assets	24.7	15.1	17.1	17	15.1	15.1	14.5	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2	14.2
Non-core Assets	71.0	60.9	61.9	60.8	54.6	53.6	52.2	55.6	54.2	52.9	51.6	50.3	49.1	47.9	46.8	45.7	44.6
Non-core invested capital	52.1	41	42.2	40.4	34.2	34.5	34.6	39.4	37.4	35.5	33.6	31.8	30.0	28.2	26.5	24.7	23.0
Financial																	
Marketable securities	1.9	10.9	0.7	0.4	-	-	-	-	-	-	-	-	-	-	-	-	-
Excess liqui funds	47.9	91.7	85.9	53.8	59.6	71.3	115.1	15.8	-	-	-	-	-	-	-	-	38.0
Financial debt	(74.7)	(76.3)	(62.3)	(22.0)	(44.8)	(37.5)	(178.8)	(255.7)	(258.8)	(248.5)	(223.9)	(195.9)	(160.3)	(117.3)	(69.8)	(17.9)	-
thereof short-term	0.5	12.4	53.9	0.3	5.5	11.5	10.2	3.3	7.3	7.6	7.9	8.1	8.4	8.7	9.0	9.2	-
thereof long-term	74.2	63.9	8.4	21.7	39.3	26.0	168.6	252.4	251.5	240.9	216.1	187.7	151.9	108.6	60.8	8.6	-
Net financials	(25.0)	26.3	24.3	32.2	14.8	33.8	(63.8)	(239.9)	(258.8)	(248.5)	(223.9)	(195.9)	(160.3)	(117.3)	(69.8)	(17.9)	38.0
Equity																	
Share capital	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8	19.8
Capital reserves	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3	0.3
Retained earnings	542.6	610.7	631.0	655.9	662.3	690.6	688.5	667.3	710.8	713.2	749.4	807.5	873.9	945.8	1,025.7	1,112.0	1,203.4
Net income	42.6	57.0	58.1	72.4	81.2	63.8	40.7	63.3	22.3	56.0	87.2	99.6	107.8	120.0	129.3	137.1	143.5
Minority interest	0.1	0.5	2.4	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Shareholder's equity	605.4	688.3	711.6	748.4	763.6	774.5	749.3	750.7	753.2	789.3	856.6	927.2	1,001.8	1,085.8	1,175.2	1,269.1	1,367.0
Total invested capital	630.3	662.0	687.4	716.2	748.8	740.7	813.1	990.6	1,012.0	1,037.8	1,080.6	1,123.0	1,162.1	1,203.1	1,245.0	1,287.0	1,329.0
Net financial	(25.0)	26.3	24.3	32.2	14.8	33.8	(63.8)	(239.9)	(258.8)	(248.5)	(223.9)	(195.9)	(160.3)	(117.3)	(69.8)	(17.9)	38.0
Equity	605.4	688.3	711.6	748.4	763.6	774.5	749.3	750.7	753.2	789.3	856.6	927.2	1,001.8	1,085.8	1,175.2	1,269.1	1,367.0

