FINANCING A SUSTAINABLE FIRM

INSIGHTS FROM THE OATLY IPO

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Abstract

In this thesis, we analyse Oatly's decision to conduct an IPO to raise long-term financing. We note that Oatly was not able to meet high customer demand for its products due to significant production capacity constraints and hence needed to decide on how to finance its growth ambitions. Our main ambitions are to understand Oatly's thought process and the relevance of Oatly's inherent sustainability in this thought process. Furthermore, we want to evaluate alternative financing instruments and derive takeaways for other sustainable firms. For this purpose, we conduct a case study that incorporates stakeholder interviews, quantitative analyses, and academic research. We find that the main motivations for an IPO were the high amount of total funding it provided, the desire of shareholders to partly exit their positions and make use of the flexibility in the public market, and the public attention attached to going public. Other long-term financing alternatives were mainly discarded by Oatly for not fulfilling these criteria. The financing decision was significantly affected by Oatly's sustainability characteristics as the firm needed to ensure that growth ambitions and core values remain aligned. We further derive four general takeaways for other sustainable firms seeking long-term financing: First, ESG firms are not assessed by the market's inclination towards sustainability, but on traditional firm capabilities such as growth potentials and risk mitigation. Second, early investors should be chosen based on their capabilities with future financing preferences in mind. Third, long-term corporate finance decisions may not resemble observations of other firms in the past and should hence be made on a case-by-case basis as there is no one size fits all approach. Fourth, short-termism and public scrutiny may be particularly prevalent due to higher uncertainty in evolving markets and a strong emphasis on sustainable core values and should not be underestimated.

Keywords: Oatly, IPO, Corporate Finance, Sustainability, Sustainable Finance

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List of Abbreviations

ADR	American Depository Receipt
ADS	American Depository Share
CAPEX	Capital Expenditures
CAR	Cumulative Abnormal Return
DCF	Discounted Cash Flow
EBIT	Earnings Before Interest and Taxes
EBITDA	Earnings Before Interest, Taxes, Depreciation, and Amortization
ESG	Environment, Social, Governance
ICMA	International Capital Market Association
IPO	Initial Public Offering
LMA	Loan Market Association
LSTA	Loan Syndications and Trading Association
KPI	Key Performance Indicator
PE	Private Equity
RCF	Revolving Credit Facility
SEC	Securities and Exchange Commission
SLL	Sustainability-Linked Loan
SLB	Sustainability-Linked Bond
SLDI	Sustainability-Linked Instrument
Spruce Point	Spruce Point Capital Management, LLC
SPT	Sustainability Performance Target
SRCF	Sustainability Revolving Credit Facility
VC	Venture Capital
WACC	Weighted Average Cost of Capital
WC	Working Capital
YE	Year End

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1. Introduction

Oatly, the Swedish plant-based dairy producer, mostly known for its oat milk products, is one of the firms that has been under investigation by many investors in 2021. Oatly conducted an initial public offering (”IPO”) on the 20th of May 2021 and got publicly listed on the Nasdaq stock exchange in New York. The firm stood out as one of the first publicly listed firms in the food & beverage sector that commits itself to a fully sustainable range of products. They embrace various current environmental, societal, and governmental (”ESG”) matters including sustainability through reduced carbon emissions, animal welfare through plant-based products, and accessibility through providing dairy-like products that are consumable by people with lactose intolerance.

When we, the authors of this thesis, discussed the decision of Oatly to go public, we noticed that only little research has so far been conducted on the financing decisions of sustainable firms, which aroused our interest. We also noticed an increasing number of such firms emerging as a result of the enhanced relevance of ESG matters in the public, finance, and corporate sphere. We believe that the Oatly IPO sets an interesting precedent for firms with a high inherent degree of sustainability from which they may infer helpful insights when seeking financing. For this reason, we decided to dedicate our master thesis to this matter by answering the following research questions:

What was the thought process of Oatly when deciding to go public and how did Oatly’s inherent sustainability affect its decisions?

What were the advantages and drawbacks compared to other financing methods?

*Which conclusions can be generated from Oatly’s IPO for other sustainable firms when seeking financin*g?

To answer these questions, we propose to use the case study methodology as it serves best to illustrate Oatly’s thought process. The case study builds on interviews that we conducted with key stakeholders. To supplement this, we further embed academic research as well as quantitative analyses. The thesis itself serves three main purposes. First, we want to shed light on the key considerations and the thought process of sustainable firms opting for an IPO. By elaborating on the thought process of Oatly and evaluating alternative financing methods, we will be able to infer considerations that may apply to other sustainable firms subject to capital needs. Since academic research with regards to corporate finance decisions of sustainable firms as of 2022 is mostly limited to the investor rather than the corporate perspective, we will contribute to the academic body of research by evaluating one of the key IPOs in this context. Second, we want to inspire further academic research on this topic. Given the increasing relevance of sustainability in the corporate world, we expect an increasing number of sustainable firms to originate and ponder about corporate financing decisions and argue that such firms would benefit from increased academic coverage. Lastly, we want to provide academic institutions with material that can be adapted to a teaching case study, acknowledging the current lack of teaching cases on the investigated matter.

As pointed out previously, our main motivation for pursuing this topic is the increasing relevance of ESG in the public, corporate, and finance spheres which we briefly want to illustrate. In the public sphere, we have witnessed vocal movements such as Fridays for Future and Black Lives Matter advocating for radical progress on ESG matters. We observed that issues revolving around climate change, racial discrimination, gender inequality, and many more have severely influenced the political landscape and public discussions in the Western world. In the corporate sphere, Garside (2021) exemplarily found that corporates increasingly embrace ESG matters, as global investments in said matters have almost three-folded from 2012 to 2018 alone with an increase from \$11.35 trillion to \$30.70 trillion. Another study from McKinsey (2020) shows that both investment professionals and company executives agreed that ESG programs can create short-term and long-term value for firms through various dimensions, such as corporate reputation, talent acquisition, growth opportunities, risk mitigation, and meeting society's increasing ESG expectations. In the finance sphere, we observed that both private and institutional investors started assessing investments under consideration of ESG factors with the means of internal ESG frameworks as well as independent external ESG ratings. The share of sustainable assets under management from total assets under management has grown from 28% in 2016 to 36% in 2020 (Norrestad, 2021a) with the main reasons for investors to conduct more ESG-compliant investments being brand and reputation, external stakeholder requirements, and improved long-term returns (Norrestad, 2021b). We believe that Oatly tangibly captures those three spheres, as the firm embraces public concerns revolving around sustainability and animal welfare, executes various corporate initiatives to promote internal ESG efforts, and serves as an illustrative example of how investors nowadays approach ESG-compliant firms.

2. Case Background

2.1. Corporate History of Oatly

This section serves to point out the major milestones of Oatly's corporate history. It discusses the most important financing rounds, the shift in the perception of Oatly's attributes, and the historic growth divers which we deem relevant in the context of Oatly's financing decision that we portray in our case. While the early financing and growth history of Oatly is not fully publicly communicated by the firm, we reconstructed the major components through various online sources and stakeholder interviews.

2.1.1. The Origins of Oat Milk (1963 – 1993)

The initial steps for what is today known as Oatly were made in 1963 when Professor Arne Dahlqvist from Lund University discovered the underlying factors of lactose intolerance (LTH, 2015). Individuals with this condition lack the ability to produce enough lactase, a digestive enzyme, that helps to break down lactose, which is a common sugar found in dairy products. This condition can lead to symptoms such as bloating, diarrhoea, and abdominal pain when consuming dairy products (John Hopkins Medicine, n.d.). Lactose intolerance is estimated to affect 68% of the global population (Storhaug et al., 2017). It is particularly prevalent in regions such as the Middle East as well as Southern and Eastern Asia where the local populations were historically non-active in agricultural dairy activities. In contrast, lactose persistence nowadays mainly dates back to the dairy farming practices of ancestors (Simoons, 1978). Rickard Öste, a student of Dahlqvist in the 1970s, became aware of the market potential of a lactose-free milk alternative given the importance of milk in the nutrition of most Europeans back then as well as the large global prevalence of lactose intolerance. As an assistant professor at the Department of Applied Nutrition and Food Chemistry of Lund University in the early 1990s, Öste went on to develop an oat-based, lactose-free milk alternative resembling regular milk in terms of flavour and nutrition (LTH, 2015). Oat was chosen as a suitable plant-based ingredient since it was abundantly available in Sweden.

2.1.2. Foundation of Ceba Foods and First Product Launch (1994 – 2000)

Rickard Öste, together with his brother Björn, proceeded to found Ceba Foods AB in 1994 to commercialize Rickard's oat-milk innovation. Besides creating an alternative for individuals with lactose intolerance, the decision was also taken under the consideration of growing public concerns for health, as oat is considered to have positive cardiovascular and digestive effects on the body and to be a good source of fats and proteins (Krampe & Fridman, 2022, pp. 2–4). The benefits of animal welfare and environmental impact were less pronounced as selling point and societal concerns at this time. Ceba Foods AB launched its first oat products in the late 1990s and early 2000s in various markets focusing on its home base in Scandinavia as well as the U.K.

2.1.3. The First Outside Financing and Growth Ambitions (2001 – 2011)

In 2001 and 2002, Oatly is assumed to have received its first external financing amounting to SEK40 million from Carnegie and Industrifonden which included equity financing as well as debt financing through a convertible loan (Carnegie, 2001; Industrifonden, 2016). This capital was used to finance the first growth of the firm including its European internationalization efforts and also marked the beginning of the Oatly brand which was from then used to advertise the products (Landing & Wamfors, 2021; Oatly, 2021d, p. 4). According to Thomas Görling (personal communication, March 25, 2022), who accompanied Oatly as an investor with Industrifonden, the main investment hypothesis in the early 2000s put only little emphasis on Oatly's sustainability aspect. As the public mindset was less aware of the importance of sustainability around this time, the investors mostly appreciated the quality of the product itself and its compatibility with a gluten- and lactose-free diet.

In 2006, Ceba Foods AB renamed itself to Oatly AB and recorded annual sales of around SEK100 million through approximately 10 million litres of oat produce. That year, Oatly raised SEK72 million via equity financing provided from both previous investors Carnegie and Industrifonden as well as from new investors including Pågengruppen and Östersjöstiftelsen. This financing was mainly used to build a factory in Landskrona, Sweden at costs of approximately SEK90 million (Industrifonden, 2006). It allowed Oatly to conduct the oat milk production process on their own, which was previously outsourced to external partners, pointing to margin improvements. Additionally, it increased the capacity from 10 million litres of annual produce to 30 million litres, enabling further growth potentials by removing capacity constraints (Oatly, 2006). Notably, as per the official press release of this financing round (Industrifonden, 2006), the investment hypothesis was still based on Oatly's product quality and health impacts but did not revolve around environmental or animal welfare concerns.

2.1.4. Rebranding, Accelerated Growth and Major JV Investment (2012 – 2018)

The origin of Oatly's shift in marketing away from a pure focus on the product and health perspective dates back to the year 2012 and the appointment of Toni Petersson as CEO. Oatly's annual sales when Petersson took over amounted to SEK199 million in 2012, corresponding to a 12% CAGR since 2006 (Ridder, 2021). He recognized that Oatly has unused potential that could be unleashed with a change in brand perception, as shown illustratively by one of his quotes: "You can have the most beautiful product in the world but it is worthless if you don't have the strategy and execution. With Oatly, what I kept asking myself was: 'How do we make this business relevant to people?' [...]" (Murray, 2019). Petersson initiated various outspoken and aggressive marketing activities that ultimately rebranded Oatly to what it is known as today. Amongst others, he was involved in developing the recognizable packaging, various unusual TV advertisements, and reorienting the brand towards younger, trendier milk drinkers. According to Oatly (Oatly, 2021c, p. 5), his appointment was substantial in building a food company with core values of sustainability and health. The provocative and unconventional marketing that ensued Petersson's appointment can be exemplarily illustrated by Oatly's campaigns advocating non-dairy milk with the slogan "It's like milk but made for humans", where Oatly openly attacked traditional dairy producers by implying that drinking cow milk is dangerous (Chiorando, 2020). While these campaigns brought significant public attention, Oatly has also been subject to lawsuits initiated by dairy producers for misleading and disparaging advertisements, which led to fines and bans on further use of a number of marketing expressions (Oatly, 2021c, p. 31).

Leading up to a new major financing round in 2016, Oatly doubled its annual revenue growth rates under Petersson by being present in more than 20 countries with revenues of SEK475 million at the end of 2016, corresponding to a 24% CAGR since 2012 (Ridder, 2021). In summer 2016, they were looking for further financing with the goal of tripling capacity in the existing Landskrona plant as well as expanding into new markets outside of Europe, namely the U.S. and Asia. According to press reports, Oatly was open to selling a minority or majority stake for these goals. At this point, Oatly was valued at roughly SEK1 billion by sell-side investors (Thunell et al., 2016). Ultimately, Oatly received an undisclosed investment sum in December 2016 from Nativus, a Joint Venture ("JV") consisting of the Chinese state-owned holding company China Resources and the Belgian family-owned investment company Verlinvest, backed by the founder family of the AB-InBev brewery group. The exact stake at the time of investment is unclear, but the JV held a majority share in Oatly leading up to the IPO. Apart from the financial capital to finance the production expansion, the two new investors provided Oatly with significant insights into the added target markets as well as experience in building a global consumer brand (Industrifonden, 2016; Verlinvest, 2016). China Resources was considered as a particularly helpful partner for the expansion to China and Verlinvest was seen as an experienced partner in the beverage industry due to its links to the AB-InBev group (C. Hanke, personal communication, February 25, 2022). While all previous shareholders retained stakes in Oatly, some of them including Industrifonden sold most of their shares. According to Görling (personal communication, March 25, 2022), this investment marked another milestone in Oatly's shift from advertising a good and healthy product towards embracing sustainability and animal welfare. This was also the first time, where the affiliated press release (Verlinvest, 2016) of an Oatly investment primarily discussed Oatly's sustainability impact.

The expansion into the new markets started soon after the investment round. In 2017, Oatly entered the U.S. market through a novel foodservice strategy, where they targeted coffee shops and baristas first. By partnering up with these shops and providing them with suitable oat milk products, that amongst others allow to froth milk for various coffee variations, Oatly managed to build brand recognition amongst coffee shop guests. Once having a reputation amongst retail customers, Oatly proceeded to place its products in regular retail shelves in 2018 (Oatly, 2021f, p. 8; Safdar & Newman, n.d.). Also in 2018, Mainland China and Hong Kong were entered through a similar strategy with an even higher focus on the foodservice segment. This strategy was further complemented by selected partnerships such as the e-commerce platform Tmall and coffee shop chain Starbucks. Oatly also relaunched its product in several key European markets including the U.K. in 2016 and Germany in 2018, where they also represent the highest-grossing oat milk brand in both markets (Oatly, 2021e, p. 71).

With these market expansions, Oatly was ready to capture the increasing global demand for plant-based dairy products. The subsequent events from 2019 onwards are in the scope of the case in *Section 4*.

2.2. Business Model of Oatly

This section provides a general overview of the business model and activities of Oatly at the time of its F-1 IPO filing in April 2021. It serves to give the reader an understanding of the information that was provided to potential investors in light of Oatly's roadshow and its May 2021 IPO. As defined by Hayes (2020), the "SEC Form F-1 is a filing with the Securities and Exchange Commission ("SEC") required for the registration of certain securities by foreign issuers". The form corresponds to what is commonly referred to as IPO prospectus. It serves as a detailed document with the aim to help investors make informed investment decisions (Murphy, 2021). It is important to denote that all the following information is extracted, paraphrased, and summarized from Oatly's April 2021 F-1 IPO filing (Oatly, 2021c). While such a filing must follow extensive rules set by the SEC, it is targeted to arouse investors and as such framed accordingly. However, expressing the business model and activities of Oatly as portrayed in the IPO prospectus seems sensible given that investors had to make an investment decision based on it.

Oatly's Purpose. Oatly's vision encompasses a food system that contributes to both the people and the planet. They aim to transform the food industry and particularly address the demographics categorized as *Generation Z* and *Millennials* and their respective consumer demand for sustainability and health, which Oatly sees as the main drivers in the changing consumer landscape. Oatly furthermore emphasizes its role as an innovator and often advertises its brand through provocative and conversation-sparking media content (Oatly, 2021c, pp. 1–2).

Oatly's Sustainable Impact. Oatly points out that a litre of its non-dairy produce reduces greenhouse gas emissions, land usage, and energy consumption by 80%, 79%, and 60% respectively compared to cow milk. They also claim to have implemented a sustainability agenda across the entire value chain, as exemplarily demonstrated by utilizing an electric truck fleet for commercial routes and having closed a sustainability-linked credit facility. Oatly is also planning to expand the number of production facilities with respect to the proximity to key markets, which will further reduce carbon emissions from logistics (Oatly, 2021c, pp. 2, 9, 111).

Oatly's Market. Oatly quantifies the global dairy market and global milk market as of 2020 at $592 billion and $179 billion with expected five-year CAGRs of 5.9% and 6.6% respectively. The plant-based dairy market is estimated at $18 billion in 2020 representing a 3% share of the global dairy industry. Here, plant-based milk is comparatively developed with a 9% share of the global milk market, whereas other plant-based dairy products are estimated to have a share of less than 1% versus their respective dairy segments. Besides oat, the plant-based dairy market also comprises other alternative sources with the two most important ones being soybean and almond. As of year-end ("YE") 2020, Oatly is present in the EMEA, Americas, and Asia regions. They denote significant growth potentials in plant-based dairy alternatives across all regions, being led by sustainability and health concerns of consumers in all regions and a high share of lactose intolerance particularly in the Asian market (Oatly, 2021c, pp. 6–8).

Oatly's Products. Besides oat milk that is available in different variants, e.g., varying fat levels, Oatly offers oat-based frozen desserts, yoghurts, cooking products, and ready-to-go drinks. The exact product offering varies by location according to the respective consumer preferences. Oatly aims to continuously improve existing and introduce new oat-based products with respect to consumer demand by leveraging its market leadership and long-time experience in the plant-based dairy market. The products typically mirror existing dairy products in look, feel, taste, and function, which serves as a lever to convert dairy consumers to Oatly's oat-based alternatives (Oatly, 2021c, pp. 101–104).

Oatly's Sales Channels. Oatly's sales are distributed through three main channels: foodservice, food retail, and e-commerce. Foodservice comprises sales mainly to specialty coffee shops, coffee chains, and tea chains with notable partners being Starbucks in the U.S., HEYTEA in China, and Espresso House in the Nordics. As of YE20, Oatly had more than 32,200 global partnerships within this channel, with roughly 12,500 in Europe and 10,000 respectively 9,700 in the U.S. and Asia. Food retail comprises sales to customers from grocery stores, where partnerships with leading retailers have been established in all major regions. As of YE20, Oatly products are distributed through roughly 59,700 retail stores with a notable focus on Europe with 46,000 stores and a smaller footprint within the U.S. and Asia with 7,500 and 6,200 stores each respectively. Lastly, e-commerce comprises all online sales of Oatly products to customers. While some main products are sold by Oatly directly on its webpage varying by geography, Oatly also established various partnerships with both global e-commerce platforms such as Amazon and regional platforms such as Tmall and JD in China. Particularly within the Chinese market, the e-commerce channel has significantly attributed to Oatly's growth (Oatly, 2021c, pp. 108–109).

Oatly's Supply Chain. Oatly sources its oat from five suppliers located in Belgium, Malaysia, Sweden, and the U.S. They then make use of three supply models: co-packing, hybrid, and end-to-end manufacturing. As of YE20, the shares of each model by total volume were 52%, 24%, and 24% respectively. The first two methods both include the production of the oat base by Oatly itself where filling and mixing are conducted by a third-party partner. With co-packaging, the oat base is transported manually by trucks to the partner, whereas with hybrid the transport is conducted through pipelines to a nearby partner plant. The end-to-end model comprises all activities at the same Oatly-operated plant and provides the highest margins through the highest flexibility, favourable economics, and highest scale efficiencies of all three methods. As of YE20, Oatly operated one plant each in Sweden, the Netherlands, and the U.S. with an annual production capacity of 301 million litres of finished goods. Oatly aims to expand its capacity to 1.4 billion litres by the end of 2023 (see historic and forecasted production levels in *Appendix 1*) through one additional plant in Europa, two additional plants in the U.S., and three plants in Asia (see map in *Appendix 2)*. By producing in closer proximity to consumers, Oatly aims to reduce costs through savings on transportation and lower its environmental footprint (Oatly, 2021c, pp. 107–109).

Oatly's People. As of YE20, Oatly employed 792 employees globally with the majority of 553 being employed within the EMEA region. Within the key functions of Oatly's competitive advantage, 219 employees were in the production, supply chain, and operations department, 54 in innovation management and R&D, and 51 in marketing and branding. As surveyed in an internal study in 2020, 81% of employees stated that Oatly's sustainability focus was a key reason to apply for their jobs and 91% consider Oatly as an global leading example in sustainability (Oatly, 2021c, pp. 112–113).

2.3. Sustainability-Linked and Green Debt Instruments

In this section, we will introduce the current state of the green and sustainable debt market. Our focus will be on sustainability-linked debt instruments ("SLDIs") as they are the most relevant instrument for Oatly in the context of this case.

