Sustainability-Linked Bonds – A Case Study of H&M

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Abstract

The thesis investigates the sustainability-linked bond issuance by fast fashion company H&M in the midst of the Covid-19 pandemic. The study contributes to existing literature by providing observations of real-world practitioners on the cost-benefit considerations of SLB issuance, in particular, challenging the notion of a "free lunch", conversely concluding that the greatest concern is attributed to potential reputational damage in the event of missed targets. Furthermore, we observe that the primary motivation for SLB issuance pertains to strengthening investor relationships and its dexterity in communicating a firm's sustainability commitments to external stakeholders which, on the other hand, acts as a double-edged sword by potentially exposing the firm to greenwashing allegations. Regarding the investor perspective, we identify a tradeoff between diversification benefits and bond verification efforts as well as a potential greenium. We also find that H&M's SLB's success was driven not only by the framework credibility and compelling KPIs, but also by the novelty of the instrument. Lastly, whilst the SLB may not have revolutionized H&M's sustainability strategy, it added urgency and alignment within the firm to its commitments.

Keywords: Sustainability-linked bond, fast fashion, green financing, transition
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Introduction

Sustainability has indisputably evolved into a crucial topic in the corporate world, and in light of this, many companies have adopted sustainable practices. Appealing to Friedman's view of the world, that social responsibility of business emanates squarely from its duty to maximize shareholder value, the Sustainability-Linked Bond (SLB) was created, allowing companies to harvest financial benefits through sustainable action. The instrument emerged in 2019 to serve the purpose of encouraging companies' green transition by introducing a significant financial penalty for not achieving their defined sustainability goals. Being a novel sustainability-centered financial instrument, SLBs have drawn a lot of interest as well as raised a good deal of concern from investors all around the world regarding its purpose and the intentions of issuers. As SLBs are fairly new to the market, limited literature exists exploring this subject. In this dimension, Kölbel and Lambillion (2022) have presented the most comprehensive study on the cost savings, or greenium of SLB's (Kölbel and Lambillion, 2022). In conjunction, a number of studies have investigated the characteristics that drive the extent to which this greenium prevails and the impact on investor reception (Berrada et. Al., 2022; Pohl, Schuler, Schiereck, 2023; Filtman, 2021). Research on the efficacy of SLBs in driving sustainability remains limited, with a paper from the World Bank identifiying loopholes of SLBs (Ul Haq and Doumbia, 2022).

Confronted with limited quantitative data on the topic, we have decided to study SLBs through the prism of the case study method. For the purpose of this study, we have selected H&M's SLB issuance as our research target. For several reasons, the H&M SLB provides a unique opportunity to evaluate the motivations and implications of this novel finance instrument. First, the extent of SLB benefit should, in theory, be correlated with the "brownness" of the firm, as it is within that context that the instrument would offer the greatest transition benefits. H&M utilizes a fast fashion industry business model notorious for its unsustainable practices, including inadequate working conditions on manufacturing sites and promotion of unsustainable consumption practices. This track record has earned it the label of the second most polluting industry in the world, only falling behind oil and gas (Turner, 2021). Second, H&M's bond issue has drawn significant attention and was a highly successful issuance. This suggests the prevalence of strong opinions from the investor perspective behind the motivation for investing in this instrument. Last, as H&M is a large and globally recognized company, risks associated with the sustainable instrument's issuance are amplified, as its

popularity renders it an attractive candidate for advocates to target and expose for unsustainable behavior.

Following review of existing literature and identification of areas in need of further research relevant to the context of the H&M SLB, we have defined the below research questions:

Q1: What are the key drivers of SLB issuance?

Q2: Why do investors invest in SLBs?

Q3: Why was the H&M SLB so successful?

Q4: What sustainability impact has the H&M SLB generated?

Over the year, we have researched the H&M SLB through public sources as well as conducted semi-structured interviews with a diverse set of interviewees presenting different perspectives of the bond issue: representatives from H&M treasury and sustainability strategy, advising banks including lead underwriting bank SEB, second-party opinion provider Sustainalytics, investors in the bond from Handelsbanken, and independent experts from Swedbank and Standard Chartered Bank.

Through this engagement with the relevant stakeholders on the motivations, purpose, and implications of the issuance, we have discovered a multitude of SLB peculiarities. Among these, we have drawn the following key conclusions i) the potential reputational damage from missing sustainability targets represents the most significant risk considered in SLB issuance, overshadowing the financial penalty – an observation previously overlooked in SLB research; ii) in line with that, the primary motivation behind SLB issuance is not cost savings, but rather the communication of a firm's sustainability commitment to investors and the public, which, on the other hand, presents a risk to issuers should the SLB be considered an inadequate sustainability commitment; iii) meanwhile, investors value SLBs as a tool to invest in transition whilst also providing certain diversification benefits, which, conversely, are balanced out by additional efforts dedicated to framework verification, the possibility of a greenium diminishing expected returns, and the risk of scrutiny due to missed KPI targets; iv) the H&M SLB drew exceptional investor attention due to being the company's first ever bond issuance, being one of few SLBs in the region and industry, being one of first SLBs with exposure to circularity (KPI 1), and finally, was perceived as highly credible, in part due to addressing scope 3 emissions (KPI 3) and being underwritten by SEB; v) the SLB has not drastically

altered the way that H&M tackles sustainability, but has been a useful tool in aligning the organization toward sustainability as well as expediting incumbent initiatives.

For future research, we suggest expanding the scope to other industries and geographies, as well as verifying our findings once we observe the first reputational damage from missed SLB targets, including evaluating the true cost of SLBs and the extent and manner in which they may drive corporate sustainability. The following sections will present the overview of past literature, research methodology used in this study, case background, the H&M SLB case, and respective findings and conclusions we have drawn from this research.

Literature review

In this section we present an overview of existing literature on sustainability issues in the apparel industry, the benefits of sustainability practices for companies within the industry, the rise of sustainable finance and sustainability-linked bonds, as well as the impact of sustainability on the cost of capital.

Sustainability in apparel

Criticism

The textiles and apparel (TA) industry has a long history of encountering criticism related to sustainability aspects throughout the supply chain, ranging from textile production, apparel manufacturing and delivery, to marketing and disposal. It represents one of the most polluting industries, accounting for ~5% of total global emissions and substantial usage of non-renewable resources (>108 million tons per year) (Dimitrova, 2020).

Harm associated with manufacturing extends beyond environmental damage, and onto factory employees (Dimitrova, 2020). For many, the TA industry is associated with practices such as sweatshops[1] and child labor, and discrimination, unlivable wages, migrant exploitation, and abuse are common practices in manufacturing sites (Dimitrova, 2020). Tragedies such as Rana Plaza collapse in 2013[2] has put the industry under public scrutiny urging companies to bridge the gap between economic sustainability and social and environmental performance (Dimitrova, 2020).

Fast fashion problem

Presently, sustainability concerns within the TA industry are heavily focused on fast fashion. In the 21st century, fashion became a means for expressing physical and social identities. This resulted in high demand for inexpensive readily available contemporary fashion items and the consequent emergence of fast fashion brands like H&M, Zara, and Shein (Dimitrova, 2020). This sector is driven by impulse buying of rapidly changing styles causing demand volatility and mass consumption (Rafi-Ul-Shan et al., 2018). It has been estimated that each year there are 20 new garments manufactured per person (Nature Climate Change, 2018), with 50% of fast fashion products being "disposed of in under a year" (McKinsey&Co.,

[1] "Sweatshop mostly refers to factory production in which employees are exploited by means of low wages, excessive working hours, under-age employees, or other exploitative practices (Shaw et al, 2006). Brands such as H&M, Nike, Adidas were found to be utilizing sweatshops to manufacture their apparel" (Dimitrova, 2020).
[2] The Rana Plaza collapsed in 2013 in Bangladesh, leading to the deaths of over a thousand people. The site was not built according to the plans submitted to the local authorities (Phau et al., 2015).

2016, cited in Ellen MacArthur Foundation, 2017). Such excessive consumption habits result in high volumes of apparel waste and significant resource depletion.

Despite the negative sustainability impact of fast fashion and common boycotts of such brands by activists, fast fashion remains highly popular as reflected in substantial sales volumes. This may be explained by consumers' unawareness of the unethical production and consumption of fast fashion and its impact on the environment and society (Dimitrova, 2020). Another avenue is that consumers consciously choose fast fashion apparel because the perceived benefits (e.g. low price and novelty) outweigh the above mentioned negative impacts (Park and Kim, 2016).

Benefits to companies

Consumers have now become increasingly concerned with the social and environmental consequences of purchases. Existing literature investigating consumers' demand for sustainable fashion has revealed a willingness to pay a premium for eco-products as long as the quality is satisfactory (Shen et al., 2012; Ellis et al., 2012; Shen et al., 2014). Consequently, sustainability has become a source of competitive advantage for apparel manufacturers and an approach to strengthen their reputation (Yang et al., 2010). Sustainability has thus become a crucial part of brand-building as it can strengthen customer interest and loyalty (Etsy and Winston, 2009; Muntean and Stremtan, 2010). Many fashion brands have been identified to use sustainability as a source of differentiation for their products, for example by adopting sustainable practices (e.g. ISO 14000) in their supply chain (Ho and Choi, 2012). Besides that, sustainability standards act as an insurance mechanism against black-swan events such as scandals and catastrophes on manufacturing sites. Nowadays, sustainability is also used as an investment criterion, therefore, granting certain financial benefits to the firm (see "Impact of Sustainability on Cost of Capital").

As a response to public criticism and consumer demands, apparel companies have started to take action to improve their sustainability performance. Several clothing companies, such as Patagonia, Eileen Fisher, and TOMS have based their business model around sustainable fashion, taking sustainability leadership in the entire fashion industry. Fast fashion companies have also begun to engage in sustainability practices, such as participation in the Better Cotton Initiative and clothing collections for recycling purposes (McKinsey&Co., 2016). However, given the fast fashion business model and reactive approach to sustainability, they are inherently different from the "sustainable fashion brands" mentioned (Dimitrova, 2020). A fast

fashion company using eco-labels on some of its products does not radically transform the process as it still produces excessive product volume in rapid cycles (Dimitrova, 2020).

There are certain challenges that hinder the harvest of sustainability benefits by apparel companies. Consumers are largely influenced by economic and personal considerations (Goworek et al., 2012) or can be deterred by the lack of information and/or social acceptability, while 'sacrifice-oriented' consumers are often skeptical of industry motives (McNeill and Moore, 2015). On the company side, the main barriers include a "lack of commitment from top management, difficulty in aligning short-term and long-term plans, difficulty in changing company practices and policies, the requirement of high investment, unavailability of environment-related standards as well as regulations, scarcity of customers awareness, problems in creating such consciousness, suppliers lacking resources, etc." (Baig et al., 2020). Furthermore, pressure to impose western standards on manufacturing sites in developing markets can have unintended consequences, such as rising unemployment (Kennedy, 2016) or a decline in economic growth (Dolan et al., 2006). Lastly, such changes are challenging as they threaten the whole business model of fast fashion (Ertekin and Atik, 2015).

Sustainability in finance

This section discusses the origins and motivations behind the rise of sustainable financing.

Whilst financial tools addressing social and environmental issues has been around for centuries, the allocation of investment for the purpose of supporting sustainability in conjunction with the intent to generate financial return only began to attain significant traction in the 2000's (Schroders, 2016). A key contributor in this regard was the launch and publication of the UN Principles of Responsible Investment (PRI) in 2006, outlining how enivonmental, social, and governance issues should be a consideration in the financial valuation of firms (Eccles and Viviers, 2011). In parallel, there have been an increasing number of reports and studies providing scientific data credibly linking human action to global warming and outlining its political and economic impacts (UNEP FI, 2017). Following this clearer understanding of the relationship between human activity and climate change, as well as an emphasis on the importance of corporate social and governance issues, a change in investor preferences has materialized. According to a recent JPMorgan survey, 45% of investors now wish to consider social responsibility a key factor in making investment decisions (Nicholls, 2021). To support this shift toward sustainability, a new wave of standards for defining and reporting on sustainability measures as well as the creation of international alliances such as the Net Zero

Asset Managers (NZAM) initiative, has surfaced (Net Zero Asset Managers, 2023). Jointly, we observe that mainstream investment banks and asset managers have developed specialized investment vehicles for the purpose of investing in sustainability focused assets (McInerney and Bunn, 2019).

In this development, several new financial tools and mechanisms have evolved to serve the intents of this financial market, most notably, GSSS bonds – green, social, sustinability, and sustinability-linked bonds (SLBs), as well as transition bonds (OECD, 2022). Out of these, green bonds were the first, with the journey beginning in 2007 when a group of Swedish pension funds seeking to invest in green projects collaborated with the World Bank to issue the first green bond in 2008 (World Bank, 2019). Green bonds contain a "use-of-proceeds" clause stating the financing shall serve the purpose of transferring debt capital to a specified green initiative, such as supporting green energy technologies, water management models, or carbon capture, and in that sense have become a tool to address the impact of climate change, and enabled firms to raise financing for their green projects (Nicholls 2021). On the other hand, green bonds have received criticism for not providing sufficient incentive or drive in making companies behave more sustainably. It has been brought to light for instance, that non-esg compliant, or brown firms, may issue green bonds for financing a segment of their activities, but make no reduction in their use of capital for brown activities. In this sense such firms simply replace regular fianncing from existing green projects, and utilize green bonds as an effective tool to continue their environmentally detrimental operations, whilst simultanously providing a signal that they are committing to a green project, in essence becoming a form of greenwashing (Kölbel and Lambillion, 2022).

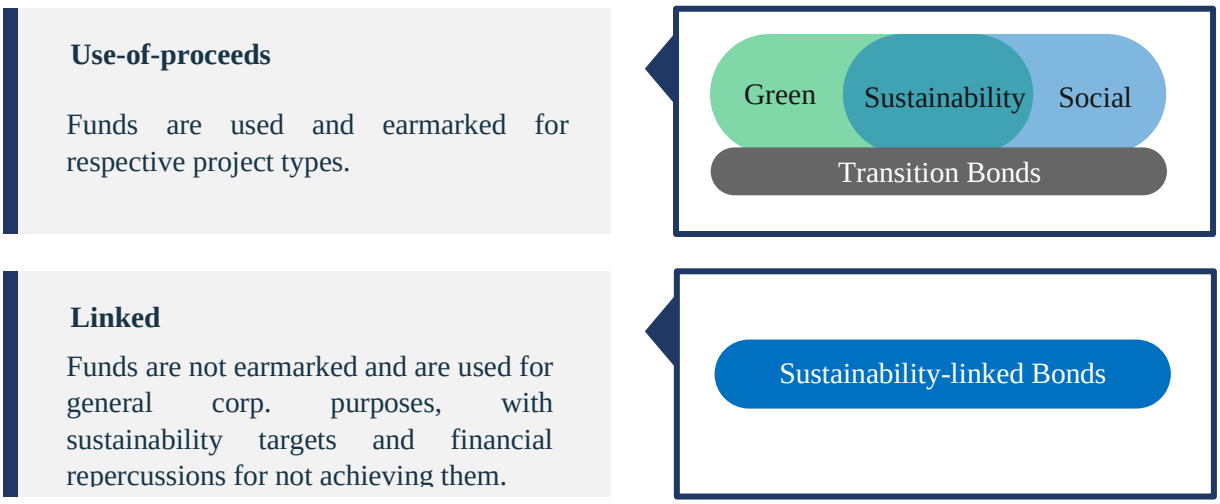


Figure 1: GSSS bond overview.

In response to this pitfall of green bonds, SLBs, named the “next frontier of sustainable finance”, have gained increased popularity (Vulturius, Maltais, Forsbacka, 2022; Fontana, Giraldez, 2022). The first SLB was issued in December 2018, and in contrast to green bonds, do not contain a use-of-proceeds clause but rather outline a set of KPIs (Key Performance Indicators) and SPTs (Sustainability Performance Targets) that apply to the entire organization. Such KPIs vary depending on the industry and organizational operations with the intent that the determined KPI should be material to the sector and operations of the issuer. SPTs, meanwhile, are specific targets set by the issuer and correspond to the afforementioned KPIs. Should a firm fail to reach it’s SPTs by the target date outlined in the SLB framework, a financial penalty will be incurred by the firm in the form of a coupon-step up. This coupon penalty thus creates a financial motivation for managers to achieve the targets, driving managerial incentive compatibility with sustainability (Berrada et al., 2022). Consequently, with financial incentive as well as organization wide implmentation, SLBs may be more effective in driving sustainable practices than green bonds, a potential factor to explain the surge in popularity (see Figure 2).