	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	FY2029	FY2030	FY2031	FY2032
	Act	Act	Act	Act	Act	Act	Act	Act	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast	Forecast
Core																	
Core result (NOPLAT)	47.9	60.6	71.4	67.4	65.2	61.1	64.5	23.3	58.4	90.1	101.8	108.3	118.3	125.4	131.2	136.9	
D&A from core assets	67.4	72.4	76.7	76.2	83.2	72.2	74.0	85.6	88.5	94.0	100.9	107.3	111.9	116.5	121.2	125.8	
CAPEX [core]	(67.1)	(115.0)	(123.1)	(59.0)	(118.6)	(191.8)	(241.3)	(86.0)	(109.1)	(133.5)	(138.0)	(142.4)	(147.1)	(152.0)	(156.9)	(161.9)	
Change in trade working capital	(3.4)	(1.7)	(2.0)	(8.3)	29.8	6.2	(58.9)	(21.4)	(15.3)	(14.7)	(7.3)	(6.1)	(7.9)	(8.1)	(8.0)	(7.6)	
Change in other working capital	1.8	1.6	5.4	4.0	(1.2)	(17.9)	1.2	7.3	8.0	9.4	(0.1)	0.2	0.1	(0.2)	(0.2)	(0.2)	
Change in provisions	3.3	(3.1)	3.6	(7.4)	1.8	1.8	(2.2)	(9.0)	0.1	0.1	0.1	0.1	0.2	0.2	0.2	0.2	
Change in long-term liabilities	(0.2)	(0.1)	(0.3)	0.1	(0.5)	(0.1)	(0.2)	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Historic positions	-	-	(5.3)	(42.8)	(9.6)	-	-	-	-	-	-	-	-	-	-	-	
Cash flow from core activities	49.9	14.8	26.1	30.1	50.6	(68.4)	(162.7)	(0.1)	30.6	45.5	57.5	67.5	75.5	81.8	87.4	93.2	
Cash flow from core activities								(0.1)	30.6	45.5	57.5	67.5	75.5	81.8	87.4	93.2	
(-) core result								(23.3)	(58.4)	(90.1)	(101.8)	(108.3)	(118.3)	(125.4)	(131.2)	(136.9)	
Change in invested capital								(23.4)	(27.7)	(44.6)	(44.3)	(40.8)	(42.8)	(43.6)	(43.8)	(43.7)	
Non-core																	
Non-core result (NOPLAT)	3.5	2.6	4.6	12.6	3.8	(14.2)	7.5	3.9	4.1	4.2	4.4	4.5	4.6	4.8	5.0	5.1	
Depreciation from non-core assets	1.0	1.0	1.0	0.9	0.9	0.9	0.9	0.9	0.9	0.9	0.8	0.8	0.8	0.7	0.7	0.7	
Change in provisions [non-core]	(3.2)	3.3	(1.7)	6.7	0.5	1.2	(4.1)	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	0.6	
CAPEX [non-core]	0.2	0.0	0.1	0.1	0.0	0.1	4.9	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4	0.4	
Historic positions	2.6	10.0	0.9	(13.7)	3.9	25.4	(1.9)	-	-	-	-	-	-	-	-	-	
Impairments	0.3	0.2	-	-	0.3	25.7	(1.1)	-	-	-	-	-	-	-	-	-	
Gain from disposal fixed assets	0.4	3.1	0.2	(11.8)	(0.2)	0.5	(0.2)	-	-	-	-	-	-	-	-	-	
Other non-cash items	(0.3)	(1.3)	0.4	(4.6)	3.8	(0.8)	(0.5)	-	-	-	-	-	-	-	-	-	
(-) changes in marketable securities	(0.7)	10.3	0.3	0.4	-	-	-	-	-	-	-	-	-	-	-	-	
Investments and sales of financial operating assets	2.9	(2.3)	-	2.3	-	-	(0.1)	-	-	-	-	-	-	-	-	-	
Cash flow from non-core activities	4.1	16.9	4.9	6.6	9.1	13.4	7.3	5.9	6.0	6.1	6.2	6.3	6.4	6.6	6.7	6.8	
Cash flow from non-core activities								5.9	6.0	6.1	6.2	6.3	6.4	6.6	6.7	6.8	
(-) non-core result								(3.9)	(4.1)	(4.2)	(4.4)	(4.5)	(4.6)	(4.8)	(5.0)	(5.1)	
Change in non-core invested capital								2.0	1.9	1.9	1.8	1.8	1.8	1.8	1.7	1.7	
Financial																	
Financial result (excl. minority interests)	6.0	(3.0)	(2.9)	1.2	(5.2)	(6.2)	(8.7)	(5.0)	(6.5)	(7.2)	(6.6)	(5.0)	(3.0)	(0.8)	0.9	1.5	
Change in short-term financial debt	(0.4)	(12.1)	(44.6)	3.2	0.2	(2.7)	(4.0)	4.0	0.3	0.3	0.3	0.3	0.3	0.3	0.3	(9.2)	
Change in long-term financial debt	(2.1)	0.0	4.8	(10.1)	(6.9)	147.8	94.1	(0.9)	(10.6)	(24.8)	(28.3)	(35.9)	(43.2)	(47.8)	(52.2)	(8.6)	
Dividends	(15.3)	(17.8)	(19.8)	(25.8)	(25.8)	(25.8)	(19.8)	(19.8)	(19.8)	(19.8)	(19.8)	(29.1)	(33.2)	(35.9)	(40.0)	(43.1)	
Historic positions	(0.1)	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Cash flow from financing activities	(11.8)	(33.1)	(62.5)	(31.5)	(37.7)	113.2	61.6	(21.6)	(36.7)	(51.6)	(63.7)	(73.8)	(81.9)	(88.3)	(94.1)	(62.1)	
FX changes	1.7	(0.7)	0.8	(1.5)	(0.3)	(4.0)	(4.3)	-	-	-	-	-	-	-	-	-	
Change in liqui funds	43.9	(2.1)	(30.7)	3.7	21.7	54.1	(98.1)	(15.8)	(0.0)	0.0	(0.0)	-	0.0	(0.0)	0.0	38.0	
Liqui funds as of 01.01.	89.7	133.6	131.5	100.8	104.5	126.2	180.3	82.2	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	
Liqui funds EoY as of 31.12.	133.6	131.5	100.8	104.5	126.2	180.3	82.2	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	104.4	

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Buy	Expected total return (including expected capital gains and expected dividend yield) of more than 10% over a 12-month period.
Hold	Expected total return (including expected capital gains and expected dividend yield) between 0% and 10% over a 12-month period.
Sell	Expected negative total return (including expected capital gains and expected dividend yield) over a 12-month period.

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