2.3.1. Current State of Green-Debt Financing Instruments

Green and sustainable debt financing has been increasingly important in the years leading to Oatly´s IPO with the yearly issuing amount of green, social and sustainability bonds surpassing $1.0 trillion in 2021 up from about $100 billion in 2016 (Harrison et al., 2022). The current sustainable debt finance market consists of five major types of instruments:

The first and most established instrument here is green debt. A framework for green bonds was introduced in 2014 by the International Capital Market Association ("ICMA") (ICMA, 2014), followed by the principles for green loans in 2018 by the Loan Market Association ("LMA") (LMA, 2018). Both green bonds and green loans have strong criteria tying their proceeds to predefined green projects. Since then, similar instruments applicable for sustainable and social projects were introduced (ICMA, 2021a, 2021b) representing the next two biggest instruments. In 2019, the Loan Syndications & Trading Association ("LSTA") introduced the guidelines for sustainability-linked loans ("SLLs") (LSTA, 2022), followed by the ICMA with the respective guidelines for sustainability-linked bonds ("SLBs") for the public market (ICMA, 2020), which are both classified as SLDIs. We will discuss SLDIs as the fourth major instrument in the following section. Lastly, with the issue of the *Climate Transition Finance Handbook* in 2020, the LCMA sought to make transitionary debt instruments available for companies that are traditionally not regarded as environmentally friendly but are in the process of improving their ESG impact.

To put the current relevance of these instruments into context, we denote that green, social and sustainability bonds still accounted for 88% of new issues of all five instruments in 2021, while SLBs were by far the fastest-growing segment increasing from $11.4 billion (2%) in 2020 to $118.8 billion (11%) in 2021, clearly indicating the immense interest in SLDIs. We use numbers of the bond market as there is no reliable long-term data for the private loan market.

2.3.2. Characteristics of Sustainability-Linked Instruments

The general purpose of an SLDI as stated in the principles for SLLs and SLBs (ICMA, 2020) is to incentivize borrowers to improve their overall sustainability footprint by aligning these goals with financial benefits. Both the principles for SLLs and SLBs are voluntary guidelines providing a framework for borrowers and lenders. Since they are very similar in approach, except for higher reporting requirements for SBLs, we will cover them once and refer to both instruments as SLDIs. Generally, SLDIs follow five core characteristics in their structure and design.

The first component is the selection of key performance indicators (“KPIs”). The company must select suitable KPIs that measure their impact on the environment. KPIs should be material to the borrower’s overall sustainability strategy, business, and industry. Second, the sustainability performance targets (“SPTs”) need to be calibrated. This means that the specific targets for each KPI the lender seeks to accomplish during the lifetime of the financial instrument need to be defined. Here, it is essential that the targets are ambitious, meaning that the targets must go beyond existing business plans or sustainability strategies and be a step up compared to day-to-day business activities. Third, the SLDI must include variabilities in its characteristics. These changes in terms must be coupled with the achievement or failure to meet the defined SPTs. The most commonly used characteristics are a change in margin, coupon, or interest rate in the instrument. Fourth, the borrower should make regular reporting material available to the involved lenders. Lastly, the performance on the SPTs must be confirmed by external and independent reviewers at least once a year.

2.3.3. Academic Research on Sustainability-Linked Debt Instruments

Since the field of SLDIs is relatively new, there is currently little academic research available regarding the actual costs of these instruments, their environmental impact or potential risks linked to these instruments.

One of the few papers addressing this topic is by Kölbel & Lambillon (2022) which shows three major findings regarding SLBs. First, the authors find that the costs of the sustainability improvement are usually borne by the investors in these instruments while the issuers mostly benefit from a potential premium. Second, the researchers find that SLBs do have a positive incentive effect on the sustainability of most issuers by offering reduced costs while other companies not experiencing these cost benefits often issue these instruments to signal their efforts towards improving sustainability. Lastly, SLBs sometimes allow for a free lunch as the premium for the issuer often outweighs the potential costs and penalties. Therefore, SLBs come with the risk of incentivizing greenwashing.

SLLs have outgrown green debt instruments in the first half of 2021 with SLLs amounting to $350 billion being issued in this time period while green loans and green bonds together only amounted to $244 billion (Wass, 2021). One potential reason for the high demand for SLL compared to green debt instruments is the ability to structure the instrument as revolving credit facilities (“RCFs”) which was a major advantage since many companies had a strong demand for a flexible line of credit as emergency financing, especially against the impacts of the covid-19 crisis (Turner, 2020).

Beyond the aforementioned papers and news coverage, there is little academic research covering SLDIs. Thus, we believe that depicting an individual use case of an SLL in form of this case study is helpful to build an understanding of the usage of these instruments.

2.4. Listing at Nasdaq (New York)

In this section, we will introduce the concept of foreign listings, their impact on valuation, and the costs of IPOs as those were important considerations in Oatly´s decision to go public at the Nasdaq New York, outlined in *Section 4.3.1.* Please refer to *Appendix 3* & *Appendix 4* for further information about the IPO process and reporting requirements connected to an American Depository Receipt ("ADR") IPO.

2.4.1. Fundamentals of American Depository Receipts

ADRs provide an opportunity for foreign companies to list on U.S. stock exchanges in a simple way. The first ADR was created in 1927 by JPMorgan for the U.K. department store company Selfridges Provincial Stores Limited (JPMorgan, 2007) and the instrument has since been continuously improved. An ADR is "a negotiable certificate that evidences an ownership interest in American Depositary Shares ("ADSs") which, in turn, represent an interest in the shares of a non-U.S. company that have been deposited with a U.S. bank" (SEC, 2012). In detail, that means that a U.S. bank, the depository bank, issues a new instrument, the ADR, that is available on the U.S. stock exchange and represents ownership of a certain, predefined number of shares of a foreign company. In turn, the foreign company deposits the respective number of shares, the ADSs, with the depository bank directly, or a custodian bank. These new ADRs then can freely be traded on the respective stock market, similar to regular shares. ADRs are always denominated in U.S. dollars. The number of shares they represent can differ between ADRs and is often chosen based on marketing considerations to make the instrument attractive to American investors (SEC, 2012).

There are two broad categories of ADRs. Sponsored ADRs are ADRs that are issued in cooperation between the depository bank and the foreign issuer with an extensive agreement that covers issues such as voting rights, dividend distribution and share ratio. Another category are unsponsored ADRs which are issued unilaterally by a U.S. bank, owning the respective number of shares. Due to regulatory requirements, only sponsored ADRs can be listed on U.S. stock exchanges which makes them the more favoured instrument (Darrow et al., 2008, p. 5). Depending on specifications in the deposit agreement, the depository bank is sometimes allowed to charge the ADR holders a fee for its services. These services include inventorying the actual shares, distributing the dividends on behalf of the company, and facilitating the voting process for the ADR holders. Usually, this fee is deducted from the dividend payment (SEC, 2012).

Moreover, ADRs can be divided into four sub-categories depending on their issuer, use case, and reporting requirements: Level I ADRs do not involve capital raising as all shares deposited are already outstanding shares of existing holders. Furthermore, the ADRs are only traded over the counter and are not listed on U.S. stock exchanges. Like Level I ADRs, Level II ADRs also do not raise new capital for the foreign company. Contrary to Level I ADRs, in this case, the shares do get listed on a stock exchange and become publicly traded. Level III ADRs include capital raising as well as a listing on an U.S. stock exchange in form of a public offering. Both Level II ADRs and Level III ADRs must be sponsored ADRs. Lastly, Rule 144A ADRs are a newer form of ADRs which make it possible for private foreign companies to raise new capital in the U.S. without having to apply the reporting regulations of a public company (Cleary Gottlieb Steen & Hamilton LLP, 2011; Darrow et al., 2008, pp. 6–7).

2.4.2. Considerations Regarding Valuation Impact of Foreign Listings

There has been long-standing research examining the effects of foreign cross-listing on the valuation of non-U.S. companies. Sundaram & Logue (1996) find that there is a significant positive effect on the valuation compared to industry and country benchmarks. Since control variables such as governance style and regulatory framework cannot explain the differences, the authors attribute the valuation gain to a reduced segmentation between capital markets. Sarkissian & Schill (2012) were able to confirm the differences in valuation but attribute the effect to a statistical bias, as companies being listed abroad often are amongst the highest valued companies in their domestic markets. Li et al. (2019) find a correlation between the valuation of existing ADRs and the number of ADRs in the adjacent year, as market timing is a major motivation for foreign listings and also a possible explanation for the valuation differences.

Companies pursuing a foreign single listing, an IPO in the U.S. without being publicly listed on another stock exchange, denote some unique considerations regarding valuation, as they do not profit from international capital market integration and diversification of their investor base. Therefore, managers need to consider the costs and benefits of foreign listings and their impact on valuation.

A first decision factor is costs connected to foreign listings, e.g., the fees charged by the respective stock exchange. U.S. stock exchanges tend to have more favourable fee structures for large companies compared to the EU, while it is the opposite for mid-sized companies (Geranio & Lazzari, 2014). Other costs important for the listing decision are SEC reporting and compliance costs and investment banking fees (Mittoo, 1994).

One of the key decisions in choosing the listing country is the expected valuation. P. Li & Wang (2018) study the valuation of foreign single listed companies from China and find an undervaluation of 20–30% compared to cross-listed firms. They explain this discrepancy with information barriers that make foreign companies less attractive to U.S. investors to hold. Contradictory, Hue et al. (2018) find ADR IPOs in the U.S. are valued at similar levels to U.S. IPOs and valued at a level of over 20% above seasoned U.S. companies. They explain the higher valuation by foreign firms timing the U.S. market effectively to achieve superior valuations. Furthermore, Diro, Ejara & Gosh (2004) suggest ADR IPOs experience lower underpricing since they undergo a very scrutinous pre-IPO phase which helps reduce information asymmetry between investors and the firm. Other frameworks suggest foreign listings achieve superior valuations due to diversification benefits or lower valuations due to information barriers and home bias (Ahearne et al., 2004).

Other major considerations besides valuation include access to larger capital markets (Mittoo, 1994) and the prestige of the stock exchange (Cetorelli & Peristiani, 2009).

2.4.3. Cost of an IPO

IPO costs are a very important consideration when going public as besides a substantial expense factor, underpricing of an IPO, one of the main cost factors, can also be used to evaluate the success of going public.

The first part of IPO costs are costs related to the fees paid to the investment bankers acting as underwriters as well as the discount at which they receive the shares of the issuing company and are called direct costs or gross spread. Historically, gross spreads have increasingly aligned to 7% in the U.S., with 77% of IPOs featuring exactly 7% gross spread between 1995 and 1998 (Hsuan-Chi Chen & Ritter, 2000). The high number of investment banks and other financial intermediaries who can perform underwriting services would suggest highly competitive pricing far below 7%. The authors explain this relatively high level of fees with strategic pricing on the side of the investment bankers, who independently agree to not lower the fee structure to protect their own interests, e.g., personal compensation. This is further amplified by the fact that pricing is not the major concern for companies going public. Updated information finds that this clustering of around 7% still holds true, especially for medium-sized IPOs with large IPOs having slightly lower average direct costs (Ritter, 2022). Notably, Francis & Hasan (2001) find that IPOs of companies backed by venture capital (“VC”) firms achieve a lower gross spread than non-VC-backed companies.

The second part of IPO costs is the so-called underpricing, which describes the lost potential proceeds by the share price increasing directly after the IPO. It is often measured by the stock price returns on the first trading day. Loughran & Ritter (2004) find that IPO underpricing has changed significantly over time with an average first-day return of 7% in the 1980s, 15% between 1990 and 1998, subsequently increased during the internet bubble in 1999 and 2000 to 65%, before returning to 12% from 2001 to 2003. Since 2018, underpricing has once again increased and was over 20% in 2021, leading to aggregated missed proceeds of $28.65 billion in 2021 alone (Ritter, 2022). On a company level, underpricing accounts for twice as high costs as underwriting fees (Loughran & Ritter, 2002). Once again, Francis & Hasan (2001) find that VC backing has an impact on the direct costs as well. Here the opposite of direct costs applies, and VC-backed companies miss out on more proceeds due to underpricing than their non-VC-backed peers.

Research has shown, that both indirect and direct costs of IPOs are very similar for U.S. and foreign issuers in the U.S. (Bruner et al., 2004). Therefore, we do not make a distinction between these two when discussing IPO costs in further sections.

A last major source of additional costs is affiliated with internal reorganisations as well as complexities in accounting as regulatory requirements (see *Appendix 4*) for publicly listed companies far exceed the requirements for private companies.

2.5. General Assessment of Methods to Raise Capital

This section introduces all instruments that were considered by Oatly in its long-term financing decision. We hereby elaborate on the general benefits and drawbacks that apply to all firms independent of their degree of ESG-compliance. The evaluation of private placements, a company sale, and debt-financing is to be read in comparison to an IPO financing and refers to the company respectively investor perspective. A specific evaluation in the context of Oatly's financing decision is conducted in *Section 4.3.*

2.5.1. IPO

An IPO describes the first sale of a stock of a private company in a public offering to investors, resulting in the shares being publicly tradeable from the IPO onwards at a stock exchange. The offering can consist of both primary shares, i.e., newly emitted shares by the IPO firm, and secondary shares, i.e., existing shares of previous shareholders.

There is a multitude of advantages attached to this method: To start with, an IPO improves room for manoeuvre of the IPO firm and existing shareholders. IPO firms can raise capital through the IPO and access financing more easily through further stock issuances in the future. Existing shareholders can sell of their shares during the IPO to exit their position and diversify their portfolios. They also benefit from increased flexibility afterwards, as they can manage their own position in the public market. Additionally, being publicly listed makes a company more valuable due to reducing uncertainty accomplished through extensive roadshows, filing, and prospectus requirements. Also, a liquidity premium applies for public firms, which is assumed to correspond to around 30%. Since shares are publicly tradeable, investors are willing to pay a higher share price due to higher flexibility and liquidity (Geddes, 2003, p. 24). Furthermore, due to the depth of public markets, firms may raise financing sums that they would not be able to raise with other private financing instruments. Moreover, academic research implies that public firms can access debt financing instruments more easily and cheaply compared to similarly-sized private companies (Geddes, 2003, p. 25; Pagano et al., 1998). Going public also comes with increased public attention towards the IPO firm and enhanced prestige. This can be particularly relevant for firms building on strong branding or wanting to attract high-skilled talent. The positive effect on marketing is particularly prevalent with high IPO underpricing and positive initial stock price returns (Demers & Lewellen, 2003). Lastly, public firms can more easily implement equity incentives, as the firms valuation is easily observable through its market capitalization (Geddes, 2003, p. 24). Balanced equity and stock option compensation of management may result in enhanced long-term operating performance of an IPO firm (Pukthuanthong et al., 2007).

The general disadvantages are the following: First, going public is associated with significant costs including underwriting fees, costs from setting up the organization to satisfy new reporting requirements, and costs from underpricing (see *Section 2.4.3.*). Similar to high costs, an IPO also requires significant time efforts throughout the organization. Depending on the total offering of voting shares, existing investors may furthermore be subject to loss of control (Berk & DeMarzo, 2017, p. 872). In the worst case, this can lead to hostile takeovers respectively the appointment of members on the board of directors that are not aligned with the existing management and shareholders. This effect can be mitigated by offering dual-class shares with distinct voting rights, which, however, might impact share price valuation negatively (Gompers et al., 2010; Pajuste, 2005). As another factor, the reporting requirements result in IPO firms having to disclose more information to market competitors and being under stronger scrutiny from the public, regulators, and media. This puts firms at higher risk of negative corporate coverage (Geddes, 2003, p. 26) and theft respectively replication of corporate secrets. Going public also exposes firms to potential short-selling attacks, which are particularly prevalent in firms with a higher divergence of opinion and underpricing (Edwards & Hanley, 2010). Lastly, being public exposes firms to an increasing level of short-termism. Public investors are found to emphasize short-term success which might discourage firms from pursuing more innovative and risky long-term initiatives that incur negative impacts on key KPIs in the short term (Gao et al., 2014). Public investors are also found to react harshly to firms that do not meet analyst expectations (Geddes, 2003, p. 28).

2.5.2. Private Placement

According to Ganti (2020), “a private placement is a sale of stock shares or bonds to pre-selected investors and institutions rather than on the open market.” Consequently, a private placement does not make the company publicly listed, and hence is considered as private equity (“PE”) instrument. This section will focus on the sale of stock shares only.

One of the main advantages of private placements is regulatory ease, particularly compared to the extensive disclosure requirements of an IPO. Private placements are not under SEC scrutiny and do also not require public disclosure of company information, as with the required IPO prospectus for IPO firms. It avoids following stricter regulatory requirements once being publicly listed, which often imposes a significant challenge. Due to the simplified regulatory requirements, private placements can also be conducted faster than IPOs since there is no requirement for public roadshows and extensive filing, such that capital can be raised in a more efficient way (Ganti, 2020; Melicher & Norton, 2016, p. 306). All the above-mentioned factors contribute to significant savings in costs as well as time spent. Additionally, private placements are a feasible way of financing when companies are too small or immature to go public or cannot prove the ability to pay back debt, e.g., by being unprofitable for the foreseen future (Demaria, 2013, p. 9). Lastly, private placements easily allow adding selected investors that can add value by providing guidance due to their expertise with previous investments and monitoring the firm's progress. The investors are often empowered through representation on the company's board, where they exert decision-making power (Metrick & Yasuda, 2011, p. 9).

However, there are also disadvantages to be considered: To start with, private placements do not give shareholders the same flexibility in managing their ownership. While they can divest during the placement process, they do not have access to the public market afterwards to sell off further shares. For this reason, public placements usually come at a higher cost for the issuing firm, often referred to as the *Private Company Discount* (see liquidity premium from *Section 2.5.1.*). Since the acquired shares are not publicly tradable, hence investors own less liquid shares, investors will require larger share amounts for a given investment amount (Koeplin et al., 2000; Kooli & Kortas, 2003). A private placement limits the reach to investors since they need to meet certain SEC-regulated guidelines to qualify for these transactions. In practice, this often restricts firms to qualified institutional investors and does not allow them to target regular retail investors (Melicher & Norton, 2016, p. 300). Adding to this, while private placements of certain sizes and ownership stakes must be publicly disclosed, they do not generate the same public attention as IPOs do. They might be unnoticed by a large share of investors and the public and do not hold the same power in serving as marketing tool. Also, given the absence of publicly tradable shares, equity incentive instruments are less attractive respectively more complex to set up (Brumberg, 2021). Lastly, having its shares not publicly listed limits the issuing firm from using its shares as an acquisition currency.

2.5.3. Sale of the Company

A sale of a company corresponds to an acquisition by another firm. In the context of this thesis, this section only refers to majority acquisitions. The key findings of *Section 2.5.2.* apply to minority acquisitions.

There are several advantages attached to this instrument: Acquisitions, on average, generate a 25% premium, hence offering an attractive exit opportunity for shareholders. (Andrade et al., 2001). The premium might even be higher in favourable market environments or when bidding wars between several interested acquirers occur. With majority acquisitions where buyers often prefer to acquire as many shares as possible to reduce the decision-making power and influence of other parties, investors can also easily exit with most or all their shares. A company acquisition also avoids going through the highly regulated IPO process saving both money and time spent. The requirements for an acquisition, however, vary depending on whether the buyer and target are private respectively public companies. The acquired firm might benefit from increased efficiency as well as economies of scale, added industry expertise, enhanced brand reputation as well as marketing capabilities, improvements in the supply chain, and various other potential synergies (Berk & DeMarzo, 2017, pp. 998–1003; Brealey et al., 2019, pp. 614–

619). These synergies need to be assessed on a case-by-case basis and largely depend on the nature of the buyer and the implementation of the target into the parent company.

The sale of a company is also subject to general disadvantages: Like private placements, the sale of a company often comes with less public attention and fewer marketing opportunities. Similarly, it does also limit the potential buyer universe to a small number of strategic buyers with sufficient strategic interest and financial resources, respectively few financial buyers that are interested in the selling company's industry and run funds that invest within the desired price range. As another drawback, a majority acquisition ultimately results in the loss of ownership from existing shareholders. While not relevant for shareholders that exited their full position, remaining investors lose decision-making power and direct influence on the future operations of the business. In contrast to positive synergies, a sale might also impose risks on the target. There may be integration risks which can lead to inefficiencies. The target may also be subject to reputational risks, for instance, if the acquirer has been involved in previous scandals, does not align well with the target firm's mission, or is associated with products respectively services that are of lower quality. This might also induce retention risk. Key personnel might leave the target firm due to uncertainty or a negative perception of the future organization, which can result in knowledge or brand loss (Deloitte, 2009).

2.5.4. Debt-Financing Instruments

We identify two debt-financing instruments relevant to Oatly, bonds and loans, that are generally suitable for long-term financing. As these instruments share most advantages and disadvantages compared to an IPO, we cover both in one section. We will briefly cover the few specific key differences between bonds and loans at the end of the section.

The advantages differ significantly from equity financing alternatives: Most importantly, debt financing is considered to be cheaper than equity as illustrated by academic theory on capital structure. This is mainly due to the interest tax shield. Since interests are tax-deductible, they lower the taxable income of a firm and hence reduce tax payments. Kemsley and Nissim (2002) estimate that the debt tax shield corresponds to 40% of the debt balance of the firm respectively 10% of the firm value. Another reason for the cheapness of debt lies in the *Pecking Order Theory*, arguing that asymmetric information is lower with debt than with equity. Furthermore, as neither the firm raising capital nor the existing investors sell shares, there is no dilution in ownership respectively loss of control from debt financing. Additionally, due to the predictability of interest payments, debt facilitates forecasts of future expenses and financial statements (Maverick, 2022). Lastly, debt financing may require less disclosure of public information and fewer efforts undertaken by the firm, making the process of raising capital cheaper and faster.