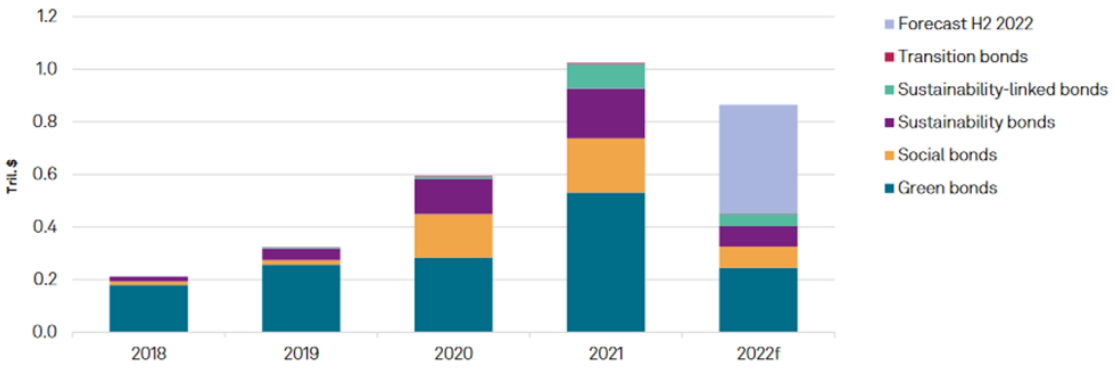


Figure 2: Global Sustainable Bond Issuance. Source: S&P Global, 2022.

As of February 2022, the majority of SLBs listed on Bloomberg exclusively address environmental issues (65%) or a combination of ESG (17%), EG (3%), or ES (1%) issues, whilst less than one percent solely addressing G or S issues (Berrada et al., 2022; Bloomberg, 2022). Moving forward, as the issuance of volume SLBs continues to increase, less-established metrics and sustainabiltiy topics such as biodiversity and social equality may begin to materialise (Vulturius, Maltais, Forsbacka, 2022). To that end, issuers and investors alike will need to establish and define new benchmarks and metrics to come up with new KPIs and SPTs to provide credibility and enhance transperancy in the SLB market.

Impact of sustainability on cost of capital

The implication of the recent shift in investor preferences, is that the incentive for firms to be classified as green has intensified. In equity markets, parallel to the growing demand for green investments, a significant increase in the flow of capital to ESG funds, and in conjunction, to ESG stocks, has elevated the prices of such assets and thus increased shareholoder value (Beck, 2022). Whilst this performance may be partially driven by the notion that firms with high ESG scores provide improved corporate governance and benfits from factors such as improved customer loyalty, certain research also suggests the possibility that the magnified performance of ESG indices is driven by lower costs of capital (Dimson et al., 2015; MSCI, 2020). A leading theory in this realm suggests that investors derive utility from holding green assets, thus, increasing their willingness to pay, and lowering the cost of capital for such firms and inherently lowering the expected return for investors (Pastor et al., 2021).

In the context of green debt instruments, we note that research has also alluded to financial arguments, such as a lower cost of capital, as one of the potential drivers for why firms may commit to such instruments (Flammer, 2021). However, research attempting to uncover the existence of such a pricing phenomenon has returned inconclusive evidence, and varies depending on the type of green debt instrument (Ehlers and Packer, 2017; Karpf and Mandel, 2018; Baker et al., 2022; Zerbib, 2019; Kölbel and Lambillion, 2022; Larcker and Watts, 2020; Cortellini and Panetta, 2021). In the case of green bonds, early research pointed toward such instruments selling for a premium, illustrating that companies do in fact benefit from the lower cost of capital on green bonds, however, more recent research fails to identify such a premium, suggesting that firms may issue green bonds even if it is costly to do so (Larcker and Watts, 2020) (Flammer, 2021).

With respect to SLBs, due to the infancy of the security class, less research has been dedicated to uncovering the existence of a greenium. Inital research, however, seems to indicate that issuing firms may benefit from a lower cost of capital, thus being issued at a “sustainability premium” (Kölbel and Lambillion, 2022). The implication of such a sustainability premium is that issuers have a financial incentive to issue SLBs rather than conventional debt instruments. This raises some concern that issuers may seek to exploit SLBs to acquire cheaper financing, rather than pursuing them for the sake of becoming more sustainable. This concern is further aggravated with emerging evidence of a potential ‘free lunch’ for issuers of SLBs, as the average coupon step-up in the case of a missed target is lower than the sustainability premium. Effectively, this amounts to a form of arbitrage, wherein the safe gain in the shape of a lower

yield outweighs the potential loss generated by the coupon step-up. (Kölbel and Lambillion, 2022). Indeed, a primary concern with contemporary SLBs is that coupon step-ups are not steep enough to incentivize investments in sustainability (Liberatore, 2021). Such concerns calls for further investigation into how invstors percieve such risks, and influences on the price.

Notably, however, the existence of such a premium is not universal across firms, with one third of issuers not benefiting from a lower cost of capital according to a study by Kölbel and Lambillion (2022), and thus committing to a potential penalty should they fail to reach their sustainability targets (Kölbel and Lambillion, 2022). According to literature, there are a number of issuer characteristics that determine the extent of the sustainabily premium (Berrada et. Al., 2022; Pohl, Schuler, Schiereck, 2023; Filtman, 2021). Research suggests that should investors be willing to accept lower yields for green bonds and sustainability-linked instruments, the extent of that relationship will largely depend on whether such instruments align with investors' own sustainability related considerations and if firms are considered principled in their undertaking of achieving sustainability targets (Vulturius, Maltais, Forsbacka, 2022; Maltais and Nykvist, 2020). In this regard, investors are evidently concerned with the greenwashing risk that SLBs carry, indicating that firms that are more transparent in their reporting processes as well as possessing higher ESG scores may offer greater credibility, and thus command a higher price. Research on sustainability-linked loans (SLL), which possess similar characteristics to SLBs, shows that the benefit of lower yields is more pronounced for borrowers with strong environmental profiles and in the company of syndicates with higher environmental standards (Pohl, Schuler, Schiereck, 2023). Moreover, similar findings were observed in the green bonds market where borrowers with high ESG scores received better financing terms (Immel et al., 2021). One study seeking to develop a mispricing measure for SLBs in the secondary market identified a non linear relationship between the mispricing measure and the ESG ratings of issuers, implying that the probability for a firm to reach its SPTs depends on the firm's ESG score (Berrada et al., 2022). These findings support the notion that investors are willing to accept lower yields if the instruments offer alignment of sustainability strategies, and if firms are percieved to be credible in their pursuit of SPTs.

An inherent shortcoming of SLBs in relation to transparency is that SLB financing is not directly associated with a contribution to improvements in an issuers sustainability strategy due to the lack of a use-of-proceeds clause. Moving forward, such concerns may lead to investors requesting a more transparent insight into how such funds are allocated, and indeed into the overall sustainability strategy of companies.

A paper published by the World Bank examining the efficacy of SLBs to drive sustainabilty other than unabitous targets, identified two structural loopoholes of SLBs in this regard, notably whether bonds are callable, and the setting of late target dates (Ul Haq and Doumbia, 2022). In the case of a callable bond, the issuer could call the bond prior to reaching the coupon step up date should it not be on track to achieve its target, potentially calling into question the credibility of the SLB. In a study by Kölbel and Lambillion (2022), two thirds of the SLB market included such a call provision, however, research on the price impact of such a provision remains limited in the case of SLBs. The World Bank study further identified that issuers of SLBs with high CO2 emissions, and thus lower ESG scores, are more likely to expolit such structural loopholes (Ul Haq and Doumbia, 2022).

Another bond characteristic that may impact the greenium pertains to investment grade vs. high-yield bonds. As pointed out by Filtman (2021), recent sustainability-linked debt issuance by high-yield rated firms such as Verallia Société Anonyme, Lonza Specialty Ingredients, and Public Power Corp. SA, suggests that issuers of performance based bonds such as SLBs have enjoyed pricing benefits relative to conventional debt instruments. Further, such bonds have also experienced a remarkable encouraged reception from investors, typically raising a book 30-40% larger than brown bonds (Flitman, 2021).

Given the novelty of the SLB market, and the sparsity of research, the extent of the greenium for this instrument remains a debated topic. Should a greenium be prevalent, the risk of greenwashing remains particuarly elevated, with firms acquiring cheaper financing terms and setting unambitious targets whilst unburdened by paltry coupon-step ups. In contast, should the firm not stand to benefit from a greenium, SLBs are potentially a costly signalling tool, mainly serving to demonstrate a firm’s concientious commitment to sustainability.

Methodology

This section describes the methodology chosen to answer the research question, as well as the data collection and research quality control processes. We have selected H&M for this case study given its position as a leader within fast fashion, qualifying it as a favorable candidate to examine sustainable financial instruments in the context of a non-traditionally green company.

The case study method

We have chosen to perform a single case study to gain insights about the primary motivations, and specific choices in regard to the issuance of sustainability-linked bonds. This method is connected to empirical evidence derived from a complex and dynamic real-world event. Miller (1977) advocated that by utlilizing a more practical research approach, cases offer a more accurate representation of reality than a traditional “model of the firm" (Miller, 1977). Siggelkow (2007) supports this view, arguing that data collected following a case format can get much closer to theoretical constructs, and offer a more convincing insight into decisive forces and relationships than empirical research can (Siggelkow, 2007).

The limited prior research on SLBs and the scarcity of such instrument listings also play an important role in our choice of method. At the moment of this study, the sample size of issued SLBs remains small (90 as of the beginning of 2022), and the time elapsed since the first SLB issuance (September 2019) is very short. Conducting a meaningful quantitative analysis with robust results thus poses a significant challenge. Meanwhile, the case study approach makes it favorable for theory-building, and thus exploring new research areas (Eisenhardt, 1989). A single case study of an individual event additionally provides the appropriate context for an in-depth analysis of complex relationships from intertwined perspectives. Given the novelty of the instrument and the limited prior research and data, we find the case study method to be the most appropriate in bringing credible insights.

On the other hand, case studies can be too specific and are subject to individual judgement. The critics of the method point out the possibility of a lack of statistical generalization and thus question the credibility of the results (Yin, 2013). Nevertheless, critics still acknowledge that the method is best for understanding interactions between a phenomenon and its environmental context (Dubois and Gadde, 2002). It is suitable for “how” and “why” questions exploring contemporary non-behavioral events (Yin, 2013). As our research question fulfills those prerequisites, the case study seems highly appropriate. Although some of our conclusions may

only be valid for H&M, we believe that the insights are applicable and relevant for other SLB and / or other green instrument issuances, in particular within the fast fashion industry.

Data collection

The initial step in our research process was the collection of publicly available information directly related to the case, as well as relevant background information, including H&M's sustainability profile and financing history. This information primarily entailed articles and reports, interviews with people involved in the process and independent experts. Collecting and analyzing this background information helped us identify the information gaps that needed to be explored further during the interviews, our primary data source.

We conducted a series of 8 interviews, beginning with individuals that were either directly or indirectly involved in the H&M SLB issuance process. The interviewees were selected to represent different parties and perspectives on the case: the issuer, the underwriter, the Second Party Opinion (SPO) provider and the investor. This provided us with a comprehensive panorama and allowed us to understand the motivations and rationale behind the actions of different stakeholders in the case, as well as their interactions. To ensure objectivity, we have also interviewed individuals that were not directly involved in the case but who have significant insights into the green finance sphere. For each of our interviewees, we prepared a tailored set of questions specific to their role in the case and expertise on green financing instruments. The complete set of interviewees is presented in the reference section.

The interviews were conducted in a semi-structured format, where we prepared a set of topics and designed an overarching structure. Within each topic, a series of open-ended questions was asked to guide the conversation while allowing for follow-up questions. We tried to avoid sending questions to the interviewees beforehand so that they were not primed to only answer the given questions. If the interviewee requested the questions in advance, only general discussion topics and structure were provided, desisting from going deep into specifics. The goal was to achieve an organic and smooth conversation while also addressing the key topics.

The interviews took place from December 2022 through April 2023 and lasted between 30 and 60 minutes. All interviews were conducted in virtual settings to increase flexibility and encourage participation by interviewees. The online format also enabled us to record and transcribe all the interviews, giving us the opportunity to revisit the material and find relevant quotes. At the request of the interviewees, the final material was sent to them for verification to ensure that we correctly interpreted their responses. Furthermore, some of the interviewees

were anonymized at their request, therefore, only the citation of their role appears throughout the case. This encouraged interviewees to speak more openly and honestly.

To further improve the study's validity and reliability, the interview data was complemented with information from other sources. Additional information on the case was collected primarily from press releases and company publications. However, the public information was limited, and primarily concerned the price development during the offering. As a result, our thesis combines the evidence from our interviews with quantitative and qualitative public source data, presenting the case from both angles.

Research quality

Yin (2013) emphasizes the need to evaluate qualitative research by looking into validity and reliability. The former is further segmented into construct, internal, and external. Altogether, the quality verification process consists of four logical tests.

The first of these logical tests is construct validity. The research paper is considered to possess construct validity if it has successfully identified "the correct operational measures for the concepts being studied". Construct validity is particularly challenging to achieve with the case study research method as the data collection process can be influenced by researchers' subjective judgements (Yin 2013). To increase the construct validity, we collected multiple sources of evidence by a) having a diverse set of interviewees, and b) complementing with public data from multiple sources. We have also shared the quotes appearing in the final draft respectively to the interviewees for their revision.

Internal validity encompasses research that captures the reality of the phenomenon by properly establishing casual relationships. The problem with internal validity arises because the event cannot be directly observed. The results of the study are determined by the researchers' interpretation of the event, which is in turn contingent on the subjective view of the interviewee. For instance, the involved parties may not be fully transparent regarding the negative aspects of the case or choose to withhold sensitive information. As this paper will be publicly available, we explicitly asked the interviewees to not share any confidential information. Although there's no way to ensure complete transparency and honesty from the interviewees, we sought to overcome this limitation by interviewing independent experts and taking anonymization measures when asked by the interviewees.

Findings from research possessing *external validity* can be generalized and applied outside of the direct context of the case. The problem with generalization has been brought up as one

of the main concerns when performing a case study (Dubois and Gadde, 2002). There are two different types of generalization, analytical and statistical. Statistical generalization relies on the large sample of observations that supports resilient statistical significance. There are different guidelines on what a sufficient sample size should be, but all of them go beyond what is realistic for a single case study. Therefore, our method primarily relies on analytical generalization where the researcher is responsible for interpreting the results and construing them into a broader theory. One approach to improve external validity suggests formulating research questions such as "why" or "how" to reduce the likelihood of seeking generalizations (Yin, 2013). It has also been suggested to evaluate how comparable the case is to similar events within the same category (Merriam, 1994). In the discussion section of the paper, we explore how the findings from our case can be applied to other SLB issuances by companies in fashion or other traditionally polluting industries. Furthermore, given H&M's substantial size and leading position in the TA industry, it offers an alluring representation to examine sustainable financial instruments in the context of a brown company.

Lastly, research can be considered *reliable* if it can be repeated yielding consistent results. This is only applicable if another researcher studies the exact same case. In general, reliability is considered a less relevant test for qualitative research (Stenbacka, 2001). Nevertheless, we have contributed to the reliability of the study by thoroughly documenting the whole research process, filing interview questions, and transcribing the interview recordings.

After considering the four logical tests, we conclude that our research reliability is sufficient and thus enables us to make valid and reliable conclusions.

Case background

Sustainability linked financing background

Sustainability linked financing in fashion

In November 2019, Prada became the first fashion brand to sign a sustainability-linked loan. The Sustainability Term Loan in amount of €50 million was signed with Crédit Agricole Group and has a maturity of 5 years. The interest rate is linked to the number of stores assigned a LEED Gold or Platinum Certification; employee training on sustainability (in hours) and the use of Prada Re-Nylon (regenerated nylon) for manufacturing (Prada Group, 2019). Prada further added to its ESG loan portfolio in January 2020, when the company signed another 5-year sustainability-linked loan in amount of €75 million with the Japanese bank Mizuho. The second loan was linked to the same KPIs as the previous. Prada made yet another addition in February 2021 with a 5-year €90 million sustainability-linked loan with UniCredit. This loan was linked to new KPIs related to 1) regeneration and reconversion of production waste; and 2) increasing the share of self-produced energy (Prada Group, 2021).

The first ever green bond in the fashion industry was issued in February 2020, by the VF Corporation, one of the world's largest apparel companies and the parent of brands such as Timberland and Vans. Having raised €500 million, VF Corporation has allocated €493 million of the net proceeds into the company's sustainability projects worldwide. The projects were aligned with the UN SDGs and fell into one of three categories: Sustainable Products & Materials; Sustainable Operations & Supply Chain; and Natural Carbon Sinks. As of 2021, the projects' positive impact was derived from 2 million trees planted, procurement of sustainable materials, avoiding ~16,000 metric tons of CO2e annually, and water conservation initiatives saving more than 970 million liters annually (VF Corporation, 2021).

The SLB market in the fashion industry was pioneered by Chanel in September 2020. The French luxury retailer raised two SLBs, one long-term 10-year €300 million and one short-term 5-year €300 million bond, raising a total of €600 million in sustainability-linked funds. The short-term and long-term bonds were priced at yields of 0.548% and 1.059%, and oversubscribed 2 and 2.5 times respectively (Reuters, 2020). The bond was linked to KPIs supporting Chanel's carbon reduction with the targets to 1) reduce scope 1 and 2 emissions by 50% by 2030; 2) reduce scope 3 emissions by 10% by 2030; and 3) shift to 100% renewable electricity by 2025 (BNP Paribas, 2020). In 2021, Chanel reported missing an interim target for the renewable energy KPI, where it achieved 92% rather than the required 97%.