The disadvantages include the following: Contrary to equity financing, debt financing needs to be repaid. If a company fails to do so, it might be subject to bankruptcy. In case of bankruptcy or financial distress, debt must be serviced and repaid before any remaining capital can be distributed to equity holders. Thus, a large amount of debt can make the equity of a company riskier, hereby increasing the required return on equity. Debt instruments are also more difficult to obtain for less-mature respectively unprofitable firms since they neither have the creditworthiness to obtain nor free cash flows to service debt. Moreover, the general claim of debt being cheaper than equity does not hold when the costs of potential bankruptcy and financial distress of being overleveraged exceed the tax shield benefits as expressed by the *Trade-Off Theory* (Berk & DeMarzo, 2017, p. 594). As a specific feature of debt financing, covenants may also restrict management in its growth ambitions and investment opportunities and limit management and investors in their room for manoeuvre. Lastly, a variety of significant advantages characteristic to IPOs do not apply to debt financing. There is little to no public attention arising, implying that the instrument has no significant impact in serving marketing or talent attraction purposes. Having no public shares, debt financing does not facilitate equity incentive instruments and does lack the opportunity to have publicly traded shares as acquisition currency.

Before discussing the differences between bonds and loans, it must be established that we will only cover public bonds, as they far exceed the transaction volumes compared to private bonds (Melicher & Norton, 2016, p. 254). This makes them different to loans which are considered private debt. For loans, we will focus on term loans rather than credit lines, as the latter is not suitable for long-term financing.

The first advantage of bonds is the cost of borrowing. Schwert (2019), adjusting for the same level of seniority of bonds and loans, found that loans tend to be priced higher, hence making them a more expensive financing method. He argues that firms may prefer the flexibility of loans in terms of renegotiating or early repayment. He further implies that firms may value the information production of banks by monitoring the firm until the loan is repaid, which can serve as a quality indicator for the firm when issuing public financing instruments. This seems to be in line with findings that bond issues tend to be less monitored than loans due to the more dispersed pool of investors who cannot monitor the business activities of the issuing firm as thoroughly (Contessi et al., 2013). Besides pricing, a second advantage may be covenants: Public bonds are often subject to less strict and pervasive covenants. This finding is partly explained by differences between *relational lending principles* applying for loans versus the *arm's length principle* applying for bonds (Bratton, 2016). Even though loan structures seem to have weakened over the past years, they tend to be tighter with regards to enforcement proceedings and release of liens that serve as collateral as well as the release of guarantors (LSTA, 2019). While different covenants may have distinct impacts on the room for manoeuvre of firms and not all covenants limit management in significant ways, it may generally be favourable for firms to be subject to fewer covenants. However, covenants may also serve as valuable tools to prevent certain disadvantageous business activities.

One advantage of private loans compared to public bonds is that less public information needs to be disclosed as less regulation must be followed. Hence, the disclosure and reporting process may impose less time and fewer expenses to the debt-issuing firm. This implies that non-public firms may defer from issuing public bonds before they are publicly listed, even though public bonds may generate more public attention. As another advantage, loans tend to be more flexible than bonds. While a firm has only little choice other than following the set-out payment schedule for public bonds to not default, private loans are usually closed with only a few counterparties such that modifications or refinancing of existing debt can be implemented more easily. This may reduce the risk of financial distress when pursuing loans over bonds.

3. Methodology

3.1. Research Design

For the purpose of understanding and illustrating Oatly's thought process of going public to raise financing, we make use of the case study methodology. We believe this format is particularly powerful for describing Oatly's decision-making process while also allowing us to integrate insights gained from interviews with stakeholders, academic research, and publicly available information. This variety of evidence is suggested to eliminate biases from single data collection methods (Yin, 2009, p. 261). Besides using different types and sources of evidence, we conduct both qualitative and quantitative assessments to infer our results. From our perspective, the case study format is more easily digestible for interested readers considering that insights generated from our thesis may be particularly relevant for corporate decision-makers who often are not experienced in reading through academic papers. This view is supported by Siggelkow (2007), who claims that case studies can serve as a more persuasive format to readers interested in the investigated phenomenon compared to purely theoretical respectively empirical papers that rely more heavily on the underlying literature and references. Lastly, by opting for a case study format, the creation of a case study that can be used for teaching purposes is facilitated.

3.2. Research Resources

As main insight for our case study, we conducted interviews with various stakeholders that took different roles in the process of Oatly going public. The main purpose of these interviews was to understand the thought process of the involved parties as well as their stance on alternative methods. Additionally, the interviews helped us in reconciling Oatly's history, clarifying technical questions, and gaining overall insights into the perspective of the interviewees regarding the financing decisions of sustainable firms. In total, five interviews were conducted. Besides an interview with Oatly's CFO Christian Hanke, we also talked to several investors of Oatly and one legal advisor. All investors were already invested in Oatly before the IPO and continued to hold a share after the IPO.

Interviewee	Date	Company – Position	Role in IPO
Christian Hanke	25/02	Oatly – CFO	IPO Firm
David Kaden	10/03	Blackstone – Managing Director	Investor (since 2020)
Shoan Panahi	16/03	White & Case – Partner	Legal Advisor
Franklin Isacson	21/03	Coefficient Capital – Managing Partner	Investor (since 2020)
Thomas Görling	25/03	Industrifonden – Senior Investment Director	Investor (since 2002)

Table 1. List of Interviewees

To start with, we created a longlist of involved stakeholders through publicly available data, to whom we then reached out. When an interview was scheduled, we prepared distinct question catalogues with respect to the specific role of each interviewee in the IPO. This enabled us to address the specific insights that each interview could provide. We remained flexible during the interviews and adapted, added, or omitted questions, when sensible. All interviews were conducted digitally. Key insights were transcribed either by hand or digitally through both authors of this thesis. Prior to thesis submission, all interview references have been sent to the interviewees for verification. This enabled us to ensure all information has been understood and interpreted correctly. We did not include direct references for our interview with Shoan Panahi, as this conversation mainly served us to understand legal technicalities.

Apart from interviews, we used other types of sources to support our research with an outside perspective (see *Table 2*). If applicable, we also used these alternative sources to verify or supplement insights gained from stakeholder interviews. We ensured that any external information, not directly released by Oatly, stems from credible and reputable sources. As a first type, we made use of academic sources which we classify as being of academic origin and meeting standards of scientific research. These sources mostly consist of journal articles, full books, and single book chapters. Additionally, we made use of quantitative databases that were mostly relevant for our company valuation, our regressive peer group benchmarking, and our event study on a short-selling report. Lastly, we also made use of non-academic sources that consist of various elements such as news articles, press releases, business encyclopaedias, regulations from authoritative organizations and institutions, analyst reports, and Oatly's SEC filings.

Source Type	Number of Unique Sources
Stakeholder Interviews	5
Journal Articles	46
Books/ Book Chapters	9
Oatly SEC Filings	7
Oatly Analyst Reports	4
Regulations/ Guidelines from Institutions	13
Other Online Sources (News Articles, Business Encyclopaedias, Press Releases, Statistics, Financial Datasets, etc.)	77
Total Number of Unique Sources	161

Table 2. Number of Unique Sources Used per Source Type in Thesis

3.3. Statistical Methods

3.3.1. Regressive Peer Group Benchmarking

In connection with the evaluation of Oatly´s stock performance compared to different market factors in *Section 5.1.*, we conduct multiple linear regressions on various market indices described below and in more detail in *Appendix 5*. The aim of this analysis is not to find a perfect factor model, which could be used to explain all or most of Oatly´s stock performance, but rather to investigate if the company seems to have any clear correlation with specific factors overall. The analysis particularly serves to investigate how much of an effect ESG has on Oatly's performance compared to broader, non-ESG factors.

We make use of the Nasdaq Composite index as a proxy for the U.S. market as Oatly is listed on the Nasdaq, the OMX Nordic Exchange Stockholm index to represent the Swedish market, and the MSCI USA ESG Leaders index and the MSCI Europe ESG Leaders index to incorporate a specific focus on ESG companies in the U.S. and Europe. The Dow Jones U.S. Food & Beverage index is used as a representation of the U.S. food & beverage market. Lastly, we use the Renaissance U.S. IPO index to compare Oatly´s performance to the development of the U.S. IPO market (please refer to *Appendix 5* for further information on the indices).

3.3.2. Event Study

As part of our evaluation of the release of a short seller research report published by Spruce Point Capital Management, LLC ("Spruce Point") less than two months after Oatly´s IPO to be found in *Section 5.4.*, we conduct an event study to analyse the impact of said report on Oatly´s stock price. When conducting the event study, we follow the basic principles outlined by MacKinlay (1997). In the first step, we define the relevant event. We use an estimation period from the 1st of June to the 5th of July 2021. While we agree that the estimation period is relatively short, we believe it to be the best possible choice. Starting the estimation period earlier would incorporate returns very shortly after the IPO which we think would introduce very high volatility due to the market still finding the adequate price for the shares. Furthermore, we end the estimation period a few days before the actual event to adjust for potential leaks of information. While the event itself, the publication of the report on the 14th of July 2021 is a single day, we apply an event period of up to two trading days before and after the release in order to reflect the fact that the market may take some time to absorb the information in its pricing. We confine our event study to the shares of Oatly, as we do not believe that there are significant changes in other securities caused by this event. Please refer to *Appendix 6* for the detailed formulas used in the event study.

We are aware that this deviates significantly from the regular application of an event study as we are limited to a single event and thus subjected to a high amount of uncertainty as additional market noise at the time of the event cannot be ruled out completely. Nevertheless, we conducted thorough research covering the period from the 1st of July 2021 to the 13th of July 2021 to ensure no additional information or event could be a major influence on Oatly´s stock performance. We hereby did not restrict ourselves to news and press releases regarding Oatly, but also included the general food & beverage, dairy and ESG market. Since to the best of our knowledge and research, there were no news or events during that period that could reasonably have a significant impact on Oatly, we believe our event study to be meaningful.

4. The Case: Oatly's Long-Term Financing Decision

4.1. Short- and Long-Term Financing Needs to Satisfy Global Consumer Demand

As shown in *Section 2.1.4.*, Oatly successfully rebranded within and expanded beyond the European market following the Nativus investment in 2016 to sell its plant-based products in the U.S. and Asia. Oatly illustrated a strong growth trajectory with annual sales of SEK1.421 billion at the end of 2019 compared to SEK475 million at the end of 2016, corresponding to a 44% CAGR between 2016 and 2019 (Ridder, 2021). However, Oatly experienced a serious inability to supply the increasing consumer demand during these years, even leading Oatly to recommend baristas in the U.S. to purchase oat milk from rivalling brands to continue growing the share and popularity of oat milk in the plant-based milk market (Shanker & Rolander, 2019). The oat milk shortage in the U.S. was particularly prevalent in 2018 as the popularity of oat milk rose but production could not be scaled up easily at external manufacturing sites due to the technological requirements of producing oat milk (Hitchens, 2018). As an initial reaction to its supply difficulties, Oatly opened new plants in the U.S. and the Netherlands in April and September 2019 respectively which increased production levels from approximately 80 million litres in 2018 to 165 million litres in 2019 (Oatly, 2019, 2020). At this time, Oatly was valued at roughly SEK3 billion after just having received SEK400 million of equity funding from existing shareholders (Colliander, 2019; Nordic 9, 2019). However, Oatly had to acknowledge that the two new sites and the existing plant in Sweden with a total annual capacity on a full-year run rate of up to 301 million litres (Oatly, 2021c) were far from sufficient to meet the continuously increasing demand from customers across the globe. Furthermore, supplying the global demand from centralized production sites in Europe and the U.S. would significantly increase the need for transportation. In 2019 transportation to Asia was already responsible for 45% of all transportation emissions (Oatly, 2020, Chapter Transport). Therefore, Oatly had to ponder on how to move forward. It was clear that further capital was required to capitalize on growing consumer demand in the plant-based dairy category. The expansion of localized production capacity was deemed essential to enable Oatly's long-term growth ambitions (C. Hanke, personal communication, February 25, 2022). In total, Oatly was planning to expand all its existing three facilities and open six new facilities by the end of 2023 to more than fourfold production capacity to 1.4 billion litres annually compared to 301 million litres that the three existing plants would provide. The target model aimed at three plants in Europe, the U.S., and Asia each (Oatly, 2021c, p. 111). Oatly wanted to bring its production facilities closer to its customers not only to be more flexible in reacting to shortages and consumer demand but also to further decrease its environmental footprint. Transportation is a main contributor of greenhouse gas emissions and was responsible for 24% of Oatly´s climate footprint in 2019 (Oatly, 2020, Chapter Transport). Hence, maintaining a centralized production would be in sharp contrast to Oatly´s promise to provide an environmentally friendly dairy alternative. Therefore, besides enabling growth ambitions, local production was assessed to be crucial by Oatly to stay in line with the firm's key mission and vision. Especially since transportation of finished goods accounted for 80% of total transportation emissions (Oatly, 2020, Chapter Transport).

While local production was deemed necessary, it would significantly increase Oatly´s need for capital as it introduces many new costs. First, by splitting production to multiple smaller facilities, Oatly must give up on economies of scale in production by acquiring new sites and building new factories. Due to local sourcing of raw materials for production, this might also result in fewer efficiencies in procurement. Oatly will have to find new, local suppliers to provide their factories with the required resources decreasing their negotiation power. Second, Oatly needs to transfer its production knowledge to its new production sites abroad by hiring and training new qualified employees. Lastly, the company needs to familiarise itself with local regulatory environments concerning production, taxation, labour law, and more. However, despite these drawbacks, straying from the company´s core message was not a possibility as Oatly´s marketing towards customers, investors and employees was centred on the sustainability-driven mission. Thus, staying true to its environmental mission and therefore keeping its key competitive advantage would increase Oatly´s need for capital immensely. Anyhow, Oatly´s strong intrinsic sustainability enables the firm to pursue unique, green financing options.

While financing the long-term production expansion in a sustainable way was a major concern for the company, Oatly also needed to secure additional short-term financing. Since the company was still expanding, it was not yet able to obtain a positive cash flow that could be used to pay for working capital ("WC") expenses and other urgent expenses. In the first months of 2020, Oatly had two major external financing instruments in place to cover such expenses. First, Oatly received three bridge loans from its major shareholders in SEK and EURO which had a total volume of SEK145.2 million and €65.6 million (Oatly, 2021e, p. 83). The facilities were meant to cover Oatly´s capital needs for a limited amount of time until a long-term solution was found. As such, the bridge facilities came with a relatively expensive effective interest rate of 10%. Second, a term loan with Nordea Bank Abp, filial i Sverige covering SEK390 and $17 million was outstanding (Oatly, 2021e, p. 83). Nonetheless, since Oatly´s cash reserves at the end of 2019 amounted to only $10.6 million (Oatly, 2021e, p. 83) and cost of capital was aimed to be decreased, Oatly needed to find a suitable way to finance its WC more efficiently.

4.2. Sustainability-Linked Loan and Private Placement as Interim Financing

Oatly started evaluating various fundraising options at the beginning of 2020. One of the rumoured scenarios involved a potential IPO within 18 to 24 months with New York City and London being outlined as potential target stock exchanges (Fields & Pianese, 2020). However, the IPO rumours were silenced first as Oatly proceeded with two other financing transactions.

As the first transaction in June 2020, Oatly entered into an SLL agreement with various banks being led by Nordea Bank Abp. The loan consisted of a SEK725 million term loan and a RCF of SEK1.2 billion with an additional accordion option of another SEK1.0 billion. The SLL KPIs included Oatly's commitment to lower water and energy consumption, increase electric transportation, and measure avoided carbon emissions (Oatly, 2021g, p. 27; White & Case LLP, 2020). The loan's main purpose was to cover short-term WC needs arising from the rapid expansion.

As the second transaction in July 2020, Oatly received its so-far biggest equity financing of $200 million through a private placement. This round has been led by Blackstone Growth and has been complemented by various other investors including Coefficient Capital, a VC firm founded by Franklin Isacson who has already invested in Oatly during his tenure at Verlinvest in 2016, as well as potential testimonials such as Oprah Winfrey, Jay-Z (invested through his entertainment firm Roc Nation), and Natalie Portman. As part of the investment round, the founders of Oatly have also provided additional capital (Blackstone, 2020). Oatly convinced the investors mainly due to being the category-leader in a fast-growing market, being capable to keep up with the opportunity set, and its convincing brand story of being sustainable (D. Kaden, personal communication, March 10, 2022). From Oatly's perspective, the financing round provided some capital required for the planned capacity expansion in Europe, Asia, and North America (Blackstone, 2020). Moreover, the financing round was accompanied by further IPO rumours (Mohamed, 2020). It brought in helpful funding to set up a potential emission of shares to the public markets as well as significant expertise through Blackstone as an experienced advisor in guiding high-growth firms to the public market (C. Hanke, personal communication, February 25, 2022). The investment, however, was also accompanied by critical backlash through environmental and political activists due to controversial previous investments of Blackstone that they deem affiliated with environmental harm (Helmore, 2020). This criticism has been responded to by Oatly emphasizing that the investment will not mitigate Oatly's sustainability-driven mission and that bringing in Blackstone will send a powerful message to promote the sustainability movement (Oatly, n.d.). Oatly also began to work together with Blackstone to promote Blackstone's internal sustainability efforts (C. Hanke, personal communication, February 25, 2022).

While both transactions were successful as interim financing, it was clear that the proceeds will not be sufficient to cover all of Oatly's funding needs to further accelerate its global growth. The sales of Oatly again strongly increased by more than 106% from \$204.0 million in 2019 to \$421.4 million in 2020 (Oatly, 2021c, p. 3). Based on the ultimate financing solution chosen, we estimate that Oatly needed around \$1 billion to finance their local production expansion at the time. Thus, as global demand for oat milk did not stop, Oatly needed to decide on a long-term capital raising solution to achieve its goals.

4.3. Oatly-Specific Evaluation of Financing Instruments

To make a decision on long-term financing, Oatly needed to evaluate different financing methods. For this purpose, this section serves to illustrate Oatly's evaluation of several financing instruments in the context of the financing needs discussed before. We also discuss further other advantages and disadvantages that may have been relevant for Oatly even though they were not disclosed to us. We hereby also cover how Oatly being an ESG-focussed firm affects the evaluation of financing instruments. The section builds on the general assessment of methods from *Section 2.5.*

4.3.1. IPO

The first potential financing method would be an IPO, meaning that Oatly would sell its shares to the public and become publicly listed on a stock exchange.

Assessment of The Financing Method

As a first factor speaking for an IPO, Christian Hanke (personal communication, February 25, 2022), Oatly's CFO, argued that an IPO would provide a high overall capital injection that would cover most of the capital needed for the upcoming expansion plans to help

Oatly become “a global leader in the plant-based revolution”. As previously illustrated, an IPO may be able to raise higher financing than other financing instruments due to the depth of the public market. Considering that Oatly’s growth ambitions are requiring significant funding to meet global demand, the factor of total capital that can be raised is of high priority in the financing decision. As more and more investors are pressured to invest in an ESG-compliant manner, Oatly might be an attractive target and subject to high demand since the firm does not only comply with many ESG criteria but shows high growth potentials and risk-mitigation capabilities. It was further observed by stakeholders that public markets at this time were providing attractive valuations (F. Isacson, personal communication, March 21, 2022). Oatly might be particularly subject to favourable pricing due to pressure on investors to invest ESG conform and a lack of such firms on the public market. As previously elaborated, shares of a public firm would also be subject to a liquidity premium, favouring going public over staying private. Furthermore, Oatly evaluated that an IPO might be a feasible way to let shareholders cash in parts of their previous investments by both selling secondary shares in the IPO and offering shareholders a flexible opportunity on the public market to adjust share ownership in the future (C. Hanke, personal communication, February 25, 2022). This sentiment was shared by previous investors who appreciated the idea of having more flexibility in their investment positions (T. Görling, personal communication, March 25, 2022). Additionally, Oatly assessed that the impact of the increased media attention and public scrutiny imposed through a potential IPO process may be advantageous. They considered that an IPO may be a one-time event that can help to further create awareness around Oatly and help with the “step up from start-up to corporation” (C. Hanke, personal communication, February 25, 2022). Oatly may particularly benefit from increased public attention, as sustainability is gaining increasing relevance in the public. Hence, the media might be inclined to cover a potential IPO of a firm with strong sustainability efforts more extensively. This could create an additional hype creating further awareness of the Oatly brand and its unique selling proposition to non-plant-based competitors. Lastly, an IPO could help to set up the firm to access debt-financing in the future more easily and cheaply as being publicly listed would require more reporting and thereby reduce uncertainty to potential lenders. Given the increasing relevance of both green and sustainability-linked debt financing instruments, this might enable Oatly to access these debt instruments, that are already considered to be cheaper than regular debt financing, even more cheaply. As Oatly was aware of the benefits future debt financing might hold, especially considering the strong sustainable debt market, an IPO could help the company to position itself for an easier debt issue once a certain level of profitability is achieved.

However, there are also arguments speaking against an IPO: As discussed before, going public is affiliated with significant costs, that are usually also higher compared to alternative financing instruments. IPO underwriting fees alone, assumed to be around 7% as discussed in *Section 2.4.3.*, would incur costs of roughly $70 million. Additionally, Oatly would need to set up its organization to suffice increased reporting requirements.

David Kaden (personal communication, March 10, 2022), however, assessed that Oatly had already made significant progress on preparing for an IPO at the time of the Blackstone investment in 2020. As a last cost factor, Oatly would also be subject to underpricing from an IPO. However, academic evidence finds that IPO underpricing is reduced when firms extensively discuss their positive environmental activities, which leads to lower risk perception and lower levels of uncertainty (Anh & Frongillo, 2020). This finding is supported by other research indicating that more sustainable firms incur lower underpricing levels (Anderloni & Tanda, 2017; Mumtaz & Yoshino, 2021; Wang et al., 2022). Hence, Oatly due to its inherent sustainability may have advantages in setting an IPO price closer to its true intrinsic value, reducing costs from underpricing. Besides costs, as a consequence of conducting a further equity issuance, a dilution of existing shareholders would occur. As Oatly has previously carefully selected its investors to ensure that these can contribute to Oatly's mission, e.g., with the Nativus investment (see *Section 2.1.4.*), such a dilution may result in a loss of internal capabilities on the board of directors. In a worst-case scenario, Oatly might even be subject to a hostile takeover as a publicly listed company. Oatly, however, did consider the risk of a hostile takeover to be low due to feeling protected by a core shareholder base that owns a big part of the company (C. Hanke, personal communication, February 25, 2022). As another disadvantage, Oatly would be subject to stronger public scrutiny. As already experienced with the Blackstone investment as shown previously, Oatly's provocative communication has made the company more prone to negative news that may imply conflicts with Oatly's self-declared mission. Hence, as an ESG-endorsing firm, Oatly might be more vulnerable to news questioning its actual sustainability once being public. As another factor, the short-termism of public markets may be particularly dangerous for Oatly as the firm is highly cash-flow negative and future production expansion plans affiliated with high capital expenditures ("CAPEX") would further strain Oatly's profitability in the short-term. The high growth trajectory of Oatly in the recent past would also make it difficult for Oatly to provide accurate expectations on future growth and even if Oatly continues to achieve high growth rates, public investors may penalize the firm if expectations of even higher growth rates are not achieved. Lastly, a potential IPO may impose a reputation risk if the IPO would need to be abandoned after plans are announced. A potential scenario may be deteriorating market conditions within the IPO process under which Oatly would estimate to not reach its capital funding goals. This would not only increase the pressure on finding an alternative long-term financing solution but also make future equity issues more difficult as the trust of the market might be damaged.

Assessment of Listing Locations

In case Oatly opts for an IPO, the firm would further need to decide on the location of the listing as an affiliated step. An assessment of locations mostly revolves around the effects on valuation and liquidity, the costs to establish and maintain a listing, and other considerations such as the ease of access or the regional proximity to the key markets (Cogman & Poon, 2012). Oatly was thoroughly evaluating several listing locations for a potential IPO route and ended up preferring the Nasdaq stock exchange in New York. Since not much information on the evaluation of other locations was disclosed, we will focus on providing the main advantages and drawbacks of Nasdaq New York.

As per Hanke (personal communication, February 25, 2022), Nasdaq stock exchange in New York was evaluated as providing the highest valuation. A higher valuation implies that Oatly would incur less dilution for a given financing amount. The sentiment on the highest valuation being possible at Nasdaq was shared by other stakeholders. David Kaden (personal communication, March 10, 2022) argued that U.S. markets like the Nasdaq stand out for their depth and strong liquidity as opposed to other smaller markets. Franklin Isacson (personal communication, March 21, 2022) noted that Nasdaq lists various publicly-traded precedents with similar growth profiles respectively ESG characteristics. The existence of competitors is a relevant factor in valuation as it is helpful for investors to analyse an IPO offering more thoroughly. This can be illustrated by Nasdaq having listed the highest concentration of ESG-compliant firms in the food & beverage sector such as Beyond Meat, Lifeway Foods, and SunOpta. Besides valuation, the impact on branding and marketing was also deeply investigated and found to be the most attractive at Nasdaq, knowing that U.S. markets provide strong media coverage and considering that the U.S. represents one of Oatly's key growth markets (C. Hanke, personal communication, February 25, 2022). The share of the American market already increased from 10% of Oatly's overall sales in 2018 to 24% in 2020 (Oatly, 2021c, p. 4) and Oatly has been the main force behind the rise of oat as plant-based milk base in the U.S. market (Oatly, 2021c, p. 93). Lastly, the U.S. markets may also be easier to list at for non-profitable firms such as Oatly, as by Q3/19 more than 35% of firms listed at Nasdaq and the New York Stock Exchange have been unprofitable (Horstmeyer, 2020).

However, there were also challenges identified with listing in the U.S.: To start with, being foreign listed at Nasdaq as a Swedish company would imply complexities and limitations in financial reporting and employee incentives, such as options and restricted stock units. Additionally, the regulations to comply with were deemed to impact the daily work in financial and sustainability reporting (C. Hanke, personal communication, February 25, 2022). While these complexities would definitively arise, Oatly may be set up comparatively well as the CFO Christian Hanke has previous work experience from Nasdaq as *Head of Non-US Accounting Operations and Financial Control* and various other previous finance and accounting roles in the U.S. where he already worked with local accounting standards. Also, Blackstone as recent investor has notable experience with the U.S. public markets and can further accelerate and facilitate the IPO process. As another drawback, being foreign listed in the U.S. would imply that existing shareholders need to convert their ordinary shares to ADRs when they want to sell them on the public market, adding further complexities. However, this can be relatively easily solved by entering agreements with underwriting banks such that shareholders can deposit their common shares at the bank and in exchange get issued ADR certificates that are tradable, hence flexibility in the public market for existing shareholders can be ensured. As a last factor, public scrutiny is assumed to be higher in the U.S. and short selling more intense as compared to Europe, which might impose a higher risk of negative impact from unfavourable news.

Other potential listing locations that were assessed include the London Stock Exchange and the Hong Kong Stock Exchange. These two exchanges were in the end discarded as Nasdaq in New York was assessed to provide the highest potential valuation and most pronounced public attention, which were two key criteria for Oatly's assessment if the firm chooses to opt for the IPO route. While China was a relevant growth market for Oatly due to the large targetable population that cannot only be addressed with sustainability and health factors but also by exploiting the fact that the share of lactose intolerance is very high, Asia only accounted for 13% of total sales overall by YE20 as compared to the Americas region with a 24% share. Albeit the EMEA market represented 64% of Oatly's sales, it must be noted that this market was already more saturated and Oatly's presence more established. Also, the Brexit in February 2020 may have been denoted as a negative factor for a potential listing in London.

4.3.2. Private Placement

Another potential method of financing for Oatly would be a private placement, meaning that Oatly would conduct a share issuance privately. This instrument was the main resource of financing in Oatly's history thus far.

To start with, a private placement would be a relatively quick and inexpensive method for Oatly to raise financing. As the capacity constraints are pressing, quicker financing might enable Oatly to initiate expansion plans earlier. Staying private would also require Oatly to publish less internal information publicly. Given Oatly's long-lasting involvement in the plant-based dairy industry, the firm might prefer to not disclose information that may benefit competitors in a market where competition levels are rapidly increasing as sustainability is gaining relevance. Besides Oatly's growth potential and risk-mitigation capabilities, Oatly may also be an attractive target for investors in private placements as these investors are facing high outside pressure to invest ESG-compliant, similar to public market investors. Oatly would most likely also provide positive branding for such investors, which might increase their reputation and perceived capabilities. This could be helpful for said investors to convince other start-ups in selecting them for financing rounds. As a last major benefit, except for the selection of investors, additional public scrutiny would be avoided when staying private. As Oatly has already been sued in the past for misleading advertisements, less disclosure and attention might be preferable to be less open to attacks on sustainability claims.

The disadvantages affiliated with a private placement for Oatly are the following: As per Hanke (personal communication, February 25, 2022), the method was considered to most likely not provide sufficient funding given the high financing need. The very recent private round from July 2020 did only amount to roughly a fifth of the outstanding financing need. It must also be considered that the largest equity financing rounds for

European startups were not exceeding more than $650 million in 2020 (Atomico, 2021) when Oatly evaluated its long-term financing decision. As another drawback, Oatly acknowledged that some long-term investors did prefer to diversify their portfolios as Oatly made up a large share within these (C. Hanke, personal communication, February 25, 2022). While investors may be able to exit partly within a private placement round, this would imply that a new group of investors would need to invest even more than $1 billion such that Oatly can raise its desired financing amount and some shareholders can partly sell off shares. Adding to Oatly's disclosed considerations, Oatly might prefer to avoid a further public backlash as experienced with the Blackstone investment in 2020. Given the high financing need, only a limited number of investors would be able to participate in such a private placement round. With such large investors, it seems more likely to find previous investments of investors that were non-ESG-conform, potentially exposing Oatly to public criticism. Hence, it may be difficult to find investors for a private placement which fully align with Oatly's mission. In combination with this reputation risk, a private placement may also only provide few upside potentials in building brand recognition as such transactions may generate only little public attention on a consumer and retail investor level.

4.3.3. Sale of the Company

A potential sale of Oatly to a strategic buyer was another instrument obtainable by Oatly as the firm was already approached by strategic buyers in the past years (C. Hanke, personal communication, February 25, 2022).

As a first advantage of this method, being owned by a big corporate in the food & beverage industry might enable high synergy potentials (F. Isacson, personal communication, March 21, 2022). Such synergies might be particularly relevant given Oatly's aspiration to produce more regionally to further lower carbon footprint and reduce transportation costs. Oatly might greatly benefit from the supply chains, production plants, and local expertise of a potential strategic buyer. While Oatly has a strong branding compared to competitors, Oatly products are often among the highest-priced in retail shelves. Hence, according to Hanke (personal communication, February 25, 2022), Oatly aims to bring down the price point of its products in the long term to convert a larger share of the population by making production cheaper. Thus, a potential sale and affiliated cost-saving synergies might benefit Oatly in strengthening its long-term positioning in the plant-based dairy segment. Additionally, the capabilities of an acquirer might also be helpful in improving R&D efforts to develop further plant-based dairy products. As big food & beverage conglomerates such as Nestlé or Unilever are under constant public scrutiny and pressure to produce more sustainable and offer more ESG-compliant products, there might also be high demand and attractive valuations affiliated with an acquisition of Oatly. This would benefit shareholders in being able to exit positions at attractive valuations. Lastly, regarding the overall funding need, it seems likely that a large strategic buyer would be able to provide the firm with sufficient financial firepower to assist expansion plans and fuel growth.

However, there are also arguments speaking against selling Oatly: As Hanke (personal communication, February 25, 2022) commented, Oatly assessed that the opportunity for shareholders was big to hold on to the company rather than selling it. This might indicate that the management and shareholders deem that their shares may be worth significantly more in the future compared to the price a buyer would bid at a potential sale. Oatly's growth ambitions may point to a significant upside potential once production expansion is realized. Furthermore, the customer demand for plant-based products does not seem to slow down due to sustainability being a global trending theme. Apart from increasing Oatly's sales, the aspired expansion might also improve margins through increased focus on self-conducted end-to-end manufacturing, higher economies of scale, and higher production efficiencies. As another factor, there may be sentimental considerations of founders and management to keep control of the firm, which might not be granted under a new majority owner. It must also be noted that a sale would only be possible if Nativus, owning the majority of shares, is willing to let go of the firm. Given that Nativus was a big driver of the past global growth achievements, which are however not completed yet, the JV might prefer to not sell the firm to further accompany Oatly on its path. As a last consideration, there might be a reputation risk for Oatly. Oatly would need to ensure that a potential buyer is aligned with the company's mission and intrinsic sustainability character, such that the fundamental values of Oatly are not violated. If this is not ensured, there may be significant negative customer feedback and press coverage. This might be difficult given that many big corporations in the food & beverage industry have been criticized in the past for non-sustainable manufacturing, unhealthy products, or unethical operations. For instance, Nestlé has been repeatedly criticized for unsustainable water extraction or unethical breast milk substitutes in Africa (Saundry, 2020). Unilever has been under critique due to insufficient environmental certification and violations of workers' rights (Ethical Consumer, n.d.).

4.3.4. Debt-Financing Instruments

Debt-financing instruments such as bonds and loans are the last long-term financing method that has to be evaluated by Oatly. Historically, Oatly has already closed some debt agreements, even though most of these have been rather focussed on short-term financing such as the SLL from 2020.

There are several advantages attached to this method: In contrast to the previously illustrated equity financing methods, debt financing can be raised in an explicit green way. As introduced in *Section 2.3.*, various ESG-affiliated debt instruments exist such as green bonds and sustainability-linked loans. Raising capital in a green way might serve as a helpful marketing tool to further improve the branding and reputation of the Oatly brand by illustrating that the entire business model beyond the end product revolves around the aspect of sustainability. For instance, by pursuing an SLDI, Oatly can disclose ambitious ESG targets and transparently communicate the status of SPTs. Compared to the existing unaudited sustainability reports published by Oatly, such disclosure would add further credibility to Oatly's sustainability claims as the progress on SPTs needs to be validated by external parties, e.g. the participating banks in an SLDI agreement. As another advantage, debt financing may be cheaper than equity financing for Oatly. With green or sustainability-linked debt instruments, further cost-saving potentials exist as compared to regular debt instruments. This argument can be further strengthened by the recent growth of the green debt market, which illustrates that banks are investing serious efforts in establishing themselves in the market and aim to become a frontrunner to gain market share. One main motive of this observation is that banks, just as equity investors, are considering green financing to mitigate risks. The trend of green financing and the willingness of banks to participate might lead to even more attractive conditions offered by banks to borrowers, further decreasing the cost of financing. For private debt financing, as discussed with private placements, Oatly would also benefit from not having to disclose sensitive company information publicly, reducing both the risk of corporate theft and negative public scrutiny. This reasoning does not apply to public debt instruments such as public bonds, as these instruments would require higher disclosures. As another benefit, debt would facilitate forecasts of future expenses and financial statements due to the predictability of interest payments, which may particularly become relevant if Oatly ever chooses to go public. Lastly, a debt issuance would not cause any dilution to existing shareholders, such that they will preserve their control in the firm.

The specific drawbacks for Oatly are the following: To start with, Oatly assessed that debt instruments may not generate sufficient funds to generate the full desired financing amount (C. Hanke, personal communication, February 25, 2022). A debt-instrument issuance of around $1 billion for Oatly which is expecting significant negative cash flows for the upcoming years and does not possess an extensive credit rating track record might seem farfetched as lenders may assess that Oatly does not have the creditworthiness respectively cash flows to service high-interest payments. Furthermore, a hypothetical debt issuance at $1 billion would result in a book D/E ratio of Oatly of around 4, which is significantly higher than book D/E ratios of larger established peers such as PepsiCo, Nestlé, or AB-InBev (Investopedia, 2021). Hence, only a debt issuance at a lower transaction volume might be achievable, which would force Oatly to seek further financing besides debt. As another drawback, Oatly pointed out that debt financing in the short term might not be cheaper than equity financing as Oatly does not anticipate positive taxable income in the near-term, such that tax shield benefits would not apply (C. Hanke, personal communication, February 25, 2022). While particularly green debt financing instruments may be obtainable by Oatly at attractive prices as illustrated before, the non-realization of tax shield benefits would burden additional costs on Oatly. Additionally, a debt financing at a high transaction volume might impose further costs of potential financial distress on Oatly, as illustrated before with a hypothetical D/E ratio significantly higher than more established peers. This might burden Oatly on its way to profitability and potentially exacerbate expansion plans in the short term. A third factor speaking against debt financing identified by Oatly is the lack of public attention through this method (C. Hanke, personal communication, February 25, 2022). While generally debt instruments would be accompanied by lower levels of public attention as compared to e.g., IPOs or a sale of the company, a green debt instrument may be able to mitigate this effect as Oatly would have opportunities in advertising their sustainability efforts through such a debt financing and gain further credibility. Another drawback arises from covenants that are attached to debt financing. Generally, covenants may impact the freedom of decision-making. Especially financial covenants may hinder Oatly's growth ambitions as they might restrict certain investments, e.g., by requiring a minimum earning before interest, taxes, depreciation, and amortization ("EBITDA"). For green debt-financing instruments specifically, it must be noted that proceeds raised may only be used for predefined environmentally promoting investments. This could restrict Oatly's expansion plans if new plants at early stages may breach strict sustainability covenants. Additionally, Oatly would be exposed to an additional risk factor from green respectively sustainability-linked debt financing agreements if SPTs are not achieved, as this might impact the interest rates of repayments negatively and might provoke negative public feedback or media reports. To mitigate this, Oatly could choose to implement SPTs that are more easily achievable, however, this might decrease positive public attention if goals are set too unambitious. A last relevant factor is that pursuing a debt instrument would not allow any investors to exit their positions as compared to the previous equity financing instruments where investors may at least partly exit. As indicated before, this was a relevant consideration because some investors want to diversify their portfolios.

4.4. Epilogue

4.4.1. Oatly´s Decision

After carefully considering the different alternatives, Oatly decided to go public at the Nasdaq New York. Due to the significant capital needs combined with the advantages of increased public attention, Oatly believed an IPO to be the best and most feasible long-term solution for the company and its shareholders (C. Hanke, personal communication, February 25, 2022). Furthermore, the depths of the U.S. market and the higher number of similar companies and deals at Nasdaq enabling high firm valuations were the decisive factors favouring a listing there. We will discuss the details of the IPO further in *Section 4.4.2.* and *Section 4.4.3.*

Oatly, together with its majority shareholder Nativus, was also aware of the advantages of a listing in Asia, as it represented the fastest growing market for the company. Thus, Oatly also entered an additional listing agreement with its shareholders three months before the IPO, which obliges Oatly to pursue an additional listing on the Hong Kong Stock Exchange after the IPO under certain conditions. This agreement is triggered if either the listing at Nasdaq results in a material adverse effect or Oatly's business generates more than 25% of its revenue in the Asia-Pacific region for two consecutive quarters to the time after the second anniversary of the IPO at Nasdaq, upon request by Nativus, the China Resources-Verlinvest JV (Oatly, 2021a, p. 119).

While Oatly believed that the company was not yet ready to finance its long-term expansion through debt, the management was convinced that debt financing could still be an important component of their current business. Therefore, it was decided to replace the existing SLL with a larger one in form of an RCF to cover short-term financing needs. We will explain the rationale and details of this instrument further in *Section 4.4.4.*

4.4.2. The Expected IPO Proceeds

This section reflects our opinion and estimates on Oatly´s potential valuation considerations before the IPO. Since we do not have access to any actual valuations performed by Oatly or its advisors, the numbers calculated by us are not precisely corresponding with the actual IPO results in *Section 4.4.3.* We conducted this valuation to illustrate potential assumptions of the market.

Oatly had a clear plan for its future expansion and would require new capital of around $1 billion over the next few years to finance it. Therefore, Oatly had to decide on how many shares they would offer at which target price. But to reliably make that decision, Oatly had to take different aspects into account. The company had to estimate the market demand and willingness to pay for its shares to price its IPO. To evaluate the market´s willingness to pay for Oatly shares, we conducted a discounted cash flow ("DCF") analysis which we believe reflects the market opinion at the time of the IPO. Please refer to *Appendix 7* for details regarding the methodology as well as the costs of capital calculation.

To assess the business plan and future growth and profitability of Oatly we projected its income statement and balance sheet (see *Appendix 8, Appendix 9,* and *Appendix 10*) for the time frame between 2021 and 2031. We believe, that due to the company´s high current and expected growth, a shorter time horizon would not be adequate to model Oatly's maturing process before entering a steady-state period. We will only use information that was available to potential investors before the date of Oatly´s first trading day to reflect the at the time market opinion of the company´s value. Therefore, the following paragraph describes our opinion of the market view as of Oatly´s IPO date.

Oatly has been expanding quickly in the European, North American (market entry in 2017), and Asian markets (market entry in 2018), with growth rates of 88%, 156%, and 427% in 2020 respectively (Oatly, 2021e, pp. 85–86). To accommodate for Oatly´s further growth in these markets as well as the further expansion of the overall non-dairy market, we assume a future growth rate of 60% in 2021, which we expect to gradually decline over the upcoming ten years. Oatly´s gross profit margin has been between 32% and 35% in the most recent years (Oatly, 2021e, pp. 85–86). The company plans to increase the portion of its products produced on an end-to-end basis, hence reducing its dependence on third-party producers (C. Hanke, personal communication, February 25, 2022). Since Oatly can achieve much higher margins using in-house production facilities (Oatly, 2021e, pp. 76–77), this is expected to significantly increase profitability. While marketing has been a main driver of Oatly´s success, with its increasing popularity as well as the widespread acceptance of oat milk, the company will be able to decrease its marketing spending relatively, driving selling, general, and administrative costs down. Moreover, economies of scale and an increasing level of process optimization will help reduce administrative expenses. Since innovation is an important success factor of Oatly, their research and administrative costs are expected to stay at a constant relative level looking forward. Since depreciation for Oatly is directly related to their CAPEX, it will follow a similar pattern with higher depreciation in the next years, declining with fewer new investments. This will lead to Oatly´s earnings before interest and taxes ("EBIT") margin improving drastically from (-)10.7% in 2020, to 15.9% in 2031. Since Oatly´s debt financing has been historically low, we do not expect drastic changes in capital structure, such that future interest payments will remain low. To be prudent, we do not include net operating losses and their tax benefits for the years in which Oatly turns profitable.

To accommodate Oatly´s growth and increase in in-house production, the company will have to increase CAPEX spending, especially to build new production facilities, which will increase its non-current asset base significantly over the upcoming years. Oatly's WC management is still subject to significant improvement potential, following the firm's rapid growth. We believe that days of inventory outstanding and days of receivable outstanding both can be decreased in the forecasting horizon. Since according to these assumptions, potential proceeds of $1 billion will not be sufficient to cover Oatly´s capital needs over the next 10 years, we implemented future additional equity financing. We recognize that Oatly has multiple financing choices going forward, but we decided on using an equity issue for this valuation.