Furthermore, the company was offtrack on scope 3 emissions, reporting a 75% increase relative to the bond issuance year. Although the company claims that this result is driven by a post-pandemic rebound, the 2021 figures are notably also higher than the baseline year of 2018 (Bloomberg, 2021).

Around the same period, in September 2020, Burberry issued the first-in-industry sustainability bond of £300 million to finance sustainability projects such as LEED and BREEAM certified property refurbishment, as well as sustainable sourcing of resources and packaging. Continuing with the sustainability related financing strategy, in January 2022, Burberry committed to a £300 million sustainability-linked loan to refinance its RCF. The payments for this loan are linked to scope 3 emission reductions by 46% by 2030 as part of its ambition of becoming net zero by 2040 (Burberry, 2022).

In 2022, European retailer Mango extended the maturity of its existing syndicated €236 million loan, but also linked it to the ESG criteria (something the company has never done before). The interest rate on the loan is now conditional on Mango's achievement of 100% use of sustainable cotton, recycled polyester, and cellulose fibers of controlled origin by 2025, as well as a 10% reduction in scope 1 and 2 emissions. Under this transaction, the company has also negotiated a €200 million credit facility from the banks in the syndicate (Mango, 2022).

Other deals in the industry include luxury Italian players like Salvatore Ferragamo and Moncler. Salvatore Ferragamo has received a sustainability-linked credit facility worth €250 million, consisting of a term loan credit line with a five-year maturity for 2025 and a revolving credit line with a maturity in 2024 (€125 million each) (Salvatore Ferragamo, 2020). Moncler, in turn, has secured a €400 million revolving credit facility with maturity in 2023 linked to the achievement of the company's environmental objectives (Moncler, 2020).

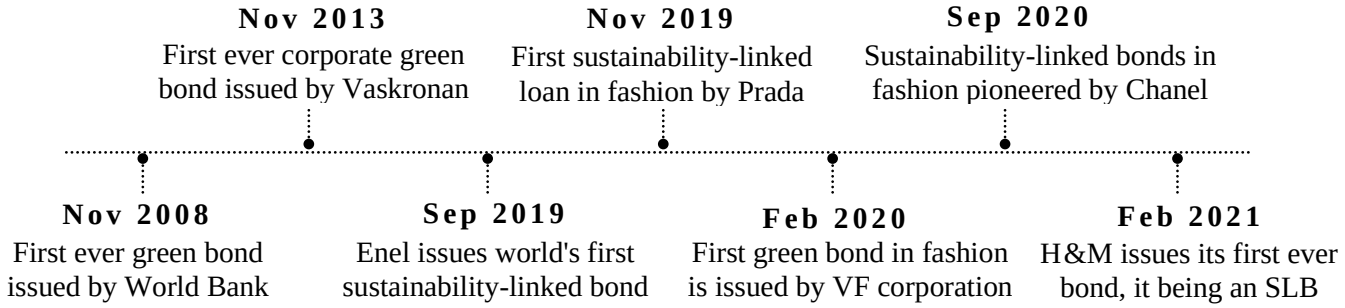


Figure 3: Timeline of green and sustainability-linked financing

Sustainability linked financing in Sweden / Nordics

Sweden is widely regarded as a front-runner in relation to ESG initiatives and innovation. The first ever corporate green bond was issued in 2013 by Swedish real estate company Vasakronan with Swedish bank SEB as the primary underwriter. During the same period, the Swedish city of Gothenburg issued the world's first municipal green bond.

Despite being a front-runner in the realm of green bonds, however, Sweden lags in the more novel market of social and sustainability-related bonds (SSFC, 2020). Beyond the H&M SLB, five other SLBs have been issued in Sweden to date, including issuances by Loomis AB, Gränges, Elekta AB, and Uppsala Kommun. Notably, the H&M's bond was the first SLB issued in Sweden. This novelty extended over the broader Nordic region, since the only prior SLB issued in the Nordics was by Norwegian company Odfjell in January 2021, less than a month before H&M's bond (ICMA, n.a.). Swedish investors are highly attracted to sustainability related bonds and are increasingly looking for theme variation. However, green bonds, that dominate the sustainable debt market in Sweden, were commonly issued by either local municipalities for infrastructure projects or by real estate firms, thus resulting in sectoral concentration. The lack of domestic investment opportunities in sustainability-related instruments often requires Swedish investors to seek such investments abroad (SSFC, 2020). Therefore, a new and novel instrument such as the SLB, especially a corporate issuance, presented a unique opportunity for local investment managers. It is also notable that the novelty of the instrument may pose a challenge to the market, with Swedish bankers having been found to lack expertise on uncertain cash flow evaluation (SSFC, 2020), an inherent part of SLBs.

Country	Company	Issue Date	Issue size
Sweden	H&M	February 2021	EUR 500 m
	Loomis AB	November 2021	SEK 1,200 m
		June 2022	SEK 300 m
	Gränges	September 2021	SEK 600 m
	Elekta AB	December 2021	SEK 1,500 m
	Uppsala Kommun	April 2023	SEK 600 m
Norway	Odfjell SE	January 2021	NOK 850 m
Denmark	Vestas	March 2022	EUR 1,000 m
	TDC Net	February 2023	EUR 500 m
Finland	Capman Oyj	April 2022	EUR 40 m
	Huhtamaki Oyj	June 2022	EUR 500 m

Table 1: List of Sustainability-Linked Bonds in the Nordic region as of January 2023. Source: ICMA.

H&M background

Founded by Erling Persson in 1947, H&M's journey began with a single womenswear store in Västerås, Sweden called Hennes, Swedish for "Hers". Since then, H&M has evolved into a global fast fashion company with a product portfolio including apparel, accessories, cosmetics, and home décor, offered under its brands H&M, COS, Monki, ARKET, Weekday, Afound, SELLPY, and & Other Stories. Products are sold through its own stores, franchises, and e-commerce channels worldwide. Despite being listed on the Stockholm Stock Exchange since 1974, H&M largely remains a family company, with the founding family retaining over 80% of voting rights, and 60% of capital.

Historically, H&M has pursued a conservative leverage policy. For many years, H&M has refrained from assuming external debt in favor of its own capital funds, to provide freedom of action in expansion and investment decisions (H&M Annual Report, 2021).

SEK m	2021	2020	2019	2018	2017	2016	2015	2014	2013
Long-term	9,178	8,433	10,413	10,170	0	0	0	0	0
Total	9,614	16,332	17,317	19,323	9,745	2,068	0	0	0

Table 2: H&M's liabilities to credit institutions as of 2021. Source: H&M annual and Sustainability report 2021.

Whilst H&M now regularly raises external debt, it advocates a conservative leverage ratio, aiming for ND/EBITDA ratio of below 1x. In the past years, this ratio hovered around 0x and in 2021 was 1.1x. The company centrally raises funds through the parent company in Sweden (H&M Annual Report, 2021).

Debt type	Commercial papers	Bonds (EMTN)	Loans from credit institutions	Unused credit facilities
Total SEK m	950	5,459	4,369	17,469

Table 3: External debt composition of H&M as of November 2020. Source: H&M annual and Sustainability report 2021.

Following more than 70 years after the company's establishment, H&M received its first credit rating in preparation for its first-ever bond issuance (H&M Annual Report, 2021).

Agency	Long-Term Rating	Short-Term Rating	Outlook
S&P	BBB	A-2	Stable

Table 4: Summary of H&M's credit rating as of 2023. Source: H&M website.

H&M and sustainability

As with many of its peers in the apparel, and especially fast fashion, sector, H&M has endured controversies around sustainability – ranging from inadequate working conditions to environmentally harmful practices.

One of the biggest problems in fashion regards worker exploitation in emerging markets. Like many companies in the sector, H&M sources most of its cloth from developing countries, while earning a majority of sales in developed ones (Shen, 2014). Over the years, H&M has appeared in various harsh negative news reports. Examples include human rights violation investigations such as a fire in a Bangladeshi factory that killed 21 workers (Independent, 2010); working with factories in Myanmar that employ 14-year-old children (The Guardian, 2016); reports from the Global Labour Justice on collected testimonials from 540 workers at H&M and GAP factories on sexual and physical abuse caused by fast fashion tight deadline pressure (The Guardian, 2018). On most occasions, H&M was not the only western retailer working with problematic factories at that time, and it always responded with actions to those accusations. H&M argues that garment workers' wages are an industry-wide issue and are not correlated with clothing prices (OECD, 2018). On the other hand, the fast fashion business model requires low production costs to be profitable at a reasonable markup. Such companies may thus be incentivized to keep industry standards low, with depressed wages and child labor.

In the wake of the sustainability movement, companies are now expected to prove that they're combating, or at the minimum, not magnifying such issues in the supply chain. Addressing this concern, H&M states that they reconcile low clothing prices with good working conditions through scale economies, building long-term relationships, avoiding middlemen, forecasting long-term, and optimizing logistics (OECD, 2018). H&M has also implemented sustainable supply chain management procedures: H&M collaborates with over 800 suppliers globally, monitoring their compliance through the Sustainability Impact Partnership Program. Around 50% of H&M's factories maintain democratically elected representatives, while all partners must sign and comply with H&M's Sustainability Commitment and Code of Ethics (OECD, 2018). H&M also has dedicated teams in production offices that have daily contact and monitor the suppliers.

However, H&M acknowledges that the most substantial sustainability issues and human rights violations appear further upstream, where H&M's direct impact is limited. Such issues require a different approach, such as partnerships, to collectively address the problem. Galvan

et al. (2021) summarized the sustainability partnerships of various companies in the fashion sector. Examples include H&M's donation to support UNHCR in response of the European migration crisis; H&M and CARE strengthening women in developing countries with training and seed capital; the Sustainable Apparel Coalition (SAC) with H&M, Inditex and Patagonia; and the Zero Discharge of Hazardous Chemicals Foundation leading the elimination of hazardous chemicals. H&M partnerships are listed in Appendix 1.

In recent years, more attention has been dedicated to the negative environmental impact of fast fashion. However, H&M seeks to mitigate this negative impact by utilizing recycled materials, shipping optimization, waste reduction, and collection and up-cycling of used clothing (Shen, 2014). Other notable projects include the launch of a denim line consuming less water during manufacture, and a collection made with sustainable coloring techniques such as biotechnology, plant-based pigments, and closed-loop systems. H&M also unveiled a new circular design tool, participated in a renewable energy project in Vietnam, contributed to the creation of the blockchain-based rental service, and launched second-hand platforms in some of its markets (JustStyle, 2022).

Today, H&M's operations are governed by a comprehensive list of policies addressing its own operations, as well as those of partners and materials used (see Appendix 2 for a list of policies). As such, H&M seems to have addressed or is in the process of addressing all sustainability related issues in the company and industry. With H&M's unsustainable fast fashion business model in combination with significant efforts in respective risk management, H&M has received mixed ESG ratings. For instance, H&M has been assigned low ESG risk by Sustainalytics - 15.7 and is one of the leaders in the Fashion Transparency Index – 61% - 70%. Nevertheless, it scores highly on controversy level (3 vs 1.9 peer average) with Social Supply Chain incidents affecting the company most strongly (Sustainalytics, n.a.).

Sustainability strategy and governance

Sustainability issues are considered critical, with the head of the sustainability department positioned among high-level executives, reporting directly to the company CEO. In the words of H&M treasury representative we interview: "it goes all the way up to the board. Our CEO and CFO are very engaged and up to speed with what's being done. We also have our head of sustainability joining board meetings to give updates on the sustainability agenda and the progress, so the board is also updated on this. It [sustainability] is really anchored throughout

the company" (H&M Treasury, 2023). As of 2021, 244 employees in the organization identified sustainability as their core responsibility.

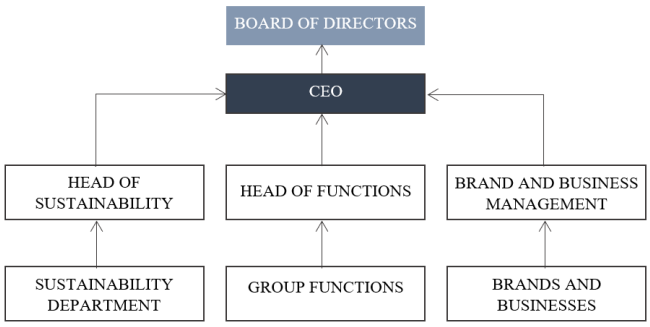


Figure 4: H&M Group's high level executive organizational structure. Source: H&M Annual and Sustainability report 2021

H&M reports on sustainability metrics in an integrated manner in their annual report, as well as through separate sustainability disclosure documents. A green investment team was established with the "purpose to create an overview of what is done in different parts of the company, to get a good view of the budget, and to centralize it even more" (H&M Treasury, 2023). The team's budget is focused on emission reduction while their "return is measured in emission reduction and not financial metrics" (H&M Treasury, 2023), supporting alignment of interest and incentives for the company to pursue environmental opportunities. The key focus areas reported by H&M are 1) Leading the Change (through scale innovation, promoting transparency, and engaging in partnerships for industry-wise progress); 2) Becoming a Circular and Climate Positive Business (by operating within planetary boundaries, having net positive impact on biodiversity, and implementing circular ecosystems); and 3) Fair and Equal (jobs, workplaces, and communities).

H&M seeks to be a sustainability leader in the fashion industry. This leadership is pursued through innovation, transparency, and stakeholder engagement. To facilitate innovation in new materials, recycling technologies, and circular business models, H&M invests in its own operations as well as supports adjacent businesses and partners through entities such as their Circular Innovation Lab, H&M CO:LAB investment arm, B2B service Treadler, and various events including H&M Foundation's Global Change Awards and Billion Dollar Collection campaign. The transparency efforts of H&M are aimed at empowering informed choices and are enabled through continuous iteration to improve data systems and data management (H&M annual report, 2021). H&M was among the first in the industry to launch the Sustainable Apparel Coalition's (SAC) Higg Index Sustainability Profile, which, incidentally, led to backlash (see Criticism of H&M's approach to sustainability). Stakeholder engagement is done

through webinars and calls, partnership meetings, surveys and consultations, training programmes, and stakeholder newsletters. Furthermore, H&M maintains active public affairs work which, in 2021, included contributions to EU consultations on various sustainability topics: advocacy of social protection in production markets, and support of clean energy reforms in Bangladesh, Cambodia, and Indonesia (H&M annual report, 2021).

In relation to those ambitions, H&M has made commitments for 2030 in climate, materials, and packaging (see Appendix 3 for H&M sustainability targets). Within climate, H&M aims to reduce emissions of all scopes by 56% relative to the 2019 baseline, as well as utilize 100% renewable electricity in its own operations. For materials and packaging, H&M committed to only using recycled or sustainably sourced materials by 2030 (H&M annual report, 2021).

Criticism of H&M's approach to sustainability

Negative media coverage of H&M has often been directed to high pollution and greenwashing accusations. Most recently, H&M has been highlighted as one of the most polluting fast fashion companies in the world (Earth.org, 2022). In 2022, H&M had to remove its "Conscious Choice" clothing line from online shops globally due to Dutch authorities labelling the sustainability agenda of the line as unclear. Following that, a class action lawsuit was filed against H&M for alleged greenwashing, arguing that since the products are made primarily of polyester or recycled plastics, the line promotes the purchase of single-use plastics, and is thus a misrepresentation of environmentally friendly products (Reinhold, 2022).

During the summer of 2022, H&M was accused of greenwashing in association with its scorecard system that communicated the environmental soundness of each garment. The scorecards were found to present inaccurate information about the sustainability of the product. Some of the product information had the data mixed up, e.g. showing products that used 30 percent more water as using 30 percent less water. In response to the consumer backlash, H&M removed the scorecards, while Sustainable Apparel Coalition paused the use of the consumer-facing transparency scorecards altogether (Forbes, 2022).

H&M has also been criticized for its "take back" scheme, where the company encouraged consumers to bring old garments to H&M stores for recycling purposes. With H&M rewarding participating individuals with vouchers, the program was perceived by critics as a promotion of excessive consumption (Renewable matter, 2022). Items collected through this program often get shipped abroad where they simply end up at a landfill, often in Africa or Central and South America (CBC, 2018). Another criticized project is the garment-to-garment recycling

system ‘Looop’, that for a fee of 150 SEK disassembles and re-assembles old garments into new ones. However, with the process not compatible with synthetic polyester blended garments, the major material used by fast fashion brands, it was undermined by critics as a “greenwashing gimmick” (Renewable matter, 2022).

Generally, apparel companies get criticized by western consumers for not imposing western ethics standards in developing countries where those companies operate. However, the opposite can happen as well, with companies facing backlash for their “Western” stance. A notable case from 2021 encompassed backlash from Chinese state media and e-commerce platforms over H&M’s statement of concern regarding forced labor in Xinjiang. After Chinese governmental activists accused H&M of boycotting Xinjiang cotton, H&M was removed from China’s largest e-commerce platforms and mapping apps. The situation further escalated to the state level with both Western and Chinese authorities imposing sanctions (Financial Times, 2021). Presently, China represents not only an important manufacturing location, but also a major source of revenue. Global companies such as H&M must thus carefully tread between two fences; to satisfy western consumers and manage the relationship with the Chinese government.