Using these forecasts to calculate FCFFs and using the weighted average cost of capital ("WACC") to discount them results in an enterprise value of $10.5 billion and a corresponding equity value of $10.2 billion. The equity value divided by the number of outstanding shares at 527 million pre-IPO yields a share price of $19.41.

We believe that these assumptions are very much on the optimistic side and while may not reflect Oatly´s intrinsic value, are in line with the market expectations of Oatly at the time.

Applying the enterprise value / revenue multiple of 16.7 of Beyond Meat to Oatly by multiplying it with Oatly´s 2020 revenue leads to an enterprise value of about $7 billion and a corresponding price per share of $12.9. While this might suggest that the market would not be willing to pay the price calculated using the DCF, it is important to consider the significant drawbacks of a valuation using multiples. First, there are no two companies that are perfectly comparable since there will always be differentiating factors in their firms' risk profiles and growth opportunities. Moreover, since in this case only one reasonable peer was identified, the valuation is very susceptible to errors and misjudgements in the market valuation of that one peer. Lastly, different accounting standards used by the companies can also influence the valuation. Therefore, we conclude that a DCF is a more useful way to calculate a reasonable valuation for Oatly since it takes more individual information about the company into account.

To reasonably estimate their proceeds, Oatly had to take the costs related to the IPO into account. Since direct costs consisting of underwriting fees and discounts are estimated to be around 7% of IPO proceeds, we estimate costs of around $70 million. Indirect costs are harder to estimate but to ensure a successful IPO, it is realistic to incorporate a 15% underpricing on the shares. Therefore, Oatly would need to issue 63.4 million shares at a price of $16.9 to raise $1,070 million before direct costs and $1 billion net. For Oatly, reaching the capital raising target was highly important, as less available capital would result in a slower expansion and therefore hamper Oatly´s ability to cover international demand for oat milk, potentially attracting new competitors and hurting its market leader position. Thus, successful marketing of the company to potential investors was of utmost importance to ensure that the IPO raises the desired financing amount.

4.4.3. The IPO Process

The below-mentioned numbers reflect the actual results of the IPO and therefore do not precisely align with our previous analysis from *Section 4.4.2.* which was conducted to illustrate potential assumptions of the market and Oatly, as this was not disclosed to us.

After deciding to solve its financing challenges by going public in connection with issuing a sustainable revolving credit facility (”SRCF”), Oatly had to decide on how to approach investors and how to design its IPO in more detail. This also included deciding on which investment banks to hire to convey Oatly’s equity story to investors. Furthermore, Oatly had to decide on the banks acting as their depositary banks to make a foreign listing via ADRs possible. While many investment banks tried to persuade Oatly by bringing up their deep understanding and involvement in different ESG-related projects, this was not the most important decision factor for Oatly as the company was looking for a reliable long-term partner for capital raising and already possessed relevant sustainability capabilities (C. Hanke, personal communication, February 25, 2022). In the end, Oatly chose JPMorgan Chase Bank, N.A. as its depositary (Oatly, 2021e, p. 19) and Morgan Stanley & Co. LLC, J.P. Morgan Securities LLC, and Credit Suisse Securities (USA) LLC as its lead book-running managers. Furthermore, six book-running managers and 14 co-managers were selected (Oatly, 2021d). While all banks were responsible to sell different amounts of shares, the lead book-running managers particularly also had the responsibility for organizing the IPO and creating the necessary marketing and SEC documents (see *Appendix 11* for a detailed list of the shares to be sold by each advisor).

While Oatly already had a clear goal in mind with regards to their capital raising needs and also decided on Nasdaq New York as the best place to achieve this goal, the company still needed to decide on which aspects of the company to focus on in marketing and communication: Oatly decided to focus on both its growth story and its sustainability aspect to attract investors. Since Oatly put a lot of emphasis on outlining a detailed growth strategy together with the required CAPEX investments, the company was able to persuade many investors that their high growth outlook was realistic and achievable. Additionally, many investors were impressed with Oatly´s ability to create its own market (C. Hanke, personal communication, February 25, 2022). This was showcased by Oatly´s expansion in the U.S., where oat-based milk substitutes were widely unknown before the company entered the market. Since then, oat milk has become the second biggest milk substitute behind almond overtaking soy in January 2020 with a yearly growth rate of 203% compared to 20% of other dairy alternatives (Oatly, 2021e, p. 7). Moreover, Oatly has issued multiple sustainability reports up to that date giving further credibility to the long-term advantages of oat milk on the environment. Given this earned credibility, most investors did not ask for any additional evidence regarding the sustainability of Oatly´s business model during the IPO process. Most investors evaluated the sustainability aspect of Oatly in two distinct ways: On the one hand, the consumer trend toward sustainability gives rise to new business models such as Oatly and therefore can act as a catalysator for growth. On the other hand, investing in sustainable and ESG-compliant companies can act as a risk mitigator to avoid future costs and drawbacks by new regulations or additional fees and taxes. It seems that most investors in Oatly, before (F. Isacson, personal communication, March 21, 2022) and after Oatly's IPO, considered both aspects as highly relevant when investing in the company and thus the sustainability aspect of the company was a main selling point (C. Hanke, personal communication, February 25, 2022). Based on internal calculations Oatly set an initial price range of $15 to $17 for its IPO but strong market demand led to the company ultimately choosing an offering price at the top of this range at $17.

Notably, Baillie Gifford, a U.S.-based independent investment manager, announced its intention to participate in the IPO emission with a total volume of around $500 million (Oatly, 2021e, p. 54). Having a well-known investor publicly announce its intention to participate in the IPO at such a large amount contributed to the perception of the IPO and Oatly's business model's trustworthiness and as such helped in finding additional investors (C. Hanke, personal communication, February 25, 2022).

Furthermore, Oatly had to consider its existing shareholders´ demand to sell part of their stake. Investors like Industrifonden have held a stake in the company since 2002 and were looking for an opportunity to exit their position due to the long holding period. But an important consideration here was the signalling effect for new investors. If too many of the existing shareholders would sell large parts of their stake, this could be interpreted as a sign of distrust in the company by the market. Furthermore, selling too many shares overall could lead to supply outnumbering demand and therefore decrease the IPO asking price. There is academic evidence that suggests that selling a larger amount of shares does negatively affect firm valuation (Chen et al., 2018) and analysts´ expectations (Jin et al., 2016). Therefore, existing shareholders decided to sell only a limited number of shares directly at the IPO, as they could still divest their stakes afterwards if the IPO was successful. To give the shareholders a possibility to sell more shares in case of high market demand as well as to allow the investment banks more flexibility, a greenshoe option of 12,656,400 shares was implemented as well (Oatly, 2021e, p. 18).

4.4.4. Extensive Sustainable Revolving Credit Facility as Long-Term Solution for Short-Term Capital Needs

In connection with the IPO, Oatly issued a SCRF. In this section, we want to explore the rationale behind this instrument, and the advantages Oatly gained in its WC financing from being a sustainable company.

The Rationale Behind the Instrument

Additional to long-term capital to finance production expansion, Oatly´s ongoing growth has also created an increased need for WC in the short term. Therefore, the firm decided to issue a new SLDI in form of a RCF to replace the existing SLL. An SRCF is a sub-class of SLLs, as it only consists of a RCF but no term loan component.

Oatly recognized that the timing would be highly advantageous to issue a new credit facility. Since their last issue in 2020 Oatly´s revenue has grown by 106% to $421 million (Oatly, 2021c, p. F-3) at the end of 2020 improving Oatly's negotiation position significantly. Moreover, Oatly has gained new and highly respected shareholders including Blackstone which further supported their negotiation power with lenders. A new instrument would also help Oatly to better align its needs with its potential financing. While the existing SLL consisted of both a term loan and an RCF part, a new instrument would have the advantage of being only an RCF. In the past, Oatly used this instrument both for short-term financing as well as expansion financing. But following a successful IPO, Oatly would no longer need debt financing for its long-term investments and could solely utilize it as backup financing for WC. Especially considering the high costs of the bridge facilities of 10% effective interest rate, replacing this instrument with equity for long-term financing and a new, cheaper debt instrument for WC financing could introduce significant financing cost savings.

Being a sustainability-driven company was a major advantage for Oatly in securing this debt financing, as the SRCF allowed for a cheaper source of debt with many banks seeking to participate in the new and fast-growing green debt market.

The Relevant Terms & Conditions

The final sustainability-linked RCF was filed in April 2021 and covered a total committed capital of SEK3,600 million, of which BNP Paribas SA, Bankfilial Sverige, Coöperatieve Rabobank U.A., Nordea Bank ABP, Filial I Sverige, Skandinaviska Enskilda Banken AB (publ) each contributed SEK560 million, J.P. Morgan AG, Morgan Stanley Senior Funding, Inc both committed SEK425 million, Barclays Bank Ireland PLC SEK340 million, and Credit Suisse (Deutschland) Aktiengesellschaft SEK170 million (Oatly, 2021b, p. 1). The agreement allows for up to four incremental facilities at the same time with a maximum volume of SEK850 million (Oatly, 2021b, p. 1). Oatly can draw down money from the RCF either in the base currency which is SEK, or in EUR, GBP, or USD with a minimum withdrawal amount of SEK50 million or 5 million EUR, GBP, or USD respectively (Oatly, 2021b, p. 44). The loan has a basic term of three years after the IPO settlement date with two one-year extension options (Oatly, 2021b, pp. 58–59) and is conditional on a successful IPO and listing at Nasdaq New York (Oatly, 2021b, p. 62). Since the instrument is an SLDI rather than a green loan, the proceeds are not bound to any specific purpose and are available for general corporate purposes including WC financing and CAPEX (Oatly, 2021b, p. 42). Interest rates on the outstanding balances will be calculated by aggregating the base margin, which is 2.25% (Oatly, 2021b, p. 17), the respective reference rate for each currency, corresponding to the SONIA, LIBOR (with a rate switch to SOFR), STIBOR or EURIBOR (Oatly, 2021b, pp. 191, 193, 198, 201), as well as potential margin adjustments, conditional on the fulfilment of the sustainability targets. An additional markup of 0.15 percentage points for drawdowns in GBP or USD applies (Oatly, 2021b, p. 70). There are four sustainability targets, identical to the ones defined in the SLL from 2020, that affect the margin as follows: If all four goals are reached in a respective year, the margin will decrease by 0.1 percentage points, and if two or three targets are reached, the margin will decrease by 0.05 percentage points. Reaching just one target will leave the margin unchanged while missing all four targets will increase the margin by 0.1 percentage points (Oatly, 2021b, p. 69). The first sustainability target for Oatly is a stepwise decrease in water consumption at the Landskrona factory relative to the produced quantity. As the second target, Oatly should reduce its relative electricity consumption at Landskrona. The third target concerns transparency and a reduction of the transport-related carbon emissions at Landskrona. The final target is an overall absolute reduction of CO2 emitted (Oatly, 2021b, p. 213). Please refer to *Appendix 12* for the precise SPTs. Oatly has to confirm its sustainability progress by releasing a sustainability compliance certificate in addition to disclosing regular reporting which includes financial statements and a certificate of compliance with the covenants (Oatly, 2021b, p. 96).

Besides the successful IPO, there are financial covenants that Oatly must adhere to. First, Oatly´s tangible solvency ratio must stay above 55% in all quarters in 2021 after the IPO, above 50% in all quarters in 2022, and above 45% in all quarters thereafter. Second, Oatly must achieve a positive EBITDA in all quarters after September 2022. Lastly, Oatly´s liquidity is not allowed to drop below SEK1.5 billion. Oatly has the choice to irreversibly exchange these covenants for a single covenant that specifies that the company´s Total Net Leverage Ratio must remain above 3.5:1 (Oatly, 2021b, pp. 103–104).

4.4.5. Oatly’s First Trading Day

After successfully completing the IPO process, Oatly went public on NASDAQ on the 20th of May 2021 under the stock ticker “OTLY”. The IPO at the price of $17 was oversubscribed and raised total proceeds before expenses of $1,047 million to Oatly through primary shares as well as $319 million to previous shareholders through secondary shares, excluding the later exercise of the greenshoe option. The underwriting discount affiliated with the above-mentioned proceeds amounted to 4.75% per share, corresponding to total costs to underwriters of $52.2 million for Oatly's primary shares offering only (see *Appendix 11* for a detailed list of the underwriting fees to each advisor) (Oatly, 2021e, p. 169). Additionally, other offering expenses of the IPO amounted to approximately $12.9 million, with the main positions being miscellaneous costs, accounting fees, and legal fees accounting for more than 90% of these expenses (Oatly, 2021e, p. 181). The stock opened at $22.12 and closed at $20.20 on its first trading day at NASDAQ, representing an IPO underpricing of 19% comparing the first closing price to the IPO price (Yahoo Finance, 2022). Oatly's market capitalisation was at around $10 billion and Oatly's implied EV/ Revenue multiple accounted to 28 on the base of the IPO price as reconciled through S&P Capital IQ data. The IPO day and run-up were also accompanied by an abundance of favourable press coverage with headlines such as "This valuation is insane" (Heimlich, 2021) and "The Big Money is Going Vegan" (Ewing & Hirsch, 2021), addressed in more detail in *Section 5.4.*

4.4.6. Significant Events Within Oatly's First Public Year

This section comprises the main events in the aftermath of Oatly's IPO up to the end of the fiscal year 2021 as covered by Oatly's 20-F filing (Oatly, 2022) from the 6th of April 2022, other filings submitted from Oatly, insights from stakeholder interviews, and public media coverage.

As the IPO was strongly oversubscribed, the underwriters chose to exercise the over-allotment option briefly after the IPO to purchase another 12,656,400 secondary shares, corresponding to a 15% greenshoe option. During the first weeks, the stock price was increasing continuously, with an all-time closing high at $28.73 on the 11th of June, corresponding to a 69% increase to the IPO price. However, from then the stock has seen a continuous decline, closing at $16.99 on the 12th of August, marking the first closing day below IPO price, and closing at $7.96 at YE21 (Yahoo Finance, 2022). According to Hanke (personal communication, February 25, 2022), the reasoning behind the stock price development is assumed to be based on both external and internal reasons: He observed an increasing uncertainty in the public market, which might have urged investors to prefer positive cash-flow oriented companies over high growth, but cash-flow negative firms. This uncertainty is mainly caused by the impacts of covid-19 on businesses as well as the macroeconomic environment with uncertainty revolving around central bank actions on interest rates and increasing inflation rates. Regarding internal reasons, Hanke denoted that Oatly has missed some expectations that were provided to the market and that Oatly was negatively affected by covid-19 in their supply chain operations.

Oatly's stock has also been subject to a short-selling attack from Spruce Point on the 14th of July. While this led to an internal audit occupying key management and accounting resources, Oatly concluded that there was no need for further action and communicated these findings to its shareholders in its following earnings report (C. Hanke, personal communication, February 25, 2022).

In September 2021, further cross-listing rumours arose as insiders reported that Oatly initiated talks with investment banks on a potential Hong Kong listing (Ka-chun et al., 2021). The considerations regarding a Hong Kong cross-listing seem sensible, given that Nativus can trigger an additional listing agreement forcing Oatly to pursue a cross-listing. This listing may be helpful in raising further capital for plant expansion as well as establishing further brand recognition in Asia.

In 2021, Oatly continued to be subject to capacity constraints, as covid-19 significantly impacted the capacity expansion plans. At YE21, Oatly was able to provide an output of 470 million litres of finished goods, up from 301 litres at the end of 2020. This increase in 2021 was achieved through expanding the existing facility in the Netherlands and launching production from a new facility in the U.S. Additionally, two new plants in China and Singapore were subject to start-up-related activities in 2021 and are expected to ramp up within 2022. A total of $274 million was invested in 2021 to expand production capacity (Oatly, 2022, p. 63). However, Oatly missed production capacity expectations by 130 litres, as they announced a target capacity of 600 million litres by the end of 2021 in their IPO prospectus (Oatly, 2021a, p. 111). As a further relevant activity, Oatly has announced plans in October 2021 to open a new research and innovation centre at Lund University, expected to be finished in 2023. This facility is supposed to employ around 30 new scientists conducting research on the potential of oats to continue supporting Oatly’s growth ambitions through the improvement of existing and the creation of new products (Oatly, 2021h).

5. Discussion

5.1. ESG Firms Resemble Regular Firms in Financing Considerations and Investor Perception

While we have seen that there are multiple unique advantages and disadvantages to different financing possibilities for sustainable firms, many of the core decision point points considered by Oatly´s management do not differ from those of regular companies. Valuation considerations, capital demand, profitability, and creditworthiness are just a few of the key considerations that are equally shared by firms with less emphasis on ESG matters.

From interviews with Oatly´s past investors as well as from observations of Oatly´s marketing strategy during the IPO, we conclude that investors assess sustainability capabilities as very related to traditional growth and risk factors. First, they deem sustainability-promoting firms to have strong growth potential. The need for sustainability in the context of the climate crisis is increasingly gaining public awareness, such that purchasing decisions of consumers may be affected. Therefore, companies being frontrunners in sustainable business practices that are also successful in branding themselves as such are considered to be able to charge premium prices and profit from the immense growth in their respective industry. Hence, investors consider ESG-compliant firms with strong marketing capabilities as attractive targets. Second, sustainability and ESG compliance can act as risk mitigators for both the companies themselves and the portfolios of investment companies. Being not only compliant with current ESG regulations but going beyond can help avoid potential costs in the future through changes in regulation or shifts in consumer awareness. New regulations regarding ESG topics are easier for those companies to implement, or they might even be able to take part in their inception. Thus, costs from fees, reputational damage, or boycotts can be avoided, making the company less susceptible to regulatory and ESG risk. Hence, this case suggests that investors are not internally driven to invest in sustainability, but rather view it as a competitive advantage. This is supported by research from McKinsey (2020) showcasing that 57% of investment professionals believe ESG programs create shareholder value with reputational factors being the main driver. Norrestad (2021b) finds similar results denoting that improved investment returns and reduced risk are the main motivation to consider ESG factors when making investment decisions.

To support the qualitative evidence, that ESG is not the primary factor in decision making, we conducted a quantitative analysis contrasting different market factors. Therefore, we looked at the stock price development of Oatly since its IPO to investigate if its performance since then correlates with the ESG market, the overall U.S. market, the food & beverage industry, or the U.S. IPO market. Therefore, we contrast the returns of Oatly´s stock with other securities and indices between the 20th of May 2021 and the 8th of April 2022. We chose the end date to be two days after the release date of Oatly´s first annual report as a public company. By doing this, we ensure that the most current information is fully incorporated into the price.

Since its IPO, Oatly´s stock price has fallen by 74% compared to the IPO price of $17 and was trading at $4.45 on the 8th of April 2022. The strong decline comes after an initial price increase that peaked at $28.73, 69% over the IPO price, on the 11th of June 2021. *Figure 1* shows Oatly´s stock performance compared to various indices. The graph suggests that Oatly´s price development correlates with the IPO index. To verify this observation, we conducted various linear regressions on the respective stock returns. The statistical method applied has been explained in *Section 3.3.1*.

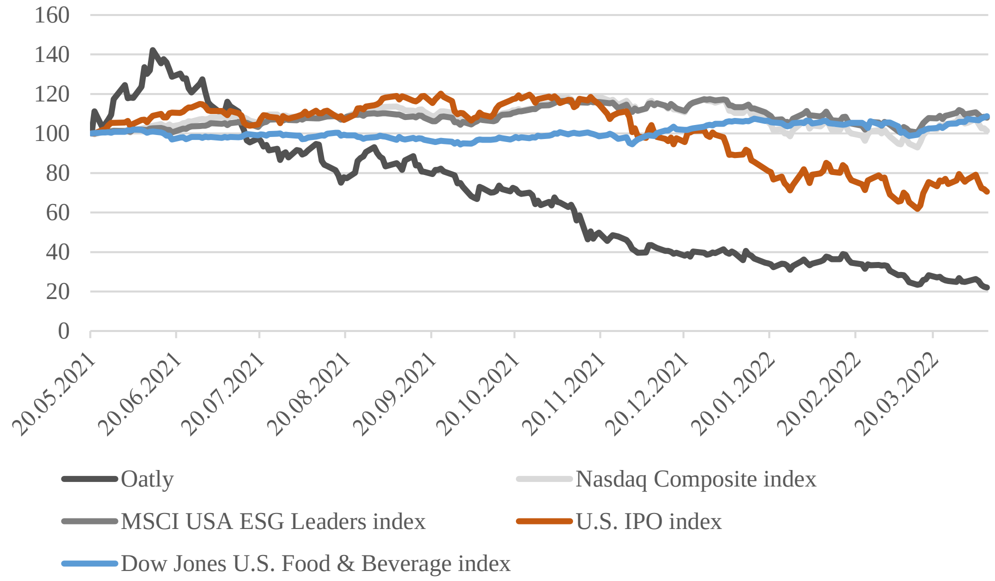


Figure 1. Oatly´s Stock Performance Compared to Various Indices

Regressing the stock returns of Oatly over the returns of the Nasdaq Composite index results in a coefficient of approximately 1.5 which is a statistically significant correlation at a 0.1% level and explains about 21% of the variation of Oatly´s stock. Similar results can be achieved by substituting the Nasdaq index with the MSCI USA ESG Leaders index with a statistically significant coefficient of 1.6 as well as with the FTSE Renaissance IPO index which leads to a coefficient of 0.9. Interestingly, Oatly´s stock returns only show a statistically significant correlation at a 1% level with the corresponding European ESG Leader index and the OMX Stockholm index. No significant correlation was found with the U.S. Food & Beverage index. Therefore, this first step suggests that Oatly´s performance could be explained by the overall U.S. market, and the specific ESG and IPO market. However, if we use the IPO index as a control in both the regression on the Nasdaq index and the regression on the ESG index, all correlations of Oatly's stock returns become insignificant, apart from the correlation with the IPO index itself. The analysis yields the same result when regressing Oatly´s returns on Nasdaq, ESG, and IPO index at the same time. Moreover, since the adjusted R-squared value is the largest when using the IPO index as a sole explanatory variable, it appears most plausible, that the IPO index alone is the best indicator to explain Oatly´s stock price decrease. Nevertheless, the correlation only explains about 30% of the variation in returns. This result is improved by limiting the timeframe for the regression to returns after the 20th of July 2021. We believe that it is adequate to exclude returns up to two months after the IPO since the market usually needs some time to find a reasonable price for a newly listed security. This results in a correlation of 0.944, which is statistically significant at the 0.1% level, and an intercept of (-)0.006, significant at the 5% level, ultimately explaining approximately 35% of the variation (see *Table 3*).

	Intercept		Coefficient (Nasdaq)		Coefficient (ESG)		Coefficient (IPO)		
Regression	Value	p-stat	Value	p-stat	Value	p-stat	Value	p-stat	adj. R^2
Oatly~Nasdaq	-0.01	0.0083	1.51	0.0000	n/a	n/a	n/a	n/a	0.2117
Oatly~ESG USA	-0.01	0.0072	n/a	n/a	1.63	0.0000	n/a	n/a	0.1358
Oatly~IPO	-0.01	0.0309	n/a	n/a	n/a	n/a	0.93	<2e-16	0.2897
Oatly~Nasdaq+ ESG USA	-0.01	0.0147	2.89	0.0000	-1.96	0.0058	n/a	n/a	0.2350
Oatly~Nasdaq+IPO	-0.01	0.0298	0.10	0.7732	n/a	n/a	0.88	0.0000	0.2867
Oatly~ESG+IPO	-0.01	0.0307	n/a	n/a	0.06	0.8565	0.91	0.0000	0.2866
Oatly~Nasdaq+ ESG USA+IPO	-0.01	0.0305	0.25	0.7642	-0.16	0.8417	0.86	0.0001	0.2836
Oatly~IPO (after 20.07.2021)	-0.01	0.0210	n/a	n/a	n/a	n/a	0.94	<2e-16	0.3462

Note: Values rounded to the second decimal place, p-stats rounded to the fourth decimal place

Table 3. Output Regression of Oatly Against Various Indices

Thus, we conclude that while Oatly does correlate with the ESG index, multiple other factors such as the overall U.S. market and especially the IPO market, which shows the highest correlation to Oatly´s stock returns, have higher explanatory power for Oatly´s stock price development, suggesting that in this case, ESG has only a subordinated impact on the markets´ view on Oatly´s stock.

These points suggest, that ESG and sustainable companies do have some unique features and influences, but overall are very similarly approached by managers, investors, and the market as less ESG-emphasizing companies driven by traditional factors.

5.2. Selection of Previous Investors May Impact Future Financing Opportunities

Another key observation from Oatly´s IPO decision is that the selection of previous investors has a major influence on a company´s future financing considerations. Going from the most recent to the earlier investors different implications can be drawn.

Oatly´s most recent funding round featuring Blackstone as the lead investor paved the way for an IPO significantly. Blackstone is a highly experienced investor concerning IPOs. In 2021 alone, ten companies in which Blackstone held a stake went public (Kosman, 2021). Blackstone also provided Oatly with valuable skills and resources on the way to the IPO. We strongly believe that this high level of experience and expertise coupled with the strong reputation Blackstone enjoys in the financial markets massively supported the company’s decision to go public as it helps to simplify the process and reduces the risks of an IPO failing. It could be argued that this was a major contribution to Oatly achieving a low underpricing of only 19% compared to market-wide first-day trading results of over 20% in recent years (see *Section 2.4.3.*). Notably, Oatly achieved a slightly below average underpricing even though the company was VC-backed, which Francis & Hasan (2001) suggest would likely lead to a higher underpricing. Furthermore, as Blackstone is most experienced in the U.S. market, this could also have been a major factor in the decision to list at Nasdaq. Additionally, the initial reaction after Blackstone´s investment in 2020 was very negative and led to backlash and boycotts, which might also have further influenced the company from refraining from additional private placements or a sale of the company to avoid further negative press.

Going back to Oatly´s financing round in 2016, the investment by Nativus also made a huge impact on Oatly´s financing decision. Nativus, due to its linkage to AB-InBev, one of the world's largest breweries with plenty of experience in the U.S. market, significantly supported Oatly's growth in the U.S., thus making the decision to list in the U.S. more attractive. Furthermore, by supporting the growth of Oatly in the Asian market immensely, Nativus, particularly enabled by China Resources, helped to open the Asian capital market to the company. While the IPO itself was conducted in the U.S., the additional listing agreement indicates, that a listing in Asia was the second-best option and also a major option for future capital raising. Moreover, Nativus' willingness to stay invested in Oatly in the long-term provides the company with a valuable assurance against a hostile takeover and thus made an IPO a much better option. While Nativus sold 10% during the IPO, the company still remained Oatly´s largest shareholder with 45.9% of total shares after the IPO (Oatly, 2021e, pp. 132–133).

Oatly´s earlier investors like Industrifonden also made valuable contributions leading to the IPO decision. First, the willingness of these investors to stay with Oatly and participate in multiple funding rounds made the rise of the capital intense company possible. Second, accompanying the company over such a long period of time, provided Oatly with the possibility to wait for favourable market timing before needing to raise new external capital, thus making an IPO easier and more successful. Third, the early investors including Industrifonden recognized at a certain point in time that Oatly would need new, international investors to further advance its global growth. Thus, by being willing to allow Nativus as a new majority investor to enter Oatly and selling part of their stake, these investors made a significant contribution to Oatly's future. Fourth, since now the time has come for the long-term investors to partially exit their stake, they also supported a capital solution that made their divestment possible, therefore favouring an IPO.

To sum it up, selecting the right investors at the right time of a company's lifetime can have a notable impact on the availability, attractivity, and feasibility of future financing opportunities. We recognise that different stakeholders have different financial and strategic goals based on their respective investment strategy. Hence, firms raising private investments need to ensure that they match their aspirations regarding future growth and outlined business plan with expectations and goals of investors.

5.3. There is No One Size Fits All Approach for ESG-Growing Firms

As illustrated before, Oatly decided to go for an IPO for a combination of factors that were partly affiliated with Oatly's high inherent degree of sustainability: First, the IPO served Oatly's high financing needs that were essential to ensure localized production expansion to promote growth, improve margins, and serve credibility of sustainability efforts. Second, the IPO at the time provided attractive valuations and high investor demand as investors appreciated Oatly's growth potential due to the increasing relevance of plant-based food & beverage products as well as Oatly's risk-mitigating factors due to being highly ESG-compliant. Third, the IPO brought in significant public attention, as the media was extensively covering Oatly's IPO process and IPO day, partly because of Oatly's strong sustainability footprint.

However, due to increasing pressure on investors, industry conglomerates, and banks to promote ESG matters, private placements, a sale of the company, and debt-financing were also instruments available for Oatly in 2021 to pursue further financing. As discussed in *Section 4.3.*, each method was attached with specific advantages and drawbacks which ultimately led Oatly to opt for an IPO. While an IPO may have been the most appropriate decision for Oatly's financing needs at this point in time, we also observe that Oatly before has pursued other financing instruments such as private placements and debt financing. These instruments may have been preferred in the past because financing needs were lower, IPO readiness was not as pronounced, and the helpful expertise of equity investors was contributing to Oatly's development as a firm.

Hence, we argue there is no one size fits all approach for other ESG-growing firms and said firms should conduct their financing decision on a case-by-case basis. We hereby classify firms as ESG-growing when financing choices have been significantly affected by ESG considerations. Their decision should take various factors into account such as the maturity of the firm, investor preferences, the use case for financing, the desired transaction volume, the macroenvironment, reputation risks, and many more. To illustrate this, we want to discuss financing that was raised by ESG-growing firms from 2021 onwards. Particularly, we want to illustrate the potential rationale leading these firms to pursue the respective financing instrument respectively infer potential ESG-related takeaways from these financing rounds.

To start with, there were other ESG-growing firms that also conducted an IPO. One notable example is the firm Plant Veda, which is a direct competitor to Oatly producing plant-based dairy goods based on cashews. Plant Veda went public at the Canadian Securities Exchange in Toronto in June 2021, sticking to the firm's Canadian origin. Similar to Oatly, Plant Veda is on the verge of expanding its production capacity which may have been a main rationale for going public. However, Plant Veda is significantly smaller in size than Oatly and was at that time only present in the Canadian province of British Columbia (Plant Veda, 2021). We argue that Plant Veda for this reason has preferred to list in Canada, as there was no brand recognition to expand beyond the home market, such that public attention may have been assessed to be most favourable with a domestic listing. Additionally, given the small size of the firm, complexities of listing abroad may have been harder to overcome as compared to Oatly which has larger personnel and notable investor support. An IPO example of an ESG-growing firm listing at Nasdaq in New York is the eco-friendly shoe and clothing producer Allbirds. The firm went public in November 2021, raising around $300 million. The proceeds were mainly aimed at long-term initiatives such as developing new materials and building a sustainable supply chain (Debter, 2021). Allbirds was able to create a large public hype and affiliated media coverage as the company claimed to conduct the first-ever "sustainable IPO" and implemented 33 ESG commitments in its IPO prospectus that the company pledges to adhere to. Hence, Allbirds may have preferred to go public at Nasdaq, as the stock exchange shows a great depth of other sustainable peers and thus more sustainability-proficient investors as elaborated previously. However, they have also encountered similar backlash as Oatly with the Spruce Point short-selling report, as civil action lawsuits were filed against Allbirds for misleading sustainability and animal welfare claims. Additionally, the claim of the "first sustainable IPO" had to be dropped following objections from the SEC (Palese, 2021). The two examples illustrate that Oatly was not the only ESG-growing firm conducting an IPO in 2021 even though some financing considerations may have been different.

There were also ESG-growing firms conducting private placements in 2021. A first example is the California-based plant-based meat producer Impossible Foods. The firm raised $500 million in November 2021 to foster international expansion, supply chains, and product development (Impossible Foods, 2021), corresponding to a very similar financing rationale as Oatly in its IPO decision. One potential reason for conducting this financing in the form of a private placement might be similar to Oatly's 2020 rationale for pursuing the Blackstone financing: There are rumours that Impossible Foods eyes an IPO in 2022 (Tepper, 2022). However, another point raised in the article is that an IPO might not be a favourable financing choice considering the recent poor after-IPO performance of peers such as Beyond Meat and Oatly. Hence, while Impossible Foods might pursue an IPO in the future, the firm might have preferred a private placement in 2021 as previous investors apparently were willing to further finance the company as opposed to Oatly where some investors wanted to exit and the aspired financing was assessed to not be achievable through a private financing round. Another example is the Stockholm-based battery manufacturer for electric cars Northvolt, which managed to raise $2.75 billion in June 2021. The rationale of the transaction was similar to Oatly's IPO rationale, as Northvolt plans to expand its battery cell production and R&D efforts to meet increasing customer demand. However, a private placement may have been preferred over an IPO as the company was just founded in 2016 and received its first equity fundings in 2017 and 2019 (Northvolt, n.d.), hence there may was no pressure of early investors to exit their positions already respectively obtain the flexibility of the public market. Additionally, Northvolt was able to attract a diverse range of financially strong investors such as the four Swedish pension funds AP1, AP2, AP3, and AP4 as well as Goldman Sachs and Volkswagen Group. This strong funding background may have been achieved because Northvolt had managed to secure contracts from large automobile manufacturers worth $27 billion for the upcoming years (Northvolt, 2021). These large, secured sales figures may have helped Northvolt to achieve such a large commitment of private equity round investors, proving that private placements can also generate proceeds exceeding $1 billion. These two examples illustrate that despite similar rationales of production expansion to meet customer demand and similar significant financing needs, some ESG-growing firms conduct private placement rounds over IPOs.

As another obtainable financing instrument for Oatly that was rejected in 2021, we observed other ESG-promoting firms pursuing a sale. One example is the German spice manufacturer Ankerkraut. The firm, claiming to produce and operate in a sustainability-inclined manner, has been acquired by Nestlé in April 2022 to benefit from the conglomerate's expertise and supply chain (Nestlé, 2022). However, briefly after the announcement, marketing partners terminated their contracts with Ankerkraut and the firm has been strongly criticized by consumers, claiming that Ankerkraut's management is greedy and betrays the firm's core values (Süddeutsche Zeitung, 2022). According to an analysis, the firm has faced severe brand image damages and customers are significantly less inclined to recommend the products (Schneider, 2022). This example illustrates well how vulnerable firms may be to reputation risks when they build their brand and mission on ESG values. As an opposing example with no notable public outrage, Blackstone acquired Sphera in July 2021, a leading provider of ESG software, data, and consulting services. This acquisition enabled Sphera to accelerate its growth trajectory and Blackstone to increase its investment activities in ESG-compliant firms (Blackstone, 2021). While we discussed previously that Oatly encountered large public criticism from a Blackstone investment and Ankerkraut from being acquired by Nestlé, we argue that this risk may have been less pronounced for Sphera as its products are in the B2B segment and target other businesses rather than private individuals. Hence, businesses might evaluate the transaction more pragmatic, assessing that the Blackstone investment will improve Sphera's products and enable the firm to service even more customers in making ESG-compliant investment decisions. In contrast, Oatly customers evaluated the Blackstone transaction more emotionally, emphasizing the misalignment between Blackstone's historic activities rather than appreciating the financing that might allow Oatly to increase the share of plant-based products versus regular dairy products and to expand its manufacturing to be more sustainable.

As the last instrument in scope, there were also ESG-growing firms conducting debt financing. For instance, the Danish logistics company Maersk has issued a €500 million green bond in November 2021. This bond aims on supporting the company in its goal to become carbon neutral by 2050. Pursuing a green-debt instrument allows Maersk to improve its reputation, diversify its investor base, and has also yielded the lowest coupon rate ever recorded for the firm at 0.75% (Maersk, 2021). Another example is the French utility company Engie, which issued a €1.5 billion green bond in November 2021. This green bond serves to finance further renewable energy as well as energy efficiency projects and makes Engie the self-proclaimed "corporate leader in the issue of green bonds" with more than €14 billion of said bonds issued since 2014 (Engie, 2021). As Maersk and Engie are big players in the logistics and energy industry respectively, that are known for having contributed significantly to climate change, a green debt instrument may have been favoured over a regular debt instrument or equity financing as the transaction allowed the firms to credibly communicate their shift to higher levels of sustainability. Also, as the firms are already publicly listed, there were most likely only few additional complexities and disclosure requirements attached. Lastly, both firms have been operating profitably for many years, allowing tax shield benefits, repaying debt, and showing sufficient creditworthiness.

As illustrated, there is no one size fits all financing approach for ESG-growing firms, as different factors affiliated with the financing need make different methods of financing more respectively less attractive. As Oatly states, they believe further substantial additional financing will be required in the future to achieve goals (Oatly, 2022, p. 11) for which they are open to various instruments including "public or private equity or debt financing or other sources, such as strategic collaborations" (Oatly, 2022, p. 11). We are certain that Oatly will make use of various other financing methods in the future, which need to be assessed on a case-by-case basis according to future circumstances. For instance, Oatly might conduct further equity financing through equity issuances at Nasdaq or a cross-listing at Hong Kong, when the firm evaluates the stock price and public market environment to be favourable or wants to further promote its brand in the Asian market. A sale of the company at some point might also be an option if an acquirer is found that perfectly aligns with the firm's values and does provide significant synergies. Also, debt financing might become more relevant once Oatly shows improvements on its income statement, enabling tax shield synergies, servicing of debt, and potential further credibility boosts through green instruments.

5.4. A Company Should Not Underestimate Public Scrutiny and Short-Term Pressure from Public Markets

On the one hand, going public brought Oatly immense media attention and press coverage from important business news outlets such as Bloomberg, Forbes, and The Wall Street Journal as well as mainstream media like CNBC, CNN, The Guardian, and The New York Times. Most news coverages focused on four recurring motives: Oatly's sustainable footprint, the provocative and thought-provoking marketing initiatives, the strong growth record of oat milk in key markets, and comparisons to other sustainable companies in the food & beverage segment such as Beyond Meat. While it is difficult to quantify the impact of media attention on Oatly’s popularity and sales, we strongly assume that the widespread and mostly favourable press coverage positively affected Oatly’s brand recognition. On the other hand, going public made Oatly more susceptible to negative press coverage as well. While Oatly had already experienced negative publicity during its last private financing round, when Blackstone joined as an investor, leading to boycotts and negative press, Oatly was not fully prepared for the even more increasing pressure once being publicly listed. Shortly after the IPO, this was made clear:

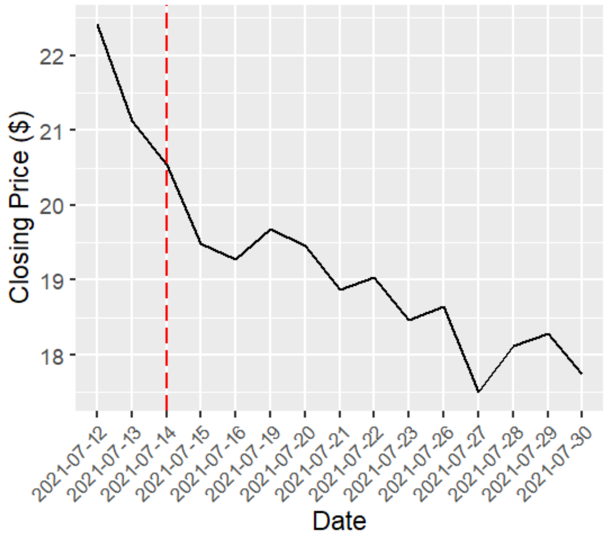
On the 14th of July 2021, Spruce Point published a research report expressing its strong opinion that Oatly at the time is significantly overvalued and has a massive shortcoming in its business plan, competitive positioning, production, and management. Spruce Point was founded in 2009 and is a New York-based investment management firm. The company focuses on active equity investments, especially short-selling, value, and special situation investments (Spruce Point, 2021b). A typical short-selling investment works by acquiring a significant short stake in a company and subsequently publicly releasing a research report explaining allegedly uncovered shortcomings or upright fraud of the company in question. In this case, while it is not disclosed if and to what extent Spruce Point had amassed a short stake in Oatly, it is very likely to assume that the company had done so. Therefore, when evaluating the report regarding Oatly, it is important to recognize that Spruce Points stands to profit from as much negative publicity towards Oatly as possible, potentially jeopardizing the credibility of some or all points made. We will shortly describe Spruce Point´s main criticism but refrain from evaluating the validity of these statements. We will rather focus on the consequences on Oatly following the release of the report in light of the recent IPO.

To start with, Spruce Point raises questions regarding the sustainability of Oatly´s business model, especially regarding its more recent international expansion. The activist investor claims that Oatly selects and displays only favourable environmental KPIs and ignores more negative results, e.g., its water consumption (Spruce Point, 2021a, p. 17). Furthermore, Spruce Point believes that Oatly has made grave mistakes in planning the logistic and transportation of its new facilities, increasing their environmental impact as well as its future production costs per litre of oat milk (Spruce Point, 2021a, p. 39). Second, Spruce Point criticizes multiple employees of Oatly´s finance and accounting division regarding alleged previous misconduct and scandals at previous employers (Spruce Point, 2021a, pp. 24–26). Third, Spruce Points cites an interview with a former employee questioning the validity and correctness of Oatly´s financial statements regarding CAPEX and depreciation accounting, especially in connection to the new expansion facility in Utah, USA (Spruce Point, 2021a, pp. 29–36). Fourth, Spruce Point mentions the high turnover for auditors with Oatly having been audited by three different auditors within six years (Spruce Point, 2021a, p. 43). Other criticism includes that Spruce Point does not trust Oatly´s accounting overall as they list alleged discrepancies in Oatly´s revenue, gross profit, inventory, and CAPEX accounting (Spruce Point, 2021a, p. 45). Moreover, the research paper mentions more criticism including a negative market outlook, distrust regarding the growth story and brand equity of Oatly as well as additional risk factors (Spruce Point, 2021b).

The report issued by Spruce Point gained a lot of attention with many reputable news pages elaborating on the story including CNBC, Forbes, Reuters, and Business Wire (Lucas, 2021; Sampath & Carew, 2021; Sorvino, 2021; Spruce Point, 2021c).

As the report was published only shortly after Oatly´s IPO, the company was still in the quiet period, therefore not allowed to issue an extensive response to the criticism. Furthermore, the company believed that the best strategy to handle the report was to investigate the research without drawing too much public attention. Oatly conducted an internal investigation on the points raised by Spruce Point which involved multiple high executives and thus occupied valuable resources. The company concluded the criticism was unsubstantiated and untrue and communicated these findings.