Covid-19 pandemic

In 2020, the world was rattled by the Covid-19 pandemic. Before the wide adoption of the vaccine, many regions globally deployed strict quarantine measures, severely harming many industries, including TA. The impact following closed physical shops, shipping disruptions, cancelled events, and remote work have decreased all forms of fashion consumption (Vladimirova, 2022). During 2020, H&M had major layoffs, cutting 16,000 full-time employees due to the large-scale store network reduction (Bloomberg L.P). H&M net sales dropped by 20% in 2020 compared to 2019, 58 physical stores were closed during that year (and 217 more during the following), and profit after tax dropped by more than 80% in 2020 (H&M annual report, 2020 & 2021). The years under the pandemic thus represented a challenging period for the company, but in contrast, also marked a new milestone in their sustainability commitment with the issuance of the SLB.

Case: H&M SLB

The following section will present the details behind H&M's SLB issuance. The sections are organized in chronological order, beginning with H&M's motivation for issuing the bond, followed by calibrating the framework, acquiring the second party opinion, and making the bond placement. Subsequently, it will describe the investor's buying decision, and ensuing performance of the bond and KPIs.

Motivation & debt instrument selection

In February 2021, shortly after receiving its BBB credit rating, H&M issued its first-ever bond. Following a historically conservative capital structure reliant on private bank loans, H&M was seeking to diversify funding sources by becoming active in the debt capital market. Whilst the period presented a challenge with the Covid-19 pandemic adversely impacting global fashion sales, the timing for raising debt was ideal, with the Riksbank policy rate close to an all-time low at 0% (Sveriges Riksbank; Vladimirova, 2022). Instead of pursuing a conventional debt instrument, however, H&M decided to dive into the new SLB market.

Face Value	EUR 500 m (USD 611.25 m)	Offer Date	February 25, 2021
Coupon	0.25% (no-grow)	Maturity	August 25, 2029 (8.5 years)
Rating	BBB	Call date	May 25, 2029 (at 100)

Figure 5: Overview of H&M SLB key characteristics

By 2021, H&M viewed themselves as industry leaders in sustainability and "years ahead of competitors in regard to openly sharing our [H&M's] supplier lists and providing transparency" (Kim Hellström, 2023). On this premise, sustainability-related financing presented H&M with an attractive opportunity to communicate their already on-going sustainability efforts: "for us it was very natural to somehow link our financing strategy with our sustainability agenda, and because there was a trend in the market and big interest among investors for investing in green. Also, it's a way for us to communicate to investors on our work in this space" (H&M Treasury, 2023). Internally, the pivot to focus increased attention on the investor perspective was rather recent for H&M due to their unique ownership structure which resembles that of a family company. With the founding family members controlling over 80% of voting rights, less effort had previously been dedicated to appeasing external investors. Kim Hellström, climate strategy lead at H&M, emphasized that, "the purpose has never been to look

good in front of our investors, we want to look good in front of our customers" (Kim Hellström, 2023). With this new shift toward the investor angle, the SLB functioned as a "shortcut" to getting investors' attention, and in parallel, communicating H&M's sustainability strategy (Kim Hellström, 2023).

Initially, H&M assumed that they would select a green bond as their mechanism for bridging financing and sustainability. Given the use-of-proceeds clause for green bonds, however, "we [H&M] needed a large, predefined project to link a green bond to" (Kim Hellström, 2023). This process commenced with H&M creating several new internal functions, mapping out projects within their production operations that could be suitable candidates for the green bond. The largest of these functions was Green Investment, for which the sole purpose is to decarbonize H&M's value chain. In this pursuit, however, they quickly discovered that there was no individual project or plan, but rather "hundreds and hundreds of comparably small initiatives" to target (Kim Hellström, 2023). A green bond was simply not suitable for H&M's needs: "When it comes to green bonds, the use-of-proceeds is normally done where you have large CapEx investments. But for achieving our goals at this stage, it is not so much large CapEx investments. It's a lot of different types of investments that we need to do: it's cost of goods sold to source recycled materials or sustainability sourced materials, it's to support suppliers to reduce their emissions through many different forms, e.g. investing in new techniques, new materials and so on" (H&M Treasury, 2023). There was also a need for adaptability, H&M could not predict which technologies they were going to implement, or which suppliers they were going to work with to that end, thus ruling a single, rigid project required for a green bond unfeasible.

In an effort to overcome these structural challenges, H&M's advising bank, SEB, presented an alternative solution – the sustainability-linked bond – says Mats Olausson, SEB senior advisor in sustainable products who worked on underwriting the H&M SLB. With SEB being one of the 13 banks that launched the Green Bond Principles, they had extensive experience of the alternatives for integrating sustainability into funding. Following a dialogue with SEB on the different options in the sustainable debt space, and SEB's views on the pros and cons of the different instruments, H&M concluded that it was the best way to finance their investments (Mats Olausson, 2023). "For us [H&M], it's many different types of investments - a lot of OpEx, COGS, some CapEx. And there we found that the sustainability linked gives us more flexibility in investing in all these different parts that we need to invest in. It also puts focus on what's the most important, which is achieving our goals and reducing emissions in our value chain. That's what convinced us to do linked" (H&M Treasury, 2023). With

challenges related to data collection and availability, the SLB also offered the significant advantage of enabling H&M to "work with percentages and goals rather than absolute numbers" (Kim Hellström, 2023).

From SEB's perspective, as a member of the executive committee of the Green and Sustainability-linked Bond Principles, they have an "expectation to contribute to the continuous shaping and development of the sustainable finance market" (Mats Olausson, 2023). In that sense, underwriting an SLB for H&M provided an attractive opportunity to be the first movers in the SLB market for a company with H&M's profile (Alexis Cousins, 2023). Reflecting on their experience in this space, SEB "typically adopts a long-term perspective when it comes to issuing such instruments, using them as a vehicle to deepen the relationship with existing and hopefully new investors, representing the most important added value for the issuer" (Mats Olausson, 2023). With this presenting the first time that H&M would become active on the capital market, the SLB "offered a magnificent opportunity to engage H&M's investors, and in this case a completely new investor base in sustainable fixed income" (Mats Olausson, 2023). The SLB thus created favorable circumstances for SEB to build a bridge between the investors and H&M and strengthen the trust between the parties, rooted in the envelope of sustainability: "Altogether we hope to sharpen the dialogue around sustainability in the context of what companies are doing, and help investors understand the big challenges, and what potential solutions look like. A lot of times, enacting on those solutions will require capital" (Mats Olausson, 2023).

However, critics of the issuance have provided a more skeptical interpretation of H&M's motives for issuing the SLB. As a fast fashion company, H&M is associated with wasteful consumption and negative environmental and social impact. The fact that H&M decided to issue a bond instead of signing another loan might indicate a concentrated effort to change the public perception of the company. Unlike a sustainability-linked loan, a bond is a much more public venture, and thus more effective in shedding the polluter image (Turner, 2021). Investors are aware of this perspective and agree that SLBs are useful from the "marketing point of view" (Elin Larsson, 2023) as the company gets to "create the documents and the dialogue with investors to be able to convey their sustainability strategy" (Elin Larsson, 2023). Nonetheless, they still see non-financial value embedded in the instrument as it creates "an incentive to really try to fulfill sustainability targets" (Elin Larsson, 2023) which the company has committed to.

Despite limited research on the prevalence of a "sustainability premium" for SLBs, initial research indicates that SLBs do provide such a benefit to the issuer (Kölbel and Lambillion, 2022). Indeed, Mats Olausson noted that "some [issuing parties] have a tendency to focus on

making the immediate funding cost or exercise more efficient" in the issuance of sustainability related debt instruments (Mats Olausson, 2023). A sustainable finance DCM specialist at one of the advising banks, hereafter referred to as "Advising bank", further noted that it is "in the mandate of the issuers treasury department to secure cheap financing", and that there is "ample proof" of issuers utilizing green finance instruments to seek lower financing costs (Advising bank, 2023). This prompts the question, did the potentially lower yield play a role in the motivation for the issuance of the H&M SLB? In Mats Olausson's view, the greenium was not the primary stimulus, instead highlighting that, "even though it is nice, after having put a lot of work into developing a solid framework, getting a second party opinion, engaging your organization, etc, if you can get a good funding cost, the long-term relationship with investors is in our [SEB] view the most important added value for the issuers" (Mats Olausson, 2023). Kim Hellström (2023) echoed this view that the greenium was of lesser importance in the issuance of the SLB, approaching the subject from the company perspective: "the biggest win will not be the lower interst rate that we achieve, but the mindset change throughout the organization, and how that steers business".

Due to the adverse impact that the Covid-19 pandemic was having on fashion sales globally, the timing of the issue presented a potential risk (Vladimirova, 2022). On one hand, the uncertain macro-economic backdrop could negatively impact bond reception among investors. In contrast, it was noted that the sustainability feature of the SLBs can create a "positive momentum about the issuance", to some extent lowering the transaction risk (Advising bank, 2023). In parallel, however, "investors scrutinize all types of risk […] if the company is performing really poorly, then I don't think a green transaction could mitigate any of those drawbacks" (Advising bank, 2023). In cases where "there is a really problematic company in a troublesome situation, maybe we would not add this sort of complexity to it" (Advising bank, 2023). With the SLB introducing a financial obligation, H&M would be exposing itself to a potential financial penalty and would need to make significant investments in sustainability across the value chain. Nevertheless, this concern was "difficult to link to the H&M case, I [Advising bank] wouldn't see it as a problem", maintaining that H&M's position was adequately robust to issue an SLB despite the turbulent environment (Advising bank, 2023).

Framework set-up and KPI selection

Following the decision to issue an SLB, H&M and SEB jointly began drafting the framework which primarily revolved around the development and selection of the KPIs and SPTs. The central focus for SEB was to "help H&M set up an investment offering that was

beneficial to H&M in the short- and long-term, while also nurturing the investor relationship" (Mats Olausson, 2023). SEB sought to challenge H&M on the KPIs, to ensure materiality and ambitiousness: "we [SEB] often view our role as the devil's advocate" (Mats Olausson, 2023). It was further identified that "it might not be the case that those [issuer's] targets are material or ambitious enough to be used in a public market deal, so we try to push the issuer to become better, or to set more ambitious targets" (Advising bank, 2023). Part of the motivation behind the determination to ensure sufficient targets is rooted in the concern that "if you come to public markets and don't have ambitious targets, then you will be scrutinized on it, and be accused of greenwashing" (Advising bank, 2023). In the case of SLBs this was emphasized to be of particular concern due to the criticism the instrument has received on "not being robust enough or that there are issuers who don't set sufficiently material targets […] We [Advising bank] could do more green bonds and SLBs if we wanted do, but we say no to quite a few of the transactions […] we have a really high threshold for what we participate in" (Advising bank, 2023). SEB and H&M thus needed to approach the selection of targets in careful consideration of potential greenwashing allegations and scrutiny.

As the advisor, it was also SEB's responsibility to prepare H&M for what investors and others may focus on as potential weaknesses in the SLB framework, "you don't want companies to be put on the hotspot and be unprepared; should that happen, we as advisors have not done our jobs" (Mats Olausson, 2023). "All parties ranging from the investors, banks, second party opinion providers, and lawyers will all have a lot of questions for the issuers to answer, so the issuer's case will have to be robust" (Advising bank, 2023). Whilst it's not the underwriters' role to "mitigate the risks of these [greenwashing] allegations", they seek to support their client by ensuring a sufficient SLB framework by conducting assessments through "KYC and credit processes, as well as various types of committees" (Advising bank, 2023).

The framework outlines that the H&M SLB is to mature in 2029, while KPI targets for the coupon step-up are set for 2025 with 2017 as a baseline. By that date, H&M has committed to increasing the share of recycled materials used to 30 percent (KPI 1); reducing emissions from the Group's own operations by 20 percent (KPI 2); and reducing absolute scope 3 emissions by 10 percent (KPI 3). All KPIs fall within the "E" part of ESG, which can be explained by the tendency among Nordic investors to focus on environmental issues: "When we talk to Nordic investors in particular, a focus has been on environmental targets" (Elin Larsson, 2023). This phenomenon can also be observed in the broader SLB market, however, where the vast majority of SLB KPIs have an environmental disposition, with most common being scope 1

and 2 absolute emissions. The detailed description of H&M's KPIs and their calculation methodology is presented in Appendix 4.

KPI 2 relates to scope 1[3] and 2[4] emissions, and are emissions caused by a company's own operations; scope 3[5] emissions are related to the whole supply chain and are thus more difficult to measure and control[6]. According to Kim Hellström, most companies tend to focus on scope 1 and 2 when setting KPIs. Whilst emissions contributed by those operations are an important element to consider, they constitute less than 0.5% of total value chain emissions (Turner, 2021). Thus, it was perceived as the right choice from the climate perspective to include scope 3 emissions in the SLB targets. Furthermore, KPIs 2 and 3 were relatively easy to approve as they were already part of H&M's existing sustainability strategy which included targets for 2030, consistent with reductions to keep global warming well below 2 ^{o}C, verified by the Science Based Targets Initiative (SBTi): "we quite quickly landed on that we wanted to use those [emissions targets] because they are science-based and we want to connect our goals to science. We didn't want to create any new goals, we wanted to use what we had; therefore, it was very natural for us to use those. But what we had to do was to create goals for 2025, since our science-based targets are for 2030" (H&M Treasury, 2023). The exact targets for 2025 were derived by halving their existing 10-year targets for 2030, therefore making them consistent with H&M's overall sustainability strategy (Sustainalytics, 2021).

The underwriting banks emphasized that for companies such as H&M with scope 3 constituting the majority of emissions, including a corresponding KPI in the SLB is crucial, "if you have a majority of your emissions in scope 3, you need to address it, and you need to include it in your framework, if you don't, we as a bank will typically not join" (Advising bank, 2023). Consequently, had scope 3 emissions not been included, the relevant counterparties would have been unlikely to provide their approval of the SLB, "the second party opinion provider would have scrutinized it, so the issuer would not likely issue the SPO, and the investors would definitely scrutinize it" (Advising bank, 2023). Thus, despite scope 3

[3] Scope 1 emissions are direct GHG emissions occurring from sources controlled or owned by an organization (e.g., emissions from fuel combustion in boilers, furnaces, vehicles) (EPA, 2022).
[4] Scope 2 are indirect GHG emissions from the purchase of electricity, steam, heat, or cooling (EPA, 2022).
[5] Scope 3 come from activities and assets not owned or controlled by the organization, but which it indirectly affects in its value chain (EPA, 2022).
6 For calculating GHG emissions, H&M follows the GHG Protocol methodology for upstream emissions. However, with ongoing development in methodologies and technologies for the measurement of scope 2 and, especially, scope 3 emissions, the baseline year value for both KPIs 2 and 3 is recalculated to reflect those changes (Sustainalytics, 2021). The baseline year value must reflect any significant changes in H&M structure that impact SPTs, in aggregate, by 5% or more. Such changes can include acquisitions, divestiture, mergers, insourcing, outsourcing, and others (Sustainalytics, 2021). See more in the "Implementation" section.

emissions being difficult to reduce and subject to changes in measurement, the H&M SLB is unlikely to have been issued without addressing them.

The share of recycled materials was added to the list of KPIs after consultation with relevant advisors (H&M Treasury, 2023). Unlike the science-based targets used for KPIs 2 and 3, the share of recycled materials cannot be benchmarked against external standards. This is because most industry peers do not report it separately, but rather combine the metric together with sustainable sourcing targets. H&M's direct competitor, Inditex, although committed to increasing procurement of recycled materials, has not yet set any concrete targets (Sustainalytics, 2021). Despite lacking comparability, SPT 1 is considered the most ambitious of all three targets. Until a few years ago, recycling in the fast fashion industry has been minimal, or non-existent. This also applies to H&M, whose share of recycled material usage in 2020 was only around 2% (H&M, 2021). However, for this bond, "we [H&M] wanted to stretch ourselves, so we [H&M] set the goals even a bit higher than what we [H&M] knew that we [H&M] could achieve - because there are limitations when it comes to access to recycled materials and there's a lot happening in this space" (H&M Treasury, 2023). Sustainalytics (2021) highlights H&M's commitment to funding recycling technology and infrastructure which, together with the ambitious target, showcases their leadership in the industry.

As part of the SLB framework, H&M implemented a weighting system regarding the coupon step-up. This implies a different allocation of weighting to the KPIs in their contribution to the coupon step-up and is novel to the H&M bond structure. Missing KPIs 1 and 3 will cause a 10 bp step-up while missing KPI 2 triggers a 5 bp step-up. According to Kim Hellström, higher weights were assigned to more challenging SPTs. This was done with the goal of incentivizing the company and avoiding greenwashing accusations (Turner, 2021).

#	KPI	SPT	Weight	Step-up
1	Recycled materials as a share of total material used	Up to 30%	40%	10 pb
2	Emissions from the Group's own operations	Down by 20%	20%	5 bp
3	Absolute scope 3 emissions from fabric production, garment manufacturing, raw materials, and upstream transport	Down by 10%	40%	10 bp

Table 5: Summary of H&M KPIs. Source: H&M Sustainability-Linked Bond Framework (2021).

The process of setting up this framework has also indirectly contributed to H&M's sustainability work by aligning and connecting different parties in the company, such as the treasury department, sustainability, and green investment team: "setting the goals, writing the framework, writing about how we're going to report, how we're going to achieve the goals, what's our strategy and all that created a very close dialogue and contributed to our relationships

and to the ongoing work and the collaboration going forward" (H&M Treasury, 2023). Furthermore, the presence of concrete shorter-term goals for which H&M is held accountable creates a sense of urgency and strong incentive for H&M to deliver on its sustainability strategy: "they [SLB funds] are not earmarked for these specific investments, but it still creates the feeling that these funds should be used to achieve the goals. It also puts further focus. In order to achieve our goals for 2025, we really have to invest here and now. So, it helps to create the sense of urgency" (H&M Treasury, 2023).

Second party opinion (SPO)

Prior to finalizing the framework, H&M was advised to engage with a second party opinion (SPO) provider to reflect upon and evaluate the SLB. To understand the perspective of the SPO providers, we engaged with a representative from Sustainalytics who worked on the initial framework valuation, as well as review after methodology adjustment on the H&M SLB, hereafter referred to as "Sustainalytics representative".

Whilst obtaining an SPO is a "voluntary process for issuers of SLBs, with no regulations preventing them from going to market without an SPO, the implication would be that it [SLB] has significantly reduced credibility" (Sustainalytics representative, 2023). In that sense, the SPO is a crucial component in a green investors' checklist and needed to be acquired in order to receive a positive reception when the H&M SLB went to market. In the SPO space, Sustainalytics was the "first SPO provider for sustainable debt instruments, and remains the market leader", and thus became a natural choice for H&M (Sustainalytics representative, 2023).

The evaluation process typically commences with a pre-SPO stage, where the Sustainalytics technical team conducts a preliminary evaluation of the framework. Should the SLB pass this "pre-SPO stage, the proposal is passed on to the SPO team", if it fails, however, the issuer has an opportunity to make amendments (Sustainalytics representative, 2023). In cases of disagreement between parties, a dialogue takes place where "the issuer and its advising bank can engage with the technical team, and companies can push back on the view of the SPO, providing arguments why they think the KPIs and SPTs are strong". The extent of Sustainalytics' role in this, however, is limited to providing either a positive or negative opinion on the SLB, it does not invent or propose new KPIs in its SPO. To ensure a comprehensive evaluation, Sustainalytics also engages heavily with investors, "to comprehend what they are comfortable with and what they see as green and sustainable" (Sustainalytics representative, 2023). Based on those broader engagements, the second party opinion is provided. Following

the completion of the evaluation from Sustainalytics, it is up to the issuer whether the SPO is published.

Sustainalytics' core responsibility regarding the H&M SLB was "to evaluate the materiality of the KPIs and the ambitiousness of the SPTs" (Sustainalytics representative, 2023). To determine how H&M's bond performed in this evaluation, much of Sustainalytics' analysis was centred around H&M's past performance in the selected KPIs. Specifically, Sustainalytics analysed the development of both the share of recycled material in garments and emissions data for the three years leading up to the baseline year. If the "SPTs outlined in the SLB did not deviate from that evolution, then they would not have been seen as ambitious" (Sustainalytics representative, 2023). Sustainalytics also looked at how the "SPTs compared to peer performance, in particular vs. the publicly communicated targets by other large clothing manufacturers" (Sustainalytics representative, 2023). Finally, attention was directed to whether the targets were in alignment with science-based targets, a clear indicator of ambitiousness.

Throughout the process, SEB acted as "a liaison between H&M and Sustainalytics", and it was clear to the Sustainalytics team that "they [issuing parties] had a very robust strategy [...] there were definitely some ambitions in regard to sustainability prior to the issue of the SLB" (Sustainalytics representative, 2023). In regard to KPI 2 and 3, Sustainalytics found no issue with the emissions being a shortened version of H&M's already publicly communicated targets. On the contrary, they found that the connection with H&M's pre-existing targets was a source of credibility to the SPTs. Further, the emissions reductions being in line with the SBTi was a positive signal, "normally a company would not commit to something more ambitious than the science-based targets or what they are publicly communicating because then there is a conflict between the SPTs and the strategy" (Sustainalytics representative, 2023). Ultimately, Sustainalytics found the KPIs material and the SPTs ambitious[7], and H&M proceeded to publish the SPO.

Roadshow and placement

With the framework and SPO completed, focus turned toward the transaction and communication strategy. This entailed organizing a roadshow by arranging a number of investor meeting opportunities, which due to the ongoing Covid-19 pandemic, were less reliant on physical meetings in favor of recorded presentations and virtual encounters. The roadshow was run by BNP Paribas, Commerzbank, Danske Bank, SEB and Standard Chartered. For a

[7] Although Sustainalytics (2021) concluded that both of these KPIs have ambitious targets, none of them were found to exceed industry peers. While SPT 2 is commensurate with peer targets, SPT 3 is less ambitious than the targets of some industry peers.

regular bond, much of the investor presentation focus would have been dedicated to more traditional metrics emphasizing the financial strengths and funding strategy, while sustainability would only constitute a minor segment of the presentation. In the case of H&M's SLB, however, sustainability strategy and financial metrics were presented on a more equal basis (Mats Olausson, 2023). With business and sustainability strategy merged, providing investors with a deep understanding of the sustainability strategy was a crucial element in highlighting the long-term investment viability of H&M's SLB.

Concerning price, there was no existing curve to benchmark against given that the SLB was the first-ever bond for H&M. The fledgling SLB structure posed further restrictions of comparability and thus the establishment of the fair value (Turner, 2021). Things were also complicated by the ECB's decision to change the rules regarding securities with coupon step-ups, rendering H&M's bond the first ever SLB eligible for the Corporate Sector Purchase Programme (CSPP) (Turner, 2021). Because of this regulatory change at the beginning of 2021, the comparability of all previously issued SLBs to the H&M SLB diminished. For instance, UK grocer Tesco's €750m July 2029 BBB- rated debut SLB, which was of similar size, rating, maturity and with similar KPIs, was now an imperfect comparable. With this backdrop, the advisory banks adopted a broad range of comparables, featuring retail credits to similarly rated securities in retail, luxury, services, and other Nordic names in order to decide on a starting price for the announcement (Turner, 2021).

Given the bond's novelty and lack of comparables, the yield developed dynamically throughout the bidding process. The initial guidance was set at 95-100bp over mid-swaps, and resulted in massive interest from investors, ending up 11 times oversubscribed with EUR 5.4 billion in orders. Following investors' feedback and the substantial order book size, a discussion ensued between the banks and H&M to cut the interest rate, but without sacrificing too much investor interest (Mats Olausson, 2023). This resulted in a price adjustment to reflect the 70-75bp range, later revised down to 60 bp and then finally settling at 50bp over the mid-swaps, or a 0.397% yield. Although some investors had decided to drop out throughout the price increases, the book size remained very high, with the bond eventually ending up 7.6 times oversubscribed with EUR 3.8 bn of orders. At that point, the grey market priced the deal only a basis point tighter (Turner, 2021). The final investors at the end of the process were various institutional investors from the Nordic region as well as the broader international community (see Appendix 5 for a list of top investors in the bond).

Investor perspective: reception and investment decision

To develop a deeper insight into the investors' perception of H&M's SLB, we spoke with the Handelsbanken portfolio manager who invested in the bond and focuses on green investments (referred to as Handelsbanken investors), vice president of ESG Capital Markets at Swedbank, Elin Larsson, who engages with investors on ESG bonds, and Alexis Cousins, a Sustainable Finance researcher at the Swedish House of Finance, formerly working at SEB as a Sustainable Finance Advisor, and currently as an Associate Director at Standard Chartered Bank.

As previously noted, the initial interest in the bond was so overwhelming that it motivated a substantial yield cut. We have outlined the four most important reasons for this: i) it was one of the first SLBs in the region, ii) it was a GSSS bond issued by a corporate in the apparel sector, iii) it was the company's first ever bond, and iv) it offered green investors exposure to circularity. In the following section, we will describe these in detail.

Key interest drivers

As described in the case background, SLBs were not widespread in the Nordics at the time of the H&M bond placement and were therefore new and exciting instruments for investors. Furthermore, because of the use-of-proceeds clause, many green bonds are concentrated to sectors that require significant CapEx. SLBs, on the other hand, enabled investors to overcome this limitation and "opened up for different new sectors in the market", providing investors with diversification benefits as they could now "widen the scope of possible investments within the portfolio beyond simply utilities or real estate" (Handelsbanken investors, 2022). "Investors are looking for corporates because before the sustainability-linked instruments came, we had the other three [green, social, sustainability], and the market was only printing real estate bonds. So, investors were looking to diversify the risk. They don't only want to buy real estate ESG bonds, they were looking for corporate bonds" (Elin Larsson, 2023). This was particularly relevant for the fashion industry that was poorly positioned to issue green or social bonds, leaving the industry largely inaccessible to green investors. "They couldn't do green, social or sustainable bonds. So the first opportunity they had was to do a sustainability-linked format" (Elin Larsson, 2023).

With the SLB representing H&M's introduction to the debt capital market, it also presented bondholders with the possibility to invest in H&M as a firm for the first time – an "investment grade, mature company, with transparent reporting and ambitious targets" (Elin

Larsson, 2023). “All of these asset managers had never had H&M in their portfolio before, so it was just a good opportunity to diversify as well” (Alexis Cousins, 2023).

Finally, the H&M SLB differentiated itself from other instruments in the sustainability space through KPI 1, which was centered on circularity. “Investors who want to get exposure specifically to climate mitigation have a lot to choose from, but when it comes to investors wanting exposure to the issue of circularity, there’s very little, so this was a unique opportunity” (Mats Olausson, 2023). This likely contributed to the price inelasticity of the bond, with the book value remaining so high despite a drop of 50bp from initial guidance.

Bond evaluation and risks

However, not being a use-of-proceeds bond came with complications too, as “SLBs are not seen as sustainable investments” by default (Handelsbanken investors, 2022). For traditional investors, the concern of evaluating KPIs and SPTs was secondary. However, for any article 9 or other fund with a sustainability objective, there is a need “go through the internal process and then we [sustainable investors] look more deeply into the KPIs” (Handelsbanken investors, 2022). Investors’ approach to sustainability due diligence has become increasingly rigorous, as they are also concerned with their own reputational risks: “from my experiences, there were so many questions about ESG, more than anything else. Just because you don't want to be that pension fund or asset manager that makes the wrong investment which could threaten the legitimacy of the ESG fund” (Alexis Cousins, 2023). The evaluation represents a necessary step in the process as “there's a lot of companies that issue SLBs that don't have the right KPIs or that are not ambitious enough” (Handelsbanken investors, 2022). This highlights that even if there is a positive SPO on the SLB framework, sustainable investors still need to diligently assess the framework and verify the sustainability link through their own processes. Whilst investors still utilize and “read Sustainalytics and ISS […] they still rely on their own [evaluation]” (Handelsbanken investors, 2022).

The consideration whether a SLB qualifies as “green” largely revolves around the KPIs and the company’s overall sustainability performance. The key risk with SLBs is that the KPIs are “too weak”, making the commitment “business as usual” (Handelsbanken investors, 2022). In evaluating this, investors utilize the ICMA SLBP, measuring the bond’s compliance with generally adopted principles. They also prefer KPIs that are “transparent”, as there have been cases, including in Sweden, when companies had “KPIs that rely on a company’s own assessments of their work within the company” (Handelsbanken investors, 2022). Therefore,

there's a strong preference for "science-based targets and KPIs, because there's a third party that has verified the company's pathway going forward" (Handelsbanken investors, 2022). Investors also prefer bonds "with just a few KPIs […] the ones that have one or two KPIs are easy to follow up on" (Handelsbanken investors, 2022).

The significance of the coupon-step up, or financial penalty incurred in the case of a missed target is another element that should be considered. For longer dated bonds with higher maturities, a coupon step-up suffered early on can become quite costly and would be seen as highly negative from the shareholders' perspective, as such a penalty would have a direct impact on equity value, with "shareholder money going out unnecessarily" (Mats Olausson, 2023). However, whilst it is generally recognized that the larger the financial punishment, the more pressure on the company to act sustainably, most agree that "it would be more of a reputational risk for the company to not reach their targets" (Handelsbanken investors, 2022) and that "the primary driver for making an issuer change its sustainability strategy is not the scare of a financial penalty, but the reputational damage" (Mats Olausson, 2023). A large company like H&M can afford to pay the financial penalty, but the publicity of the event would be detrimental, and would lead to environmentalists rapidly mobilizing to shun H&M for its failure. "These are enormous companies, they can pay the financial penalty, but it will be very publicly known. It is information that they have to publish on their investor relations web page. Everyone will know that they are the ones that committed to this and then could not follow through. The actual financial incentive itself is just the risk of embarrassment" (Alexis Cousins, 2023); "When the bond matures, the coupon is usually insignificant in terms of size - it's not really a punishment to the companies. There's more of reputational risk that there will be headlines about not being successful in reaching the targets." (Elin Larsson, 2023). For the first issuers like H&M, this reputational risk is magnified as no company has thus far failed to meet an SPT. Issuers "don't want to be the first ones to not fulfill their targets" (Handelsbanken investors, 2022).

Another dimension of reputational risk relates to the impact that a missed target would incur on an issuer's investor relationships. "If you have highly ambitious targets, and you miss some of them, but can point to exogenous factors such as new regulation or the pandemic, investors will understand and continue to support you. If you have no such reasons, however, and the management simply failed in making the right decisions to improve the sustainability of operations, that will reduce the likelihood that investors support you next time you go to the capital markets" (Mats Olausson, 2023). Overall, the primary risk to the issuer comes from

damaged reputation as a result of missing SPTs, which is directly linked to their ambitiousness and materiality. Thus, precisely those criteria are emphasized in the investment decision making process: "The main discussion we're seeing right now in the market is all about picking really ambitious targets. It's not so much about the coupon having that effect, it should all be about the targets itself" (Elin Larsson, 2023).

SLBs have received criticism in that "the financing can be used for general corporate purposes" (Handelsbanken investors, 2022). Therefore, investors must carefully evaluate the sustainability profile of the issuer. In the case of the H&M SLB, this has been crucial. "Obviously, we had a lot of discussions internally about H&M and their work regarding their overall sustainability. The company operates in a sector that needs a lot of work if they would like to perform sustainability wise. And that's everything from environmental impact and supply chains to labor, human rights, and living wages - there's a lot of things that they need to improve. […] Fast fashion companies are definitely in the spotlight as they have business models that are built on cheap garments as well as speed to market and constant newness, which means that most of the garments are landfilled or incinerated within one year after production, and that's kind of scary. […] H&M is one of the leaders within the sector, they are one of the biggest companies and they need to start making a change. We seek to invest in companies that make change, and we hope they will" (Handelsbanken investors, 2022). It took quite a few meetings discussing H&Ms supply chain, living wages, and fast fashion business model before green investors ended up saying "yes" to the bond. The decisive impetus for investors was KPI 1 and the ambitiousness of the target: "I think that it was probably because of KPI 1 […] That is definitely highly ambitious compared to other players and past performances, and material to what they do. That's something we take extra note to" (Handelsbanken investors, 2022). This interest is in part likely a result of the work that SEB and H&M dedicated to communicating the importance of this KPI to the investors[8]. Furthermore, H&M identified that the inclusion of the scope 3 emissions KPI also strongly appealed to investors: "One thing [appreciated by investors] was also the fact that we included scope 3 emissions because most of the emissions in our value chain comes from the factories, from third parties when they produce the cotton and the materials, and the clothes. It's outside of our direct impact, but we included a KPI to reduce those emissions. And that's something that others, from what I've

[8] "SEB recommended that H&M dedicate time explaining to investors how they would address that KPI and why it was material to their operations, and how addressing that KPI would allow them to meet the demands of their customers while at the same time minimizing their footprint by shifting toward recyclable materials far exceeding the pace of any of their competitors" (Mats Olausson, 2023).

seen, hadn't done before, but something that we think is really important. I think that was well received among investors" (H&M Treasury, 2023). Investors agree on this point, citing particular appreciation for the inclusion of science-based targets and scope 3 emissions in particular: "emissions targets are always good. Especially if they include scope 3" (Handelsbanken investors, 2022). Scope 3 emissions are not among commonly used SLB KPI targets and are often a culprit in SLB greenwashing scandals, as it was with JBS Foods (Global Capital, 2023).