Despite Oatly not finding any issues in their internal audit, Spruce Point´s research report seemed to affect Oatly´s stock price. On the 14th of July 2021, Oatly´s share dropped by 2.83% and continued to fall in the days after (see *Figure 2* for Oatly´s stock price after the release of Spruce Point´s report). To investigate whether the report had any impact on Oatly's stock price, we conducted an event study covering the period up to two trading days after the release date. For this period, we ensured that there were no additional events that might have impacted Oatly´s stock performance. Please refer to *Section 3.3.2.* for further information on the methodology of the event study. The resulting graph (see *Appendix 13*) indicates a cumulative abnormal return ("CAR") of (-)5%. When evaluating the impact of Spruce Point´s research paper it is important to mention that Oatly´s stock has already dropped the two days before. If one would include the 12th and 13th of July, the CAR would increase to about (-)10% and (-)13% respectively (see *Appendix 14* and *Appendix 15*). This suggests that the decline in Oatly´s stock price was not necessarily caused by the short seller. This is confirmed by testing the CAR for significance. When defining the event time from the 14th of July to the 16th of July, none of the CARs are statistically significantly different from zero. However, when defining the event window from the 13th of July, the CAR for the first three days until the 15th of July is statistically significantly different from zero at the 10% level. If one incorporates the 12th of July, this also leads to a statistically significant CAR on the 15th of July (see *Table 4* for statistical output). This leads us to the conclusion, that while the release of the report might have increased the impact on Oatly´s share price, there was already a decline before the report was published and the release alone did not impact the shares significantly. Nevertheless, we believe that the report had a significant impact on Oatly by tying up valuable management resources. Generally, the event can be viewed as an example of the increased public scrutiny which Oatly experienced due to it being publicly listed.



Note: The black line shows Oatly's closing price, the dotted red line indicates the release date of the research report.

Figure 2. Oatly´s Stock Price Development After the Release of the Research Report

	Start date: 14.07.2021		Start date: 13.07.2021		Start date: 12.07.2021	
Date	t-stat	p-stat	t-stat	p-stat	t-stat	p-stat
12.07.2021	n/a	n/a	n/a	n/a	-2.49	0.0284
13.07.2021	n/a	n/a	-1.48	0.1659	-1.76	0.1036
14.07.2021	-0.89	0.3899	-1.67	0.1200	-1.95	0.0745
15.07.2021	-1.38	0.1923	-1.98	0.0711	-2.22	0.0462
16.07.2021	-0.70	0.4992	-1.34	0.2047	-1.65	0.1240

Table 4. Output of Testing the Results of the Event Study for Statistical Significance.

While many firms, especially with new and less proven business models experience short-selling attacks and are prone to negative news coverage, this kind of public scrutiny can be extremely dangerous for firms relying on their sustainable image. Losing the trust of its consumers or investors could cast serious doubt on its whole business model and lead to direct costs or loss of revenue due to boycotts. While these allegations can often be proven to be wrong or misleading, it nonetheless consumes valuable resources and management time.

Furthermore, investors in the public market are much more critical regarding quarterly updates and financial reports, especially regarding the company meeting expectations. Missing those can have long-lasting effects on the share price of the company and therefore the ability to further finance itself. Since most executives believe that the positive impacts of ESG programs are mostly of a long-term nature (McKinsey, 2020), this could create additional potential for conflict between a sustainable company’s management and its public shareholders.

Thus, companies considering going public should be aware of the high level of public scrutiny that will await them and invest correspondingly to build up the necessary capabilities for public communication and expectation management. Companies marketing their sustainability need to be especially careful, as they are very vulnerable to allegations regarding their green impact. Thus, they need to ensure that any marketing is based on verifiable and true claims. This phenomenon can also be observed in other ESG companies. Allbirds had to drop their claim of having conducted the first sustainable IPO after complaints from the SEC (Palese, 2021) and Beyond Meat and other plant-based food companies came into criticism since their sustainable impact compared to traditional food was almost impossible to measure, despite their own claims (Creswell, 2021).

6. Limitations

We acknowledge, that this thesis is facing several limitations. First, the case study portrays Oatly’s thought process in a simplified manner and may lack certain insights. Generally, the case study strongly builds on interviews that were conducted with stakeholders in Oatly’s IPO decision. Albeit we have gathered insights from Oatly directly as well as from stakeholders with various roles, we cannot preclude that our elaboration on the thought and decision process is complete. It is reasonable to assume that interviewees did not disclose all accompanying information due to confidentiality reasons. Also, we have only had the chance to talk to five stakeholders out of 27 whom we reached out to in total. Particularly, none of the three leading underwriters Morgan Stanley, J.P. Morgan, and Credit Suisse as well as the biggest shareholder Nativus were responding to our inquiries. Given the limited extent of a master thesis, we also had to simplify the illustration at certain points to ensure that the most relevant aspects are covered to an appropriate extent.

Second, our thesis primarily aims on describing the thought process and different arguments in play when Oatly made its financing decisions. While quantitative analyses are a useful addition in understanding Oatly’s thought process and analysing Oatly’s stock performance, they are not the key focus of this thesis and are only meant to supplement our elaborations. Thus, considering our outlined ambition, the quantitative methods are naturally restricted in terms of their degree of elaboration. For instance, the valuation in this thesis is only meant to represent a potential market view on Oatly, since it was not possible for us to reconcile Oatly’s valuation perspective due to not obtaining necessary internal company information. Gaining this market perspective, however, did imply that we could not fully obey academic standards of corporate valuation, as both investors, as well as equity researchers, do also deviate from said standards. We do not believe that conducting a valuation fully complying with current academic standards would shed further insights as it would not reflect the market or Oatly´s view on the company´s valuation. As another quantitative method, the event study, assessing the impact of the short-selling report on Oatly's stock, has been conducted with a simplified market model, rather than a more detailed multiple factor model. We acknowledge that the results only show low levels of statistical significance, which can, however, be explained because of the short time horizon of Oatly´s stock history.

Lastly, the insights from the Oatly IPO may be subject to limited applicability for other firms. It must be noted that our case describes a specific event and findings from it may only apply in this specific context. We acknowledge that each firm is highly individual and despite facing a similar dilemma or long-term ambition, different financing methods may be preferable. Also, financing instruments are subject to different trend waves in popularity and IPOs may become less or more popular at any point in time. Our findings' main contribution for other firms is to serve as food for thought when similar specifics arise. Also, we derived four more general takeaways for other green firms that should be considered when pursuing long-term financing respectively conducting an IPO.

7. Conclusion

At the time of Oatly's IPO in May 2021, there have only been very limited insights on the specific considerations of firms with a high inherent degree of sustainability on their long-term financing decisions. Particularly, we did not find any other publicly available case study that revolved around the IPO of a green firm with a focus on this firm's thought process. Hence, our ambition of this thesis was to shed light on that matter, which we deem to gain increasing relevance in the future and contribute to the academic body of research, while also providing a case that can be adapted for teaching purposes to train students. For this, we elaborated on the following research questions: *What was the thought process of Oatly when deciding to go public and how did Oatly's inherent sustainability affect its decisions? What were the advantages and drawbacks compared to other financing methods? Which conclusions can be generated from Oatly's IPO for other sustainable firms when seeking financin*g?

We found that Oatly's financing decisions were based on the dilemma of high growth ambitions that were only achievable with capital-consumptive production expansion to meet increasing customer demand for plant-based dairy alternatives. Notably, the dilemma was affiliated with significant ESG concerns, as Oatly needed to ensure that the production expansion does not hamper the firm's sustainability efforts and core values. Oatly conducted several financing activities to prepare for these expansions, including private placements, private loans, and SLLs. However, the fundamental key activity was the decision to conduct an IPO at the Nasdaq stock exchange in New York. The IPO was conducted for various reasons: First, it was able to provide sufficient funding at an attractive valuation given the high pressure on investors to invest ESG-conform and Oatly's strong growth opportunities and risk mitigation capabilities boosted through the firm's inherent sustainability. Second, it allowed existing shareholders to partly exit and have higher flexibility to manage their ownership once being listed, as Oatly has been taking an increasing share in investors' portfolios due to the increasing relevance of sustainability. Third, the public attention generated through it was assessed positively, particularly because Oatly is relying strongly on its sustainable brand perception to accomplish further growth.

We also investigated why other financing alternatives were discarded: We figured out that most alternatives were deemed to not provide sufficient capital, not allow the same exit opportunities for investors, and be accompanied by less public attention. Moreover, we not only identified other drawbacks that may have been considered by Oatly but also pointed out potential benefits of other financing methods.

We also concluded four major takeaways that are more generally applicable for other green firms pursuing long-term financing: First, we found that ESG firms are not completely different from regular firms regarding financing decisions and investor perception. Managers, investors, and the market have very traditional approaches when deciding on financing solutions driven by rational economic and financial considerations rather than intrinsic motivation to support ESG firms. Second, we found that the early choice of investors may impact the attractiveness and feasibility of future financing methods, such that green firms may choose investors not only based on financials but also based on investors' capabilities to enable specific future financing and open capital markets. Third, we illustrated that each financing decision of green firms must be conducted on a case-by-case basis as their dilemmas and opportunities may not resemble what has been commonly observed by peers. Looking back, different firms with seemingly similar challenges have been successful with different financing methods. Lastly, we derived that short-term pressure and scrutiny from public markets should not be underestimated and that green firms may be particularly vulnerable due to their strong emphasis on core values and brand reputation as well as high uncertainty in their operations.

We want to finish this thesis by providing three suggestions for future research: First, we believe that case studies of similar inherently sustainable firms that experienced comparable dilemmas would be of great interest to gain a greater sample of thought processes and derive derivations of considerations. Second, we propose to conduct large sample surveys and interviews with management and shareholders from both green and non-green firms on their evaluation of the advantages and disadvantages of various financing methods. This may lead to interesting insights into whether perceptions of the attractiveness of financing decisions may vary between firms with different degrees of sustainability. These insights may also lead to relevant implications for banks and investors, which are commonly on the other end of such transactions, in their investment decisions. Lastly, we would like to encourage further research on the differences in costs of capital between green and non-green firms. While we acknowledge the existence of research on e.g., green bond premiums or lower underpricing levels of green IPOs, we have not found any research accumulating all potential financial advantages of green firms. We hypothesize that green firms currently may experience differences in cost advantages respectively disadvantages between debt and equity financing methods. In combination with our second suggestion, this may explain differences in the perception and actual conduction of distinct financing methods.

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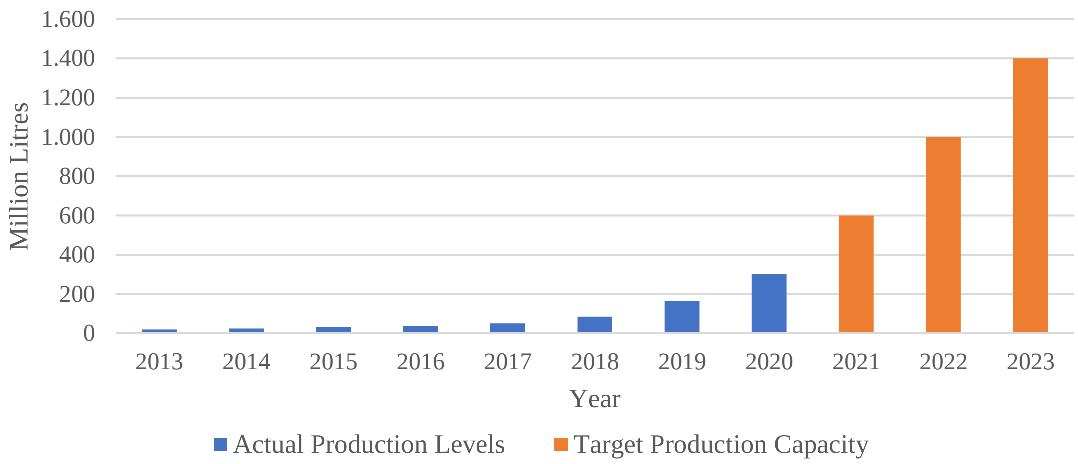
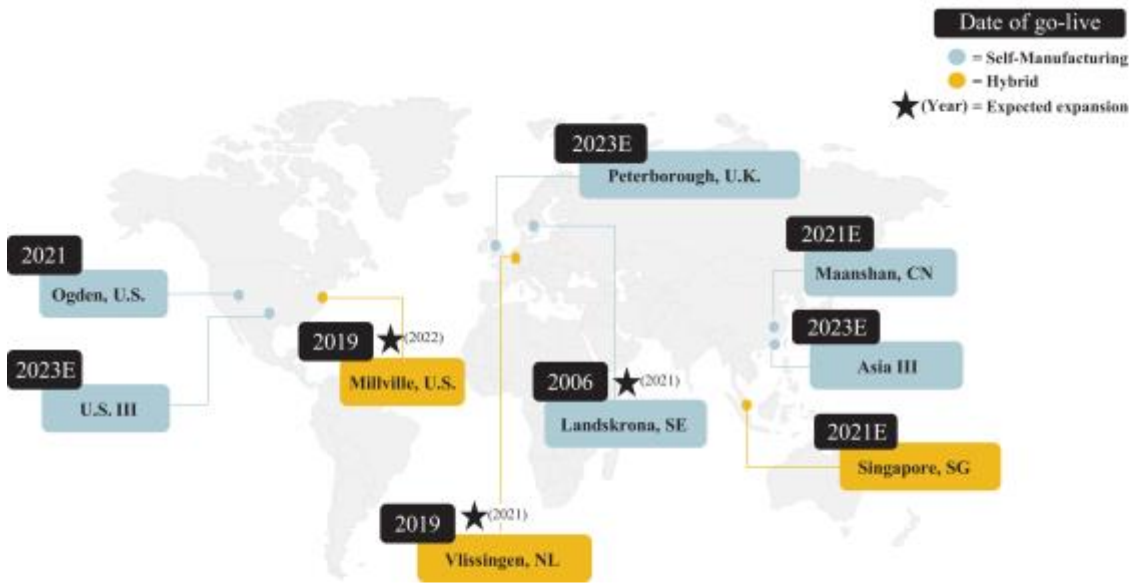
9. Appendix

Appendix 1. Historical Production Levels Until 2020 and Target Production Levels From 2021 According to Oatly's IPO Prospectus (in Million Litres of Finished Goods)



Appendix 2. Map Displaying Current and Future Production Sites According to Oatly's IPO Prospectus



Appendix 3. The IPO Process

The IPO process for Level III ADR does not differ significantly from the regular IPO process. We will only consider Level III ADRs since they are the only type of ADR undergoing a typical IPO process comparable to regular stock. Furthermore, Level III ADRs are the instrument chosen by Oatly and thus the most relevant for this thesis.

After deciding to go public and ensuring IPO readiness, a company must select its preferred underwriters and an engagement letter will be signed which contains details about the underwriter´s compensation. In the case of an ADR, depository banks must be selected as well. Typically, the IPO process kicks off with the *all-hands meeting*, which is a meeting of all parties involved in the company´s IPO process. Here, potential timelines, regulatory requirements, planned milestones and more details are discussed. Afterward, the company and its advisors conduct due diligence to prepare a first draft of an S-1, for US companies, or an F-1 registration statement, for foreign issuers, also called a prospectus. Foreign issuers that already fulfil substantial reporting in other countries might be subject to the simplified F-3 statement. In any case, the company is required to issue amendments to the respective filing document whenever there are substantial changes during the whole registration phase (Darrow et al., 2008, pp. 9–10). Once the draft of the registration statement is filed, the SEC will review it for potential misleading or excluded information. This first review usually takes around 30 days. The SEC then will provide comments and requires the company to return an amended version of the filing. This will repeat until the SEC is satisfied with the filing (*Navigating The IPO Process*, 2022).

During that process, the company will also create a *red-herring document*. This is a preliminary prospectus made available for potentially interested investors before the registration statement is officially in effect.

Meanwhile, the issuer and its underwriters will begin negotiations on the pricing range of the IPO. This is mostly based on valuations, capital raising needs and expected market demand. Hereafter, the company organizes a roadshow, where high-level executives and underwriters market the issue to potential investors, mostly institutional investors, hedge funds and financial analysts. Based on the interest of these investors and their willingness to pay for the shares, a final offering price is retrieved.

After the price is determined, and the final registration statement is filed, the underwriting agreement is signed. This document specifies exactly how many shares to what price each underwriter is to sell as well as potential overallotment allocations. After the underwriting agreement is signed and the registration filing is effective the shares begin to trade at the preselected stock exchange.

A few days after trading starts, a closing meeting is held where the required shares are transferred from the company to the underwriters and the company receives the proceeds of the IPO.

The company is subject to a quiet period starting from its first filing of a registration statement which will last up to 40 days after the first trading day of the company´s stock. During that period, the company is not allowed to publicize any information about its business that is not included in its SEC filings (Corporate Finance Institute, n.d.-a).

Appendix 4. Listing & Reporting Requirements

Becoming a publicly listed company in the U.S. requires a substantial amount of reporting. Besides the aforementioned F-1 statement, also an F-6 form has to be filed. This is usually done by the depository bank while the foreign company only needs to sign the document. While the filing itself is rather simple, the underlying security must have two characteristics. First, it must be registered under *Section 12 of the Exchange Act* or be exempt from it. Second, the holder of the ADR must possess the right to exchange it for the underlying security at any time. Therefore, this exchangeability is a necessary characteristic for an ADR to be used in an IPO. If the ADR is to be traded at a U.S. stock exchange, it must be registered under the Exchange Act. Companies already fulfilling a certain degree of reporting requirements can do so by filing a simplified 8-A Form. Other companies need to register an initial 20-F form which is subject to SEC review and a lot more substantial than the 8-A (Darrow et al., 2008, pp. 10–11).

Besides initial filing documents, companies with trading ADRs also need to fulfil periodic reporting requirements. The companies need to issue annual reports no later than four months after the end of their fiscal year (Skadden, Arps, Slate, Meagher & Flom LLP, 2021). This is done in form of a 20-F filing contrary to the 10-K filing of U.S. firms. Moreover, while foreign firms are exempt from quarterly reports, they need to file statements that disclose any information that might be of material interest to their U.S. shareholders. There are three types of information that the company needs to disclose: First, any information it is required to disclose under the regulations of its home country; second, all information made public by the stock exchange the company’s securities are listed at; and last, all information the company provides to its shareholders (Darrow et al., 2008, pp. 14–15).

Similar to U.S. equities, investors who acquire more than 5% beneficial ownership in foreign companies listed with ADRs need to disclose their ownership stake. Furthermore, other reporting standards such as the *Sarbanes-Oxley Act* and the *Foreign Corrupt Practices Act* also apply (Darrow et al., 2008, pp. 16–17).

Appendix 5. Summary of Indices Used for Oatly´s Stock Price Evaluation

The Nasdaq Composite index (ticker: COMP). The index consists of 3,739 securities traded on the Nasdaq stock exchange that are any of the following security types: common stocks, ordinary shares, ADRs, shares of beneficial interest or limited partnership interests, and tracking stocks (Nasdaq, Inc., 2022). We use this index as an approximation for the Nasdaq and the U.S. market overall.

The OMX Nordic Exchange Stockholm index (ticker: OMXSPI). This index reflects all shares listed on the OMX Nordic Exchange Stockholm. It currently consists of 393 securities (Nasdaq, Inc, n.d.). For our analysis, the index is used as a substitute for the Swedish market.

The MSCI Europe ESG Leaders index. Currently, the index consists of 202 securities of companies that perform very well on ESG criteria as screened by MSCI ESG Research. The index only includes companies from a selection of 15 developed markets in Europa, namely Austria, Belgium, Denmark, Finland, France, Germany, Ireland, Italy, the Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the U.K. (MSCI, Inc., 2022a). For this thesis, the index is used as a substitute for European ESG companies.

The MSCI USA ESG Leaders index. Similarly, this index is used to represent US ESG companies. The index comprises 269 securities and is otherwise structured identically to the MSCI Europe ESG Leaders index apart from its focus on U.S. companies (MSCI, Inc., 2022).

The Dow Jones U.S. Food & Beverage index (ticker: DJUSFB). The index consists of 33 different equity securities in the food & beverage industry which are listed on the NYSE, Nasdaq or Toronto stock exchange (Commerzbank, 2022). We use this index to test for a potential correlation between Oatly and the U.S. food & beverage market.

The Renaissance U.S. IPO index (ticker: IPOUSA). As a last potential factor influencing Oatly´s stock return, we analyse this index designed to capture the most recent, largest, and most liquid IPOs in the U.S. The Index is rebalanced quarterly and currently consists of 99 securities (Renaissance Capital LLC, 2022). We believe this index to be an adequate representation of the U.S. IPO market.

Appendix 6. Detailed Information Regarding the Calculation of the Event Study regarding Spruce Point´s Short Selling Report

To calculate the estimated returns of Oatly during the event period we use a market model following the formula below:

$$R_{it} = \alpha_i + \beta_i R_{mt} + \varepsilon_{it}\ , where$$

R_{it}=Return of the security

R_{mt}=Return of the market index

t=Estimation window

We use the *iShares MSCI World Index ETF* as a proxy for the market return. Using the results of the marked model, we can calculate an abnormal return and cumulative abnormal return for the shares using the below formulas:

$$\widehat{AR_{\iota t}} = R_{it} - \widehat{\alpha_\iota} + \widehat{\beta_\iota} * R_{mt}\ \ , and$$

$$\widehat{CAR_\iota}(t1, t2) = \sum_{t1t=t1}^{t2} AR_{it}\ \ , where$$

t=Event window

Furthermore, we will test the significance of the ARs and CARs:

$$\mathrm{t-statistic\ AR} = \frac{AR}{\widehat{\sigma}}\ , where$$

$$\sigma^2_{\epsilon,i} = \frac{1}{L-2} * \sum_{T=0}^{T1} \epsilon_{it}$$

$$\mathrm{t-statistic\ CAR}\ = \frac{\widehat{CAR_\iota}(t1, t2)}{\widehat{\sigma}_{\ i}}\ , where$$

$$\widehat{\sigma_\iota} = \sqrt{t2 - t1 + 1} + \sigma_{\epsilon,i}$$

Appendix 7. Principles of Corporate Valuation

To understand the valuation and the related capital proceeds Oatly could expect to achieve by going public, we conducted an extensive DCF valuation. DCFs are the most commonly used method to value IPOs (Deloof et al., 2009) as well as being well-established and long-lasting (Miles & Ezzell, 1980; Modigliani & Miller, 1958, 1963). Since we aim to understand Oatly´s motivation in pursuing an IPO, it is more important to us to reconcile what the market at that time would have been willing to value Oatly, rather than explore the true, intrinsic value of the company. Therefore, our valuation approach follows practitioner's standards and guidelines rather than academically correct models, even though we are aware that valuation techniques used by analysts are often flawed (Green et al., 2016).