Post-investment factors

Another valuable element of SLBs for investors resides within post-investment activity. Sustainability-linked bonds require an annual progress report describing the status of the KPIs relative to the committed targets, as well as the activities that contributed to their achievement. Whilst this increases transparency, it also places a certain burden on investors to follow up on the results and, therefore, requires action in case of misalignment: "…if they don't behave in a way that aligns with us, then we will probably start a dialogue, book a meeting and have a discussion with the company. And in case they continue doing the wrong things, then we will probably have to sell the bond" (Handelsbanken investors, 2022). Notably, progress somewhat presents a two-sided coin, however, as "universal success of all the KPIs would probably imply that the companies have set too easy targets" (Handelsbanken investors, 2022). Since sustainability-linked bonds require more effort pre-investment compared to conventional bonds, they tend to be stickier in the portfolio. Thus, investors prefer engagement over divestiture, and this comes in different flavors – not only related to the bond itself, but also the general sustainability work in the company. It is important to note, however, that although investors emphasized the importance of monitoring and follow-up efforts associated with SLBs, H&M received relatively little engagement after publishing its SLB progress report: "We heard very little following the progress report. Actually, we thought we would hear more from investors, but it was very quiet" (H&M Treasury, 2023).

Other success factors

H&M portrays the success of the bond issue as "proof that the financial market values their ambitious sustainability work" (H&M, 2021). However, it is difficult to determine the true magnitude of the success as it was the first ever bond issued by the company with nothing to compare the yield to. Nevertheless, the bond did receive significant interest from green investors in particular, implying that the success can to some extent be attributed to the H&M's

sustainability efforts: “What we see was that there were a lot of green investors that invested in the bond. A large share of the investors were green: either dark, medium or light green – so clearly big interest from the green investor space and hopefully that contributed to the success” (H&M Treasury, 2023). The novelty of the instrument may also have played a significant role, a factor that will likely be of lesser importance as investors become more experienced with SLBs: “there was a lot of hype around the instrument at that point in time. The market wasn't really mature, investors were new to the game. Now we see that investors have become much tougher when they scrutinize the documents” (Elin Larsson, 2023).

Nevertheless, H&M intends to keep their options open and does not plan on leaving the green/sustainable debt market. The company considers pursuing similar opportunities for longer-term financing in the future: “As for our future plans, it makes sense to link financing to our sustainability goals, especially if it's longer-term financing. One thing with SLBs is that you cannot really do shorter-term loans since the goals have to expire within the lifetime of the bond. But for longer-dated financing, it makes sense for us to connect it to our sustainability agenda” (H&M Treasury, 2023). This thus added further incentive for H&M to reach their goals.

Implementation

Since “SLB funds are not earmarked” (H&M Treasury, 2023), it is not possible to measure the incremental effect of the SLB funds on H&M. Consequently, the focus area of this section is the KPI progress and H&Ms actions that contributed to achieving them.

Strategy

To achieve the SPTs, an integrated set of solutions was required. H&M defines three focus areas, namely: energy efficiency, renewable energy, and circularity. Regarding energy efficiency, H&M seeks to implement improvements in their own operations, as well as advise their suppliers on the matter. Renewable energy is addressed through Purchasing Power Agreements, solar PV system placement, a ban on new coal-fired boilers, and financial support to suppliers in emission reduction (Sustainalytics, 2021). To increase the proportion of recycled materials used, H&M looks not only at its own procurements, but also intends to invest and collaborate with industry stakeholders (for example, Hong Kong Research Institute of Textiles and Apparel) to increase the availability of recycling technology. H&M’s circularity efforts focus on resource usage optimization by increasing the technical capacity to recycle textiles and reducing the use of virgin materials (Sustainalytics, 2021). However, this strategy

continues to evolve as H&M identifies new needs and new measures: “it's a huge task to identify what has to be done, what H&M can do, the timeline, the cost. It involves our sustainability department, our treasury, and our production offices in the different countries. To build knowledge on this, we [H&M] are working with governments, we're working with different organizations, we're working with other brands. We focus a lot on collaboration because we share factories with many other brands. We put a lot of focus on trying to align with others on this” (H&M Treasury, 2023).

Actions taken

KPI 1: Actions taken to facilitate the progress on KPI 1 include the establishment of improved internal material organization that together with assortments teams and helps scaling up sustainable material sourcing. Furthermore, the newly developed tool “Circulate” is now in use by H&M group brands. The tool assists product teams in determining appropriate levels of durability while also prioritizing product recyclability. On the supplier side, initiatives include the creation of a dedicated engineering team to advise suppliers (H&M, 2022).

KPI 2: Progress on KPI 2 was enabled by increased use of renewable energy, which contributed to 95% of energy consumption for their own operations in 2021 (H&M, 2022). Initiatives that facilitated this development included the retrofitting of LED lighting in 4000 stores, a project that was brought down from “six to two years”, directly influenced by the SLB issue (Kim Hellström, 2023). Other changes implemented include efficient heating, ventilation, and air conditioning systems, as well as installation of solar panels on distribution centers.

KPI 3: To reduce tangible scope 3 emissions, H&M has leveraged their improved data quality to foster more dynamic relationships with suppliers, increasing flexibility as well as offering and facilitating decarbonization opportunities. One such initiative is the Green Investment program, which provides financial support, either in the form of direct investments or attractive loans to suppliers in the process of transitioning toward renewable energy sources. H&M has also begun “evaluating production units on a carbon intensity basis, measuring the primary fuel mixture and consumption of each unit, allowing them to identify suppliers with the dirtiest energy profiles” (Kim Hellström, 2023). A supply chain energy efficiency team has been established to support some of these suppliers, whilst in other cases H&M has simply steered business away from the worst polluters. H&M has referred to the shifting of business to more sustainability compatible and a fewer number of suppliers as “cutting the tail,” which

has provided H&M with additional leverage to incentivize suppliers to become greener, whilst also banning any new suppliers with coal boilers (Kim Hellström, 2023).

H&M highlights that in the deployment of these initiatives, a myriad of challenges has been revealed. For several of H&M's suppliers, particularly in Bangladesh, the Green Investment initiative has had varied success due to their considerable size. "Many of these factories have more employees than H&M, and the owners sometimes have their own banks, so they might not be impressed with us providing cheap loans" (Kim Hellström, 2023). In other cases, such as with Indonesia, "regulations limit factories to 15% of electricity being contributed by renewable sources", which has forced H&M to accept that in some countries the emissions goals will not be met, requiring operations in other countries to make up for that shortfall (Kim Hellström, 2023). Finally, H&M points to a severe challenge presented by carbon accounting regulations in that supplier emission reductions driven by energy transition improvements funded by H&M, cannot be fully claimed by H&M. With current regulations, H&M can only claim emissions reductions that correspond to their individual share of a factory's production output, despite H&M financed improvements reducing emissions for the entire factory. Effectively, this translates into H&M financing the sustainability improvements of their competitors, who may also utilize some of the factory's production output, thereby making such investments highly expensive[9] for H&M when measured in capital investment/claimed emissions reductions (Kim Hellström, 2023).

Progress

As of the issuance date, H&M started off with the following figures for the KPIs:

#	KPI	2017	2018	2019	*Target*
1	Recycled materials as a share of the total material used	0.5%	1.4%	2.2%	*30%*
2	Scope 1 & 2 CO_2 emissions (tons)	63,690	56,978	61,462	*50,950*
	Scope 1 CO_2 emissions (tons)	12,484	11,818	13,380	*10,700*
	Scope 2 CO_2 emissions (tons)	51,206	45,160	48,082	*48,950*
3	Scope 3 CO_2 emissions (tons) from upstream activities	13,479,100	13,479,100	13,069,880	*12,131,190*
	Scope 3 CO_2 emissions (tons) from upstream and downstream activities	18,215,000	12,215,000	17,662,000	*16,393,500*

Table 6: H&M KPI past performance as of bond issuance. Source: H&M sustainability-linked bond framework (2021)

[9] H&M highlights the financially unsustainable nature of arrangement and is in communication with regulators such as the WRI GHG Protocol as well as auditors to find an alternative carbon accounting solution.

In the 2 years following the issuance, H&M made significant progress in achieving the SPTs. However, it should be noted that the figures for 2020 and 2021 were affected by the Covid-19 pandemic and the corresponding decrease in activity, store closure, and layoffs. With regards to SPTs 1 and 2, the following developments in the KPIs have been recorded:

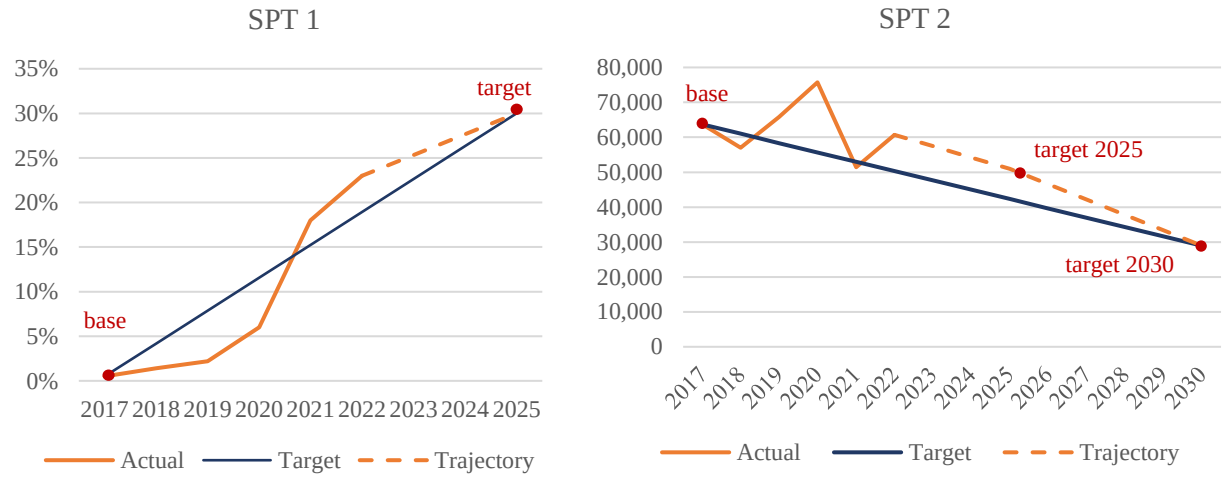


Figure 6: SPT 1 and 2 performance and trajectory necessary to achieve the target by 2025. Source: H&M annual reports.

H&M is on track (even a bit ahead) with the introduction of recycled materials. The significant increase was mainly driven by recycled cotton and polyester – materials for which the scalable recycling solution is available. However, the progress is unlikely to be linear, as some materials are more easily recycled than others: "last year, the outcome for 2021 was that we [H&M] had already reached 19.4% recycled materials, so we made huge progress in that year. That said, there are some materials that are easier to switch to recycled, and other materials that are more difficult to switch. So, it's not necessary that the trend will be linear" (H&M Treasury, 2023). Despite the recent jump in scope 1 and 2 emissions, H&M is close to achieving SPT 2 as of 2022. Although future growth in sales may have an adverse impact on emissions, H&M is on track to achieve its ambitious targets.

The progress is more difficult to track for SPT 3, as it was affected by changes in scope 3 emission calculation methodology (see Appendix 7 for description of methodology adjustments). As H&M improves access to data from suppliers[10], the baseline gets adjusted: "both the SLB and the fact that we set goals for this scope of emissions, require us to get

10 H&M states that the adjustments were necessary as the previous "high-level method" overestimated the emissions. When H&M first commenced reporting emissions data in 2017, a top-down approach was used, where an external consultant created the estimates. Since then, H&M has developed a bottom-up approach centered on a carbon pricing model based on estimating details such as the "weight of fabric produced, number of knots used, production location, type of energy used, whether that electricity was purchased, and fabric transportation" (Kim Hellström, 2023).

improved visibility of the emissions that happen there. We still put a lot of effort into getting our factories to report energy data to us directly […] But as we get better access to data the baseline will have to be updated based on the number we reach with the new, more accurate method" (H&M Treasury, 2023). Consequently, the development and future trajectory of scope 3 emissions depend on the year from which data is retrieved[11]. Although the target has remained the same – a 10% reduction relative to 2019 - the absolute figure it represents has significantly decreased given that the new methodology has reduced the baseline emissions from 13 to 4.5 million tons.

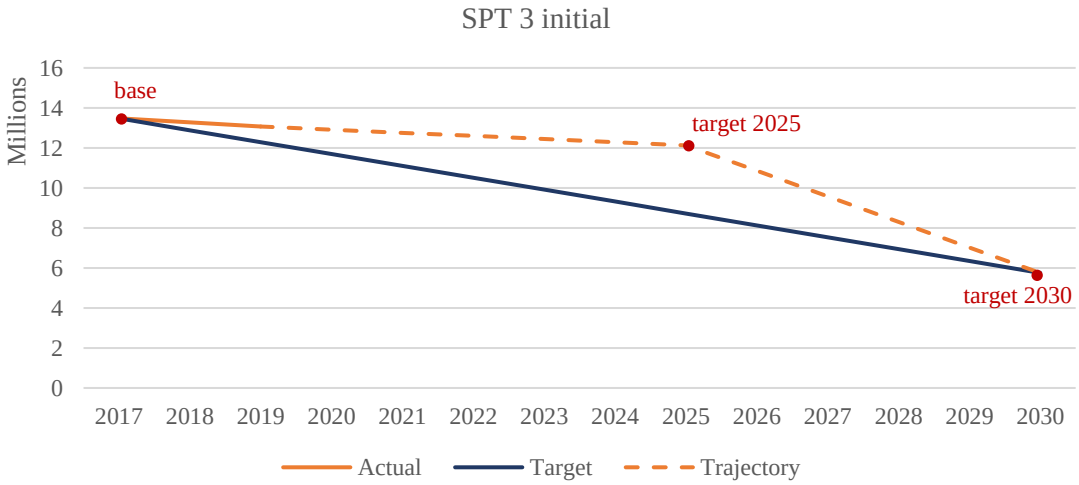


Figure 7: SPT 3 performance and trajectory necessary to achieve the target by 2025 and by 2030, given the figures as of bonds issuance. Source: H&M annual reports.

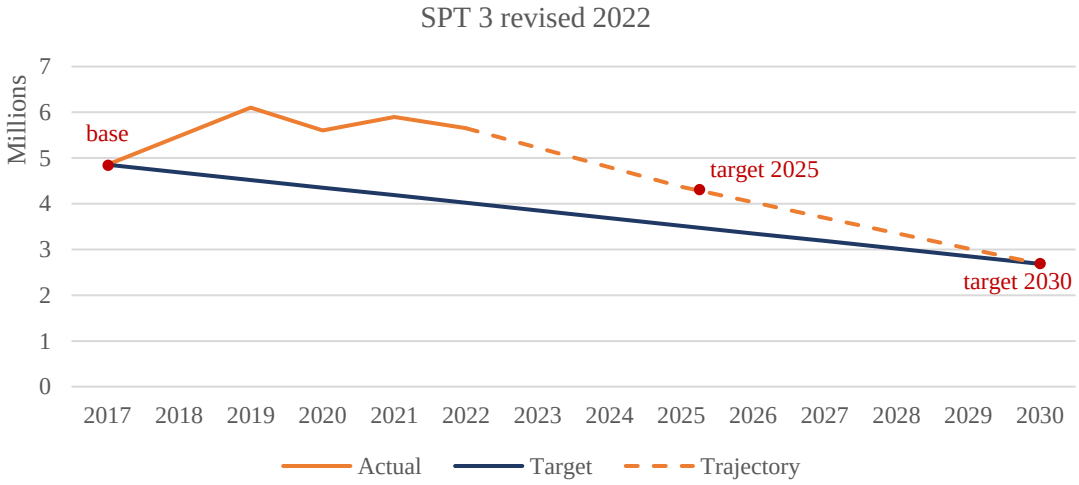


Figure 8: SPT 3 performance and trajectory necessary to achieve the target by 2025 and by 2030, given the figures as of 2022. Source: H&M annual report (2022).

11 The graph data is comprised of H&M reporting in various sources. The data reported after methodological adjustments is inconsistent (e.g. reported for some years, but not the others). For the visualization purposes, a linear interpolation was made to fill in the gaps. For the data table, see Appendix 6.

As of 2021, H&M has achieved a 12% scope 3 emission reduction relative to the base year, which is beyond the target of 10%. However, this reduction was largely driven by the adverse impact on sales due to the Covid-19 pandemic. In the annual progress report, H&M acknowledges that given the new measure for 2019, the likelihood of reaching the SPT 3 has significantly increased compared to its initial level prior to bond issuance (H&M, 2022). H&M states that it would evaluate the SPT achievement relative to both baselines – initial (13,069,880) and revised (4,854,000). The coupon step-up, thus, would be triggered by a failure to reach SPT 3 against either of 2017 baselines.

In line with procedures, Sustainalytics reassessed KPI 3 and SPT 3 given the new methodology, concluding that the bond remained aligned with the sustainability-linked bond principles (Sustainalytics, 2022). H&M believes that as they continue acquiring better access to supplier data, another adjustment may be required: "This [baseline adjustment] would probably happen, and we will see more of this during the lifetime of the bond. That's a consequence of involving something that is so complex as scope 3" (H&M Treasury, 2023).

Bond performance

The bond was issued at the beginning of 2021, and since then, the market conditions have deteriorated significantly. Still in recovery following the pandemic, Europe was struck with the Russian invasion of Ukraine. In combination, these factors resulted in the acceleration of inflation, an overheated economy, and, in response, increased interest rates. Along with the general bond market, SLBs and other ESG bonds have been adversely affected since "the ESG bond market is only a reflection of what is going on in the total bond market as such" (Elin Larsson, 2023). The difficult economic backdrop has been particularly detrimental for the SLB market, as "many companies that are issuing SLBs are often within the high yield space. And because of the market circumstance this year, there's been less activity within the SLB space" (Handelsbanken investors, 2022). Furthermore, companies were less inclined to commit to long-term sustainability goals given the overwhelming and urgent short-term financial issues: "everyone was thinking about how to preserve the cost infrastructure, so no one wanted to be assessed on their energy consumption year over year if you're turning to higher-emitting energy sources" (Alexis Cousins, 2023). However, investors remain optimistic about the future and expect the SLB market to recover once the general market conditions improve (Handelsbanken investors, 2022).

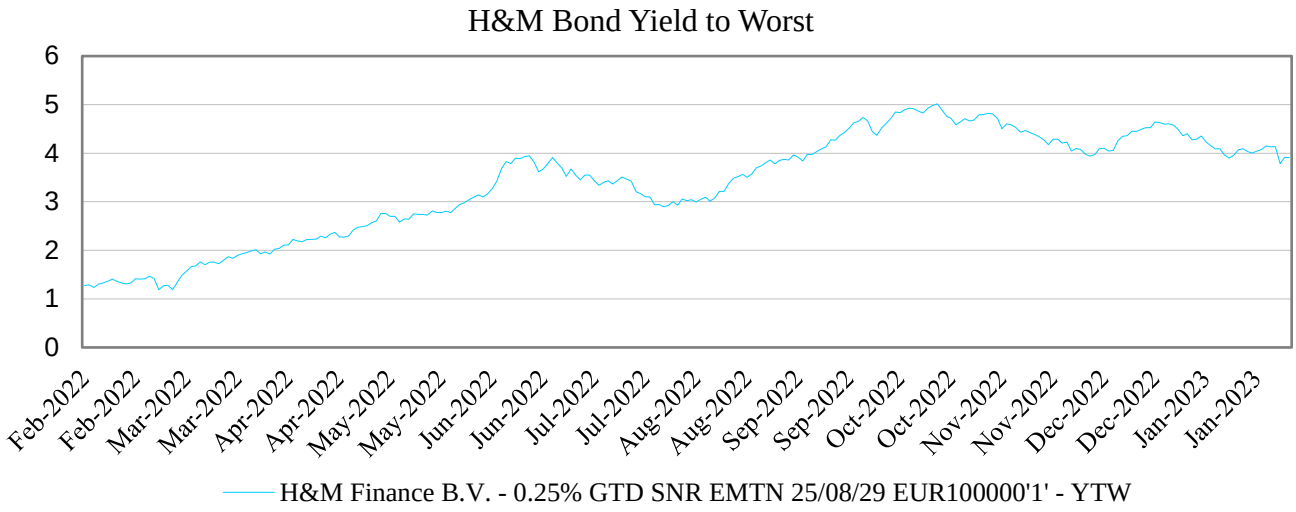


Figure 9: H&M SLB yield performance. Source: CapitalIQ (2023).

Some concerns around SLBs are linked to their callability, implying that right before the triggering of a coupon step-up, a company could call back the bond and avoid the penalty. H&M's bond is also callable, however, only a year prior to its maturity, which is years after the coupon step-up trigger date.

Sustainability linked loan

In March 2022, H&M also raised USD 1,113.58 million through a sustainability-linked loan (SLL) in the form of a revolving credit facility (RCF) set to mature in 2027, two years before the SLB maturity. The SLL is tied to the same KPIs and SPTs as the SLB, excluding KPI and SPT 1 (Global Capital, 2022). Although the KPIs and SPTs were initially established in conjunction with the SLB, the framework may be also applied to the SLL as well as other similar debt instruments. Regarding H&M's SLL, there is an annual goal that when achieved provides an interest reduction. The interest reduction for such instruments is very small, however, so for H&M "it's not really the financial incentive motivating the loan, it's much more work than what it's worth in financial terms" (H&M Treasury, 2023). H&M pursued the SLL following the suggestion from its financial advisors and given that they already had a framework following the SLB issuance, the SLL did not require much additional effort.

The fact that H&M utilized the same KPIs and targets can be interpreted from different perspectives. On one hand, there is a synergistic effect in utilizing one framework for different instruments and enables companies to seize momentum on the bond or credit market (Global Capital, 2022). On the other hand, having the same SPTs as the bond, the new SLL does not bring any additionality in terms of sustainability. H&M was committed to achieving those targets regardless of the loan, thus this instrument does not offer an additional commitment.

Discussion

What are the key drivers of SLB issuance?

Drawing on lessons learned from the H&M SLB and available literature, we identify several different motivations behind why an SLB may be preferred over another type of bond.

The first category of consideration refers to the cost savings and access to capital that an issuing firm may benefit from when issuing an SLB over a regular bond. This narrative is largely based on the premise that green instruments offer a reduced cost of capital, otherwise referred to as the greenium (Kölbel and Lambillon, 2022). In effect, should SLBs be cheaper for issuers, shareholders would benefit. It has been suggested that overpriced bonds, as induced by the greenium, can increase the share price due to a wealth transfer from bondholders to shareholders (Berrada et al., 2022). In this context, SLBs are positioned as an attractive alternative for companies to fulfill their fiduciary duties to shareholders, whilst simultaneously acting in compliance with sustainability (Povilonis, 2022). Kölbel and Lambillon (2022) took this narrative a step further, suggesting that there is a "free lunch" associated with SLBs in that the coupon step-up penalty is lower than the yield savings provided by SLBs relative to conventional bonds (Kölbel and Lambillon, 2022). The implication of such a free lunch casts doubt on whether SLBs provide incentive for issuers to pursue their targets. From the evidence presented in the case of the H&M SLB, however, H&M and its advisors expressed greater concern with the reputational risk than the financial penalty that the SLB presented. Whilst this reputational risk is difficult to quantify, the cost may be reflected in profit reduction, share price deterioration, or damage to stakeholder relationships (Hogarth et al., 2018). Factoring in this significant reputational cost as an additional expenditure to issuers of SLBs, the notion of a "free lunch" is challenged. The question thus lingers, does an SLB truly present itself as a cost saving instrument, or can the reputational cost explain the differential between the yield savings and coupon step-up penalty? One accompanying element where SLBs certainly appear to provide a benefit to issuers is that investors may be more receptive in terms of commitment size, and less sensitive to price decreases. Considering the significant oversubscription of the H&M SLB, this case reinforces that proposition.

As the SLB is public in nature and offers a unique platform for a company to communicate with investors and the broader community, issuers may also resort to an SLB as a signaling tool. Given the multitude of investments that H&M had made over the course of several years leading up to the SLB, we identify this as a fundamental motivation behind its issuance. Effectively, it was a way for H&M to communicate and share its commitment to sustainability

with investors. Flammer (2021) also alludes to this application of sustainable finance instruments, emphasizing signaling as one of the three categories for issuing corporate green bonds (Flammer, 2021). On one hand, the SLB thus demonstrates an issuers commitment to sustainability, which potentially exposes the firm to significant costs, in particular if the greenium does not prevail. In addition to communicating with investors, SLBs may serve as an effective tool to convey sustainability commitment to employees. As illustrated by the mindset change at H&M following the issuance, SLBs may incentivize managers to achieve sustainability targets, and could thus be a strategy for companies to align the interests of the firm. This phenomenon has been touched upon by the literature for green bonds, showing that after the issuance of such instruments, the environmental rating of the firm increases, and the firm level CO^2 emissions decrease (Flammer, 2021). In contrast to green bonds, SLBs can be issued by companies that lack pre-determined large CapEx projects, allowing issuers to utilize the signaling element with increased flexibility.

On the other hand, the marketing element of an SLB is accompanied by the risk that companies issue SLBs with intent of greenwashing. The structure of an SLB allows for the possibility of this, in particular if such instruments are indeed issued at a sustainability premium. Specifically, issuers can exploit several loopholes of SLBs, namely by setting unambitious targets, keeping penalties low, minimizing the impact of penalties by calling an SLB before maturity, and pushing target dates closer to the maturity date (Ul Haq and Doumbia, 2022). As previously discussed, the shift in consumer preferences for more socially and environmentally responsible clothing would provide a clear incentive for a company within the TA industry to improve their image in this regard. Indeed, representatives from the underwriting banks recognized that SLBs as sustainable finance instruments have endured greenwashing scrutiny, increasing the need for issuing parties to be ambitious in target setting. The reputational damage of such accusations would adversely impact both H&M and the advisors. In the context of the H&M SLB, this translated into the underwriters placing a requirment on the inclusion of scope 3 emissions targets. In parallel, H&M needed to balance setting ambitious targets, whilst also not needlessly exposing themselves to the reputational and financial risk that a missed target would entail. Falling prey to either of these shortcomings could prompt potential accusations of greenwashing.

Finally, we note that SLBs have the potential to nurture better long-term relationships with investors in a manner in which conventional debt instruments do not. Because of the dual commitment of SLBs, financial and sustainable, such instruments offer a greater commitment and generate additional credibility with investors if issuers can successfully reach their targets. We find that this narrative also has relevance for the underwriters as they often also have their own targets for sustainability related business, should they thus successfully issue an SLB that resonates well with investors, they may benefit from reputational and credibility gains. This suggests an incentive for underwriters to promote such instruments. For issuers, the benefit becomes increasingly important during periods when debt needs to be rolled over, or when economic instability threatens the firm. Additionally, SLBs offer a unique opportunity for firms to reach out to new investors that otherwise may not have been interested in providing capital to the firm. In particular, it opens up the possibility for brown firms to gain access to green investors.

Why do investors invest in SLBs?

Although H&M's SLB has attracted many green investors, SLBs require verification on a case-by-case basis to receive investment by green funds. Differing from use-of-proceeds bonds, investors go through a diligent process of internally assessing the SLB before approving it for any type of sustainability-related fund. Even in the presence of a second-party opinion on the framework, investors exercise this process, thereby incurring additional costs relative to conventional or use-of-proceeds bonds. Hence, even in the absence of the greenium, SLBs must provide some additional benefit to make them a justifiable investment. On this basis, the primary non-financial motivation for investors is to contribute to a company's green transition. Meanwhile, the biggest economic benefit to green investors appears to be diversification in instrument, project, and issuer type. In part, this is because the alternative sustainability related instrument for green investors, use-of-proceeds bonds, is often concentrated in industries that require high capital expenditure (such as real estate) or are issued by non-corporate entities.

These factors contribute to the general trade off investors face when considering investment in an SLB. On one hand, they recieve the non-financial benefit of supporting a company in transition, which, on the other, is accompanied by the risk of greenwashing due to SLBs potentially not contributing any material environmental and societal benefit – this can be through weak targets, non-material KPIs, or a company facing an ESG related scandal. In the context of the H&M SLB, which juxtaposes an ESG related instrument with a firm in a brown sector, green investors may face scrutiny from their limited partners for participating in the

allocation of resources to the fast fashion industry. As indicated by our interviewees within this space, these conditions intensified the need for elaborate evaluation of the SLB framework. Meanwhile, the additional work investors need to perform in evaluating the bond (i.e., verifying KPIs and SPTs), as well as the greenium they may pay for an SLB, is compensated with the financial benefit of diversification and instrument novelty.

Green investors		
• Investment in transition	⟷	• Greenwashing risks
• Diversification	⟷	• Additional evaluation expense • Possibility of Greenium
Non-green investors		
• Diversification	⟷	• Possibility of Greenium

Table 7: Summary of investor trade-offs when investing in an SLB.

Moving forward, if the diversification benefits and green transition exposure outweigh additional evaluation efforts and greenwashing risks, investors might shift preference toward transition bonds, which are also focused on investments in transition, but require minimal additional evaluation effort and offer lesser greenwashing risk due to their use-of-proceeds clause.

Why was the H&M SLB so successful?

Above all, H&M's SLB sufficiently fulfilled the expectations of a robust sustainability commitment: KPIs are material and SPTs are ambitious, H&M regularly reports its progress, and so far, is on track. A crucial aspect of this verdict is that H&M included scope 3 emissions, which constitutes most of the company's GHG emissions. This contrasts to the greenwashing scandal of JBS foods, that excluded scope 3 emissions, despite accounting for 97% of their footprint (Global Capital, 2021).

From the market perspective, there was a significant dearth of SLBs issued by companies within the TA sector, and even fewer within fast fashion. The novelty and scarcity of SLBs within this space therefore provided a unique opportunity for investors to diversify their risk, and gain exposure to a new sector. As described, one of the advantages of SLBs is that they provide green investors the possibility of investing in brown companies, and the H&M SLB was a clear example of such an instance. Not only was this H&M first SLB, but also the first time that H&M, a market leader, and financially sound firm harnessed the debt capital market, inciting additional excitement.

Expanding on the uniqueness of this investment opportunity, circularity was a KPI that rarely presented itself in other SLB frameworks, and a facet of sustainability of great interest to investors. This interest is significantly intensified following the fact that 50% of fast fashion products are "disposed in under a year" (McKinsey&Co., 2016, cited in Ellen MacArthur Foundation, 2017). With green investors following a mandate to invest in assets that provide both a financial return and support a healthier planet, the unmistakable materiality of this KPI thus sparked additional incentive to invest. On the basis that investors considered the KPI of circularity uniquely and unequivocally material, we observe a link to the research rhetoric that investors are willing to accept lower yields on financing instruments if they are perceived to align with their own sustainability related considerations (Vulturius, Maltais, Forsbacka, 2022). According to Mats Olausson, the resilience of investors to remain committed to the SLB despite price increases, was partially driven by the presence of the circularity KPI, potentially reflecting this relationship seen in the literature (Mats Olausson, 2023).

Whilst H&M's position as a player in the fast fashion industry contradicts the conception that it has a strong environmental profile, it should be recognized that H&M already had a robust sustainability agenda prior to the issuance of the SLB, and already emphasized transparency for the purpose of improving operations. In the realm of fast fashion, H&M was a leader in sustainability, which to some degree ascribes H&M with a strong environmental profile, one of the characteristics illustrated by the research to lower yields (Pohl, Schuler, Schiereck, 2023). Additionally, research has also indicated a further reduction in yield associated with syndicates sharing stronger ties with sustainability (Pohl, Schuler, Schiereck, 2023). The H&M SLB therefore likely benefited from SEB, its underwriter, being one of the 13 banks that launched the Green Bond Principles. H&M was also likely not a candidate that investors believed would exploit structural loopholes of SLBs due to H&M’s popularity and status as a global leader in fast fashion.

As also previously touched upon, consumers of fashion products have become increasingly concerned about the social and environmental impact of purchases. Issuers ignore concerns at their peril, resulting in serious risk of black-swan events (Etsy and Winston, 2009; Muntean and Stremtan, 2010). The implication of increased consumer awareness and desire for social and environmental responsibility may have urged fixed income investors to recognize the potential positive financial impact of H&M's commitment to sustainability. H&M’s SLB may have served as a support mechanism of the company’s low-risk profile, attracting the attention of risk-averse investors within the fixed-income space.

Finally, the shift in investor preferences over the past few years resulting in a growing investor base committing funds to green assets was likely a major driving force in the success of the SLB (Beck, 2022). Since this was H&M's first and only bond, the lack of a comparison makes it difficult to infer whether a conventional bond would have received a similar reception as the SLB. However, the overwhelmingly positive reception among green investors and price development throughout the issuance process suggests that the SLB gained more traction than a conventional debt issuance would have.

What sustainability impact has the H&M SLB generated?

As with all SLBs, the H&M SLB funds are not earmarked, thus it's impossible to verify whether the SLB funds have directly supported sustainability projects. Moreover, H&M already had a comprehensive sustainability strategy prior to the issuance of the SLB, thus prompting the question, what is the marginal impact that the SLB has had on incentivizing sustainable behavior? Critics may fault SPTs 2 and 3 in particular in this regard due to them simply being shortened adaptations of H&M's pre-existing goals. Although ambitious relative to peers, these targets already existed, which challenges the notion that the SLB has driven H&M to become more sustainable.

On the other hand, our interviewees indicated that utilizing pre-existing targets need not necessarily signify a lack of ambition on H&M's end, but rather adds credibility to the targets. H&M representatives recognized that SPTs 2 and 3 were selected primarily because they were part of H&M's existing strategy, making them quick and easy to implement. Thus, in the context of these targets, the SLB served to add additional accountability, in lieu of being a bold propulsion toward sustainability. Notably, by "tying themselves to the mast", H&M would instinctively strive to make the targets realistic while simultaneously ensuring sufficient materiality and ambitiousness (Mats Olausson, 2023). Whilst the financial obligation may not have been sufficiently threatening, the non-financial risks were severe. The reputational damage of not achieving the goals would be significant enough to justify investing in sustainable transition. It is also noteworthy that few firms that set sustainability targets ever reach them, thus the SLB was a significant escalation that provided increased liability in H&M's sustainability strategy. Since the issuance of the SLB, H&M has updated its targets to increase ambitiousness, in part due to improved data showing that prior emissions were overstated, but also because H&M was constrained by time during the creation of the SLB framework, and opted for a quick solution (Kim Hellström, 2023).