We follow the guidelines described in *Valuation Methods and Shareholder Value Creation* (Fernandez, 2002, pp. 37–46) to conduct our valuation. Specifically, we calculate the free cash flow to firm and discount the resulting cash flows with the WACC. The WACC will be calculated using the following formula described in *Valuation Methods and Shareholder Value Creation*.

$$WACC = \frac{E * C_E + D * C_D * (1 - T)}{E + D} \text{ , } where$$

E=*Market value of equity*

D=*Market value of debt*

C_E=*Required return on equity*

C_D=*Cost of debt before tax*

T=*Tax rate*

Since Oatly does not have any outstanding public debt instruments, which could be used to calculate the cost of debt, we use the private SRCF described in *Section 4.4.4.* to approximate Oatly´s cost of debt. We believe that the terms of the SRCF are a very good substitute for public data since the SRCF is directly connected to the IPO and therefore should depict the market´s view on Oatly at the time of the IPO. The terms of the SRCF provide an interest rate consisting of a margin of 2.25% added to a reference rate. Since most of the reference rates at the time of the IPO revolved at a level close to zero, we can approximate the interest rate of the SRCF to 2.25% for the purpose of calculating the cost of debt for Oatly. To receive a meaningful long-term cost of debt we incorporate a premium of one percentage point on the 2.25% of the SRCF. This has a multitude of reasons. To start with, the SRCF has a short time horizon of only three to five years, but we aim for the cost of debt to represent a long-term rate. Since the yield curve usually increases with maturity (Corporate Finance Institute, n.d.-b), a longer debt item should have a higher interest rate correspondingly. Furthermore, an SLL usually has a slightly lower interest rate than non-green debt items. While it is likely that Oatly would also be able to issue green and other SLDIs in the future, most likely not all their debt financing will consist of these instruments. Lastly, while the current low-interest-rate environment provides for reference rates around zero percent, this is not necessarily true for the entire foreseeable future. Therefore, we end up using a cost of debt before tax of 3.25%. Furthermore, since there is no available market value for debt, we will substitute it with the book value of debt for all calculations.

Since Oatly has not been profitable yet and therefore has no meaningful corporate tax payments yet, we utilize the marginal tax for Sweden of 20.60% as calculated by KPMG International Limited for 2021 (KPMG, 2021).

To calculate the required return of equity, we will use the capital asset pricing model defined as follows:

$$C_E = r_f + \beta\left(r_m - r_f\right), where$$

r_f=Risk-free rate

β=Levered beta of relevant asset

r_m =Market return rate

For the risk-free rate, we use the 10-year Swedish government bond yield as of 19th of May 2021 of 0.45% (World Government Bonds, 2022). We believe that the Swedish government bond is the best rate to apply since Oatly is still a Swedish company with large exposure to European markets in production and sales. We calculate an unlevered beta for Oatly by selecting a suitable peer group, retrieving their respective two-year levered beta, subsequently unlevering these betas and using the median of those betas as an approximation for Oatly´s beta. Afterward, we relever the beta of Oatly with a target D/E ratio of 10%. We choose the two-year beta since the whole sustainable food & beverage market is not yet very mature, and there is still high volatility in the market. Therefore, we believe that choosing a longer-term beta would skew our results. Furthermore, a period of 2 years covers effects before and during the covid-19 crisis, which we believe is highly applicable, since the effects of the crisis will continue in the future but most likely decline over the long term. When selecting the peer group, we choose companies that follow similar underlying trends and market developments. This led us to select the companies portrayed in the table below. When calculating the unlevered beta of each company we use the following formula:

$$\beta_U = \frac{B_L}{1 + D/E}, where$$

βU=Unlevered beta of relevant asset

βL=Levered beta of relevant asset

We decided to use this formula to unlever and relever the betas instead of a formula that would include a tax shield as we believe Oatly and the market to be in an early state where due to changes in profitability the tax rate is not yet fixed long-term. We believe a target D/E ratio of 10% to be meaningful as we do not incorporate any significant debt financing aspirations in the DCF other than leasing activities. While we are aware that debt financing might be a feasible solution for Oatly´s future financing, we decided to use equity financing for the purpose of this valuation. We use an approximation of 6% for the market risk premium (r_m-r_f) as we believe this is a practice often used by investment banks and other market participants. Furthermore, consulting the data published by Aswath Damodaran, a well-used source in practice, yields similar results (Damodaran, 2021).

Company	Description
Beyond Meat, Inc.	Producer of plant-based meat substitutes
Valsoia S.p.A.	Producer of mostly plant-based food & beverage items
Lifeway Foods, Inc.	Producer of dairy and non-dairy milk products
SunOpta, Inc.	Producer of plant and fruit-based food & beverage items

Table. Selected Peer Companies for Beta Calculation

While a DCF uses the most internal data of a company it is still highly affected by forecasts and assumptions about the discount rate. Therefore, it is useful to supplement the valuation with an additional method. Thus, we will also take a look at comparable companies to be able to use multiples to value Oatly. Since Oatly does not yet achieve positive EBITDA, positive EBIT or positive net income, we will only use an enterprise value / revenue multiple. To calculate this multiple we use the enterprise value as of the 20th of May 2021, provided by *Capital IQ*, and divide it by the revenue of the respective companies in the fiscal year 2020. When selecting the peer group for Oatly, we started by using the peer group used in the calculation for beta. Since all these companies are affected by underlying trends in the food & beverage market, as well as ESG trends, we believe they are comparable from a market risk perspective. Besides risk, a second important factor that influences multiples is growth expectation. Hence, it makes sense to screen the peer group further to only select companies that are comparable in this dimension. As growth expectations are extremely hard to measure, we will use the last two-year growth as a proxy. Thus, as only Beyond Meat shows a comparable growth rate (239% in 2019, 37% in 2020, CAGR of 115% from 2018 to 2020) to Oatly, we deem it to be the only reasonable peer to use for a multiple analysis. Calculating Beyond Meat´s revenue multiple as described above results in a value of 16.7. We will apply this multiple and discuss its usability further in *Section 4.4.2*.

For both, the DCF as well as the multiple analysis we used the initiating coverage reports of J.P. Morgan (Goldman & Naughton, 2021), Jefferies (Dickerson et al., 2021), and Nordea (Stjernholm & Stenkil, 2021) to compare our assumptions with the assumptions made by investment professionals at that time to ensure our valuation adequately represents the market opinion at the time of the IPO.

Appendix 8. Forecasted Income Statement

Income Statement											
in $ million	**2021E**	**2022E**	**2023E**	**2024E**	**2025E**	**2026E**	**2027E**	**2028E**	**2029E**	**2030E**	**2031E**
Revenue	674	1,045	1,567	2,273	3,182	4,296	5,584	6,980	8,376	9,633	10,596
% Growth	*60%*	*55%*	*50%*	*45%*	*40%*	*35%*	*30%*	*25%*	*20%*	*15%*	*10%*
COGS	(438)	(658)	(972)	(1,386)	(1,909)	(2,556)	(3,295)	(4,083)	(4,858)	(5,587)	(6,146)
Gross profit	236	387	596	886	1,273	1,740	2,290	2,897	3,518	4,046	4,450
Gross profit margin	*35%*	*37%*	*38%*	*39%*	*40%*	*41%*	*41%*	*42%*	*42%*	*42%*	*42%*
SG&A	(270)	(376)	(470)	(636)	(859)	(1,117)	(1,396)	(1,745)	(2,094)	(2,408)	(2,649)
% of Sales	*(40%)*	*(36%)*	*(30%)*	*(28%)*	*(27%)*	*(26%)*	*(25%)*	*(25%)*	*(25%)*	*(25%)*	*(25%)*
R&D	(10)	(16)	(24)	(34)	(48)	(64)	(84)	(105)	(126)	(144)	(159)
% of Sales	*(2%)*	*(2%)*	*(2%)*	*(2%)*	*(2%)*	*(2%)*	*(2%)*	*(2%)*	*(2%)*	*(2%)*	*(2%)*
EBITDA	(44)	(5)	102	216	366	558	810	1,047	1,298	1,493	1,642
EBITDA margin	*(7%)*	*(1%)*	*7%*	*10%*	*12%*	*13%*	*15%*	*15%*	*16%*	*16%*	*16%*
Depreciation/ Amortization	(33)	(37)	(67)	(84)	(90)	(87)	(82)	(75)	(73)	(69)	(65)
% of PPE	*14%*	*13%*	*11%*	*10%*	*10%*	*9%*	*8%*	*7%*	*7%*	*6%*	*6%*
EBIT	(77)	(42)	35	132	276	471	728	972	1,226	1,424	1,577
EBIT margin	*(11%)*	*(4%)*	*2%*	*6%*	*9%*	*11%*	*13%*	*14%*	*15%*	*15%*	*15%*
Interest expense	(7)	(10)	(16)	(23)	(32)	(43)	(56)	(70)	(84)	(96)	(106)
% of Sales	*(1%)*	*(1%)*	*(1%)*	*(1%)*	*(1%)*	*(1%)*	*(1%)*	*(1%)*	*(1%)*	*(1%)*	*(1%)*
EBT	(84)	(52)	19	110	244	429	672	902	1,142	1,328	1,471
EBIT margin	*(12%)*	*(5%)*	*1%*	*5%*	*8%*	*10%*	*12%*	*13%*	*14%*	*14%*	*14%*
Tax expense	-	-	(4)	(23)	(50)	(88)	(138)	(186)	(235)	(273)	(303)
% Effective tax rate	-	-	*(21%)*	*(21%)*	*(21%)*	*(21%)*	*(21%)*	*(21%)*	*(21%)*	*(21%)*	*(21%)*
Net income	(84)	(52)	15	87	194	340	534	716	907	1,054	1,168
NI margin	*(12%)*	*(5%)*	*1%*	*4%*	*6%*	*8%*	*10%*	*10%*	*11%*	*11%*	*11%*

Appendix 9. Forecasted Balance Sheet (Assets)

Balance Sheet in $ million	**2021E**	**2022E**	**2023E**	**2024E**	**2025E**	**2026E**	**2027E**	**2028E**	**2029E**	**2030E**	**2031E**
Intangibles	158	160	161	163	164	166	168	169	171	173	175
% yoy growth	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*
PPE	607	836	903	966	1,024	1,075	1,118	1,152	1,186	1,210	1,234
% of sales	*90%*	*80%*	*58%*	*43%*	*32%*	*25%*	*20%*	*17%*	*14%*	*13%*	*12%*
% yoy growth	*155%*	*38%*	*8%*	*7%*	*6%*	*5%*	*4%*	*3%*	*3%*	*2%*	*2%*
Right-of-use assets	101	157	188	227	255	279	296	307	318	328	339
% of sales	*15%*	*15%*	*12%*	*10%*	*8%*	*7%*	*5%*	*4%*	*4%*	*3%*	*3%*
% yoy growth	*165%*	*55%*	*20%*	*21%*	*12%*	*10%*	*6%*	*4%*	*4%*	*3%*	*4%*
Other non-current receivables	10	16	24	34	48	64	84	105	126	144	159
% of sales	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*
Total non-current assets	**876**	**1,168**	**1,276**	**1,390**	**1,491**	**1,585**	**1,666**	**1,733**	**1,801**	**1,855**	**1,907**
Inventories	60	90	128	175	225	280	334	380	413	459	505
DIO	*50*	*50*	*48*	*46*	*43*	*40*	*37*	*34*	*31*	*30*	*30*
Trade receivables	111	172	249	349	462	588	719	841	941	1,056	1,161
DRO	*60*	*60*	*58*	*56*	*53*	*50*	*47*	*44*	*41*	*40*	*40*
Current tax assets	1	2	3	5	6	9	11	14	17	19	21
% of sales	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
Other current receivables	13	21	31	45	64	86	112	140	168	193	212
% of sales	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*	*2%*
Prepaid expenses	17	26	39	57	80	107	140	175	209	241	265
% of sales	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*	*3%*
Cash & cash equivalents	382	130	138	151	219	425	820	1,461	2,295	3,266	4,258
Total current assets	**585**	**441**	**589**	**781**	**1,056**	**1,495**	**2,135**	**3,011**	**4,042**	**5,234**	**6,422**
Total assets	**1,461**	**1,609**	**1,865**	**2,171**	**2,546**	**3,080**	**3,801**	**4,744**	**5,843**	**7,088**	**8,329**

Appendix 10. Forecasted Balance Sheet (Equity & Liabilities)

Balance Sheet in $ million	**2021E**	**2022E**	**2023E**	**2024E**	**2025E**	**2026E**	**2027E**	**2028E**	**2029E**	**2030E**	**2031E**
Share capital	1,000	1,100	1,210	1,271	1,271	1,271	1,271	1,271	1,271	1,271	1,271
% yoy growth	-	*10%*	*10%*	*5%*	-	-	-	-	-	-	-
Other cont. capital	448	448	448	448	448	448	448	448	448	448	448
Foreign currency translation	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)	(13)
Accumulated deficit	(203)	(256)	(240)	(153)	40	381	914	1,630	2,537	3,591	4,759
Total Equity	**1,232**	**1,280**	**1,405**	**1,553**	**1,746**	**2,086**	**2,620**	**3,336**	**4,243**	**5,297**	**6,465**
Lease liabilities	81	125	188	273	382	494	614	733	838	915	954
% of sales	*12%*	*12%*	*12%*	*12%*	*12%*	*12%*	*11%*	*11%*	*10%*	*10%*	*9%*
Liabilities to credit inst.	1	1	1	1	1	1	1	1	1	1	1
Other liabilities	1	1	2	2	3	4	6	7	8	10	11
% of sales	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
Total non-current liabilities	**82**	**127**	**191**	**276**	**386**	**499**	**621**	**741**	**847**	**926**	**965**
Lease liabilities	17	26	39	57	80	86	84	70	84	96	106
% of sales	*3%*	*3%*	*3%*	*3%*	*3%*	*2%*	*2%*	*1%*	*1%*	*1%*	*1%*
Liabilities to credit inst.	4	4	4	4	4	4	4	4	4	4	4
% yoy growth	*(20%)*	-	-	-	-	-	-	-	-	-	-
Trade payables	36	54	81	118	165	224	293	369	439	505	556
DPO	*30*	*30*	*31*	*31*	*32*	*32*	*33*	*33*	*33*	*33*	*33*
Current tax liabilities	1	2	3	5	6	9	11	14	17	19	21
% of sales	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*	*0%*
Other current liabilities	7	10	16	23	32	43	56	70	84	96	106
% of sales	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*	*1%*
Accrued expenses	81	104	125	136	127	129	112	140	126	144	106
% of sales	*12%*	*10%*	*8%*	*6%*	*4%*	*3%*	*2%*	*2%*	*2%*	*2%*	*1%*
Total current liabilities	**146**	**202**	**269**	**343**	**414**	**495**	**560**	**667**	**754**	**866**	**899**
Total Liabilities	**229**	**329**	**460**	**619**	**800**	**994**	**1,181**	**1,408**	**1,601**	**1,792**	**1,864**
Total Equity and Liabilities	**1,461**	**1,609**	**1,865**	**2,171**	**2,546**	**3,080**	**3,801**	**4,744**	**5,843**	**7,088**	**8,329**

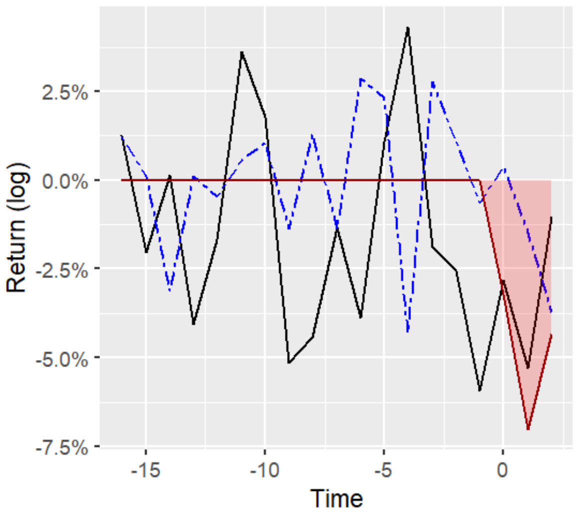
Appendix 11. Allotted Shares and Corresponding Fees to Involved Investment Banks (Excluding the Greenshoe Option)

Name	Fee ($)	Allotted Shares
Morgan Stanley & Co. LLC	17,732,219	21,959,404
Credit Suisse Securities (USA) LLC	13,582,125	16,819,969
J.P. Morgan Securities LLC	13,582,125	16,819,969
Barclays Capital Inc.	3,729,419	4,618,476
Jefferies LLC	3,442,540	4,263,208
BNP Paribas Securities Corp.	3,155,662	3,907,941
BofA Securities, Inc.	2,295,027	2,842,139
Piper Sandler & Co.	1,721,270	2,131,604
RBC Capital Markets, LLC	1,721,270	2,131,604
Rabo Securities USA, Inc.	1,434,392	1,776,337
William Blair & Company, L.L.C.	1,147,513	1,421,069
Guggenheim Securities, LLC	860,635	1,065,802
Truist Securities, Inc.	860,635	1,065,802
China International Capital Corporation Hong Kong Securities Limited	573,758	710,536
Nordea Bank Abp, Filial I Sverige	573,758	710,536
Oppenheimer & Co. Inc.	573,758	710,536
SEB Securities, Inc.	573,758	710,536
Blaylock Van, LLC	95,626	118,422
C. L. King & Associates, Inc.	95,626	118,422
Loop Capital Markets LLC	95,626	118,422
Samuel A. Ramirez & Company, Inc.	95,626	118,422
Siebert Williams Shank & Co., LLC	95,626	118,422
Tribal Capital Markets, LLC	95,626	118,422
Total	**68,133,620**	**84,376,000**

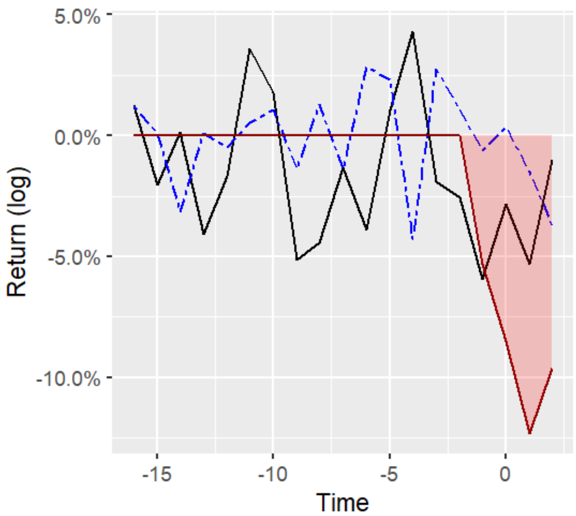
Appendix 12. SLL 2020 and SRCF 2021 Sustainability Targets

Sustainability indicator	2019	2020	2021	2022
Water consumption at the Landskrona factory in L per L product produced	4.0	3.8	3.6	3.4
Energy consumption at the Landskrona factory in kW per L finished goods	0.38	0.38 (-2%)	0.37 (-2%)	0.35 (-2%)
Transport related carbon footprint at the Landskrona factory in g CO2e per L product produced	n/a	The electric transportation between production and ware-house facilities has been contracted	Transport related carbon footprint in g CO2e (per L produced) is reported in the 2020 Sustainability Report	Transport related carbon footprint in g CO2e (per L produced) is reported in the 2021 Sustainability Report
CO2 emissions avoided in tonnes	61	121	197	275

Appendix 13. Event Study Starting From the 14th of July 2021



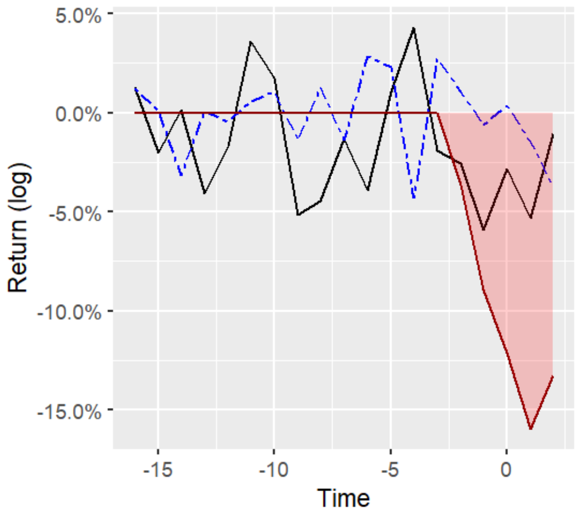
Note: The red line shows the CAR, the blue line the estimated return, the black line the actual return of Oatly, and t=0 denotes the release date of the research report.



Appendix 14. Event Study Starting From the 13th of July 2021

Note: The red line shows the CAR, the blue line the estimated return, the black line the actual return of Oatly, and t=0 denotes the release date of the research report.

Appendix 15. Event Study Starting From the 12th of July 2021



Note: The red line shows the CAR, the blue line the estimated return, the black line the actual return of Oatly, and t=0 denotes the release date of the research report.