Scrutinizing the green initiatives that H&M launched post the SLB issue, such as the Green Investment function, the installation of LED's in stores, a new solar park, or a dedicated energy expert team, the extent to which they happened because of the SLB remains ambiguous. During interviews with H&M representatives, it was emphasized that H&M already saw themselves as leaders in sustainability among peers, seeking to reduce their total footprint and increase transparency, not because of the SLB but rather to improve their own operations, make better decisions, and realize customer needs. "I can't sit here and say that the SLB was the whole source of it [sustainability initiatives], no, it was a part of it" (Kim Hellström, 2023).

Where H&M claims that the bond has had a significant impact, however, is the mindset among employees. According to Kim Hellström, the SLB has spurred a stronger intrinsic motivation among staff to push sustainable agendas which has stimulated a more unified discussion and ambition to become more sustainable. Further, the presence of concrete shorter-term goals has accelerated many of the processes that were already in motion prior to its issuance. This sense of urgency can be observed in the more rapid implementation of LED lights, being quicker to drop non-complacent suppliers, and the shift of production to more environmentally friendly sites. Being such a public external commitment, the H&M SLB has also been credited with facilitating the mobilization of internal resources. Effectively, the SLB provides internal teams with additional justification for why they require funds for a certain project, or why a new sustainability initiative should be launched. Upper management may thus be more inclined to support or approve sustainability related activities. In this sense, the SLB has created an internal alignment of company's sustainability work by bringing different parties in the company closer and creating a shared dialogue. Ultimately, although it seems that the SLB has not revolutionized the way that H&M tackles sustainability, the SLB has been a useful tool in aligning the organization toward sustainability as well as expediting incumbent initiatives.

Conclusion

Conducting a case study on the H&M SLB has provided a unique opportunity to evaluate the motivations and implications of this novel sustainable finance instrument in the context of a globally recognized leader in a traditionally brown industry. Through the prism of this subject, we have drawn the following conclusions:

- SLBs are unlikely to present a free lunch. Previous studies have primarily focused on the financial cost-benefit-analysis of SLBs. It was a consensus among all interviewees representing different stakeholders that the true cost of SLBs, in particular for prominent firms such as H&M, is the potential reputational damage in case of missed targets. Whilst this reputational cost offers a challenge in that it is difficult to observe and evaluate, and thus excluded in prior quantitative studies, it is likely a factor in explaining the yield differential relative to conventional bonds despite the coupon step-up penalty, or the free lunch as outlined by Kölbel and Lambillon (2022) (Kölbel and Lambillon, 2022).
- The principal reason for issuing SLBs is to communicate a sustainability commitment without the need for large CapEx projects as is required for use-of-proceeds bonds, as well as building a long-term relationship with sustainability-conscious investors.
- The dexterity of SLB's as a communication tool acts as a double-edged sword by exposing the issuer to potential greenwashing accusations. This risk is intensified by prior companies issuing SLB's without a genuine and ambitious commitment to sustainability. In response, issuers and advising parties have established procedures and guidelines to ensure sufficient ambitiousness whilst balancing with prudent and achievable targets.
- SLBs present investors with an attractive opportunity to invest in transition while simultaneously providing diversification benefits by enabling investment in non-traditionally green firms. On the other hand, as SLBs are not by default considered green instruments, investors must evaluate the frameworks themselves to ensure adequate sustainability commitment and to avoid scrutiny. The diversification benefit of SLBs may begin to fade as more SLBs enter the market and occupy an increasing proportion of investors' portfolios.
- The successful issuance and impressive reception of H&M's SLB was driven by many factors, most importantly, it being their first ever bond. Furthermore, it was the first ever SLB in the Nordics, and one of few green issuances within the fashion industry. Despite being issued by a fast fashion company, it fulfilled the core criteria of a robust sustainability commitment by including science-based targets, most importantly for scope 3 emissions, as well as by including a recycled materials target, becoming the first in its class to include circularity – a desired

exposure factor for many green investors. Finally, being issued in collaboration with SEB, member of the executive committee of the Green and Sustainability-linked Bond Principles, as the lead advisor, provided additional credibility to the sustainability commitment.

- The SLB has improbably revolutionized the way that H&M tackles sustainability, and since the SLB funds are not earmarked, it is unclear whether the SLB has directly financed H&M's sustainability strategy and target achievement. However, it has added a layer of accountability and presented itself useful in aligning the organization toward sustainability as well as expediting incumbent initiatives.

Lastly, we summarized the general framework and all stakeholders to the SLB issuance (Appendix 8), as well as the major tradeoffs faced by the key stakeholders (Appendix 9).

Suggestions for future research

The topic of Sustainability-linked bonds represents a novel research area with many potential research questions to explore. We believe that the next steps would be to assess the effect of SLBs on a firm's sustainability progress in a quantitative manner, somehow, overcoming the limitation of not being able to track SLB proceeds, thereby providing insight into the efficacy of SLBs in driving sustainability. Furthermore, given the consensus among interviewees that the reputational cost is of greater concern that the financial penalty in the case of a missed target, more research should be dedicated to evaluating the expense this presents to a company and its shareholders. This will become increasingly relevant in the coming years as the first issuers of SLBs reach their target dates and will assist in determining whether SLBs truly present themselves as cost saving instruments. Conversely, we believe more research should be dedicated to the reception of SLBs at their issuance to better understand the relationship between the ambitiousness of targets and investor demand. Implications of such research could provide issuers with useful insight into the optimal ambition level of targets to secure adequate investor interest whilst also avoiding investor and public scrutiny in the context of greenwashing. An adjacent dimension of interest relates to the extent that SLBs strengthen the relationship between issuers and investors, in particular, during periods of credit tightening, when there is a reduction in availability of debt. Do issuers of SLBs improve their chances of rolling-over debt during such periods relative to issuers of conventional bonds? Broadly, these topics could offer deeper insights into the incentives and scope for the corporate and financial sector to contribute to addressing and resolving challenges with sustainability.

Referring to the limitation of a single case study, further research could also be done on a larger sample to gain further insight about the considerations and processes in a SLB issuance.

As this case study focuses on a giant within the apparel industry, a sector under significant scrutiny for sustainability practices, the benefits and the costs of SLBs may differ for smaller firms outside of the public eye and for industries under less scrutiny. Furthermore, this case is largely contained within the Nordic region, where stakeholders maintain high levels of awareness and consideration of sustainability issues. Therefore, we suggest applying the research questions of our thesis to firms of varying sizes, operating in different sectors and regions.

Appendix

Appendix 1: H&M partnerships

Partnership	Non-Profit Organization	Sustainability Issue
Philanthropic	Save the Children	Disaster and emergency relief
Transactional	CARE	Gender
Transactional	UNICEF	Education, healthcare services, child labor
Transactional	WaterAid	Water access and sanitation
Transactional	WWF	Biodiversity and climate change
Integrative	Textile Exchange	Organic cotton, animal welfare
Integrative	Better Cotton Initiative	Organic cotton, water use, child labor, forced labor
Integrative	Ethical Trading Initiative	Improved working conditions, forced labor, modern slavery
Integrative	Better Work	Improved working conditions, industrial relations
Integrative	IndustriALL	Collective bargaining, wages, freedom of association
Integrative	WWF	Water use, climate change, biodiversity
Integrative	United Nations Global Compact	Human rights, improved working conditions, anti-corruption acts, environment, water use, sanitation
Transformational	Canopy	Forest-based fabrics, biodiversity
Transformational	Organic Cotton Accelerator	Organic cotton
Transformational	Action, Cooperation, Transformation	Workplace dialogue, wages, freedom of association, collective bargaining, industrial relations
Transformational	Accord on Fire and Building Safety in Bangladesh	Occupational health and safety (fire and building safety), improved working conditions
Transformational	ZDHC Foundation	Chemical use, waste
Transformational	Sustainable Apparel Coalition	Chemical use, water use, energy use, waste, packaging, carbon emissions, recycling, improved working conditions

Source: Galvan et al. (2021)

Appendix 2. H&M Policy list

Human rights policy		
Own operations	**Business Partners**	**Materials and Products**
• Code of Ethics for Colleagues • Whistleblowing Policy • Grievance Policy • Non-Discrimination and Non-Harassment Policy • Policy on Diversity, Inclusiveness and Equality • Health and Safety Policy • Policy on HIV & AIDS • Compensation and Benefits Policy • Labour Relations Principles • Privacy Policy • Responsible Marketing Guidelines	• Code of Ethics for Business Partners • Sustainability Commitment • Child Labour Policy • Migrant Worker Guidelines • Home Working Policy	• Human Rights Policy • Animal Welfare Policy • Responsible Raw Material Sourcing Policy • H&M Group Chemical Restrictions

• Tax Policy		

Source: H&M Annual Group Sustainability Disclosure (2021)

Appendix 3. H&M's KPI dashboard for sustainability performance.

KPI	2019	2020	2021	Goal (2030)
Circular & Climate Positive				
% absolute reduction in scope 1 & 2 emissions – 2019 base	-	17%	-22%	-56%
% absolute reduction in scope 3 emissions – 2019 base	-	-14%	-9%	-56%
% change in electricity intensity in stores – 2016 base	-10.1%	-17%	-16.8%	-25%
% renewable electricity in own operations	96%	90%	95%	100%
% reduction in production water use – 2017 base	-5.9%	-3.8%	-10.3%	> - 25%
% of recycled / more sustainably sourced materials in goods	57.1%	64.5%	80%	100%
% of other more sustainably sourced materials in goods	54.9%	58.7%	62.1%	-
% of recycled / sustainably sourced materials in packaging	-	89%	68%	100%
% of supplier factories compliant with ZDHC Manufacturing Restricted Substances List	80%	88%	95%	100%
Fair & Equal				
% factories with trade union representation	-	32%	37%	-
% factories with collective bargaining agreements	-	18%	27%	-
% factories with digital payment solutions	-	82%	91%	-
% female workers in production supply chain	-	63%	63%	-
% female supervisors in production supply chain	-	24%	28%	-
% female worker representatives in production supply chain	-	59%	62%	-
% of female employees	76%	74%	74%	-
% of female employees in management positions	69%	71%	71%	-
% of female employees on the board of directors	67%	67%	55%	-

Source: H&M annual and Sustainability report 2021.

Appendix 4. KPI definitions

KPI	**Definition**
Share of recycled materials / total materials used in commercial goods	This KPI is defined as the proportion of recycled materials used in production out of the total amount of material used in production of commercial goods. The metric is calculated as a percentage (share of recycled materials in tonnes/total tonnes of materials used). Recycled materials are defined as materials that have been reclaimed from waste streams and includes recycled/reclaimed textiles.
Scope 1 and 2 GHG-emissions	Scope 1 and 2 GHG emissions are defined by the GHG Protocol as follows: • Scope 1 emissions are direct emissions from owned or controlled sources. • Scope 2 emissions are indirect emissions from the generation of purchased energy. Emissions are measured in metric tonnes of CO2-e (t/CO2-e). All emissions are calculated as per the GHG Protocol methodology.
Scope 3 GHG-emissions	Scope 3 GHG emissions are defined by the GHG Protocol as follows:

	• H&M's Scope 3 emissions calculation includes upstream emissions related to fabric production, garment manufacturing, sourcing of raw materials, and transport, thus downstream emissions are not included. All categories are based on the GHG Protocol. Emissions are measured in metric tonnes of CO2-e (t/CO2-e). The calculation methodology is as follows: number of products/spend is multiplied by life-cycle assessment-based conversion factors. Calculations in the footprint analysis are based on a combination of H&M group data and the best available public data sources on CO2-e emissions. For both KPI 2 and KPI 3, the levels of CO2-e emissions during the baseline year 2017 will be recalculated to reflect any *significant* changes in H&M Group's structure (e.g., acquisition, divestiture, mergers, insourcing or outsourcing). Recalculated levels of CO2-e emissions for KPI 2 and 3 will be reported to Science Based Targets initiative. The threshold value for a significant change is a change that impacts the Sustainability Performance Target, in aggregate, by 5 percent or more (which threshold for recalculation is in line with the recommendation by the SBTi). Any recalculations of levels of CO2-e emissions during the baseline year 2017 for KPI 2 and 3 must be reported in the annual Sustainability-Linked Bond Progress Report (see the reporting section below) verified by an independent, qualified external reviewer as outlined in the Framework.

Source: Sustainalytics. Second-Party Opinion: H&M Group Sustainability-Linked Bonds (2021).

Appendix 5. List of H&M SLB top investors

Investor	Country	Position	% Out
Alfred Berg Asset Management	Sweden	25,000	5.00
Danske Bank	Denmark	22,880	4.58
Handelsbanken	Sweden	22,450	4.49
Handelsbanken (Hållbar)	Sweden	10,000	2.00
SEB	Sweden	8,600	1.72
Capfi Delen Asset Management	Belgium	5,900	1.18
Petercam	Luxembourg	5,000	1.00
Storebrand Foncer	Sweden	5,000	1.00
DekaBank	Germany	4,751	0.95
BalckRock	United States	4,199	0.84
GAM Holding	Switzerland	4,125	0.83
Bank Of New York Mellon	United States	3,663	0.73
Handelsbanken (Företags)	Sweden	3,300	0.66
Handelsbanken (Räntestrategi)	Sweden	3,300	0.66
Ibercaja Gestion SGIIC SA	Spain	3,284	0.66
Swedbank	Sweden	2,500	0.50
AXA	France	2,473	0.49
Banque Lombard Odier & Cie	Switzerland	2,400	0.48
Handelsbanken (Euro Corp Bond)	Sweden	2,150	0.43
Metzler Global Funds	Germany	1,500	0.30
Canton of Vaud	Switzerland	1,400	0.28
Handelsbanken (DK Virksomobil)	Sweden	1,350	0.27

Source: Bloomberg, 2022

Appendix 6. H&M KPI progress figures

SPT 1	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Actual	0.50%	1.40%	2.20%	6.00%	18.00%	23%								
Target	0.50%	4.19%	7.88%	11.56%	15.25%	18.94%	22.63%	26.31%	30%					
Trajectory						23.00%	25.33%	27.67%	30%					

SPT 2	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Actual	63,690	56,978	65,796	75,735	51,431	60,701								
Target	63,690	61,018	58,345	55,673	53,001	50,329	47,656	44,984	42,312	39,639	36,967	34,295	31,623	28,950
Trajectory						60,701	57,451	54,202	50,952	46,552	42,151	37,751	33,351	28,950

SPT 3 initial	2017	2018 E	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Actual	13,479,100	13,274,490	13,069,880											
Target	13,479,100	12,884,611	12,290,123	11,695,634	11,101,145	10,506,657	9,912,168	9,317,679	8,723,191	8,128,702	7,534,213	6,939,725	6,345,236	5,750,747
Trajectory			13,069,880	12,913,432	12,756,983	12,600,535	12,444,087	12,287,638	12,131,190	10,855,101	9,579,013	8,302,924	7,026,836	5,750,747

SPT 3 revised 2020	2017 E	2018 E	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Actual	10,800,000	9,648,500	8,497,000	7,334,000	7,742,000									
Target	10,800,000	10,256,822	9,713,643	9,170,465	8,627,286	8,084,108	7,540,929	6,997,751	6,454,572	5,911,394	5,368,215	4,825,037	4,281,858	3,738,680
Trajectory					7,742,000	8,236,500	8,731,000	9,225,500	9,720,000	8,523,736	7,327,472	6,131,208	4,934,944	3,738,680

SPT 3 revised 2021	2017	2018 E	2019 E	2020 E	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Actual	4,854,000	4,677,000	4,500,000	4,389,000	4,278,000									
Target	4,854,000	4,632,923	4,411,846	4,190,769	3,969,692	3,748,615	3,527,538	3,306,462	3,085,385	2,864,308	2,643,231	2,422,154	2,201,077	1,980,000
Trajectory					4,278,000	4,300,650	4,323,300	4,345,950	4,368,600	3,890,880	3,413,160	2,935,440	2,457,720	1,980,000

SPT 3 revised 2022	2017 E	2018 E	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030
Actual	4,854,000	5,478,000	6,102,000	5,605,000	5,899,000	5,651,000								
Target	4,854,000	4,687,145	4,520,289	4,353,434	4,186,578	4,019,723	3,852,868	3,686,012	3,519,157	3,352,302	3,185,446	3,018,591	2,851,735	2,684,880
Trajectory						5,651,000	5,223,533	4,796,067	4,368,600	4,031,856	3,695,112	3,358,368	3,021,624	2,684,880

Source: H&M Annual reports (2017, 2018, 2019, 2020, 2021, 2022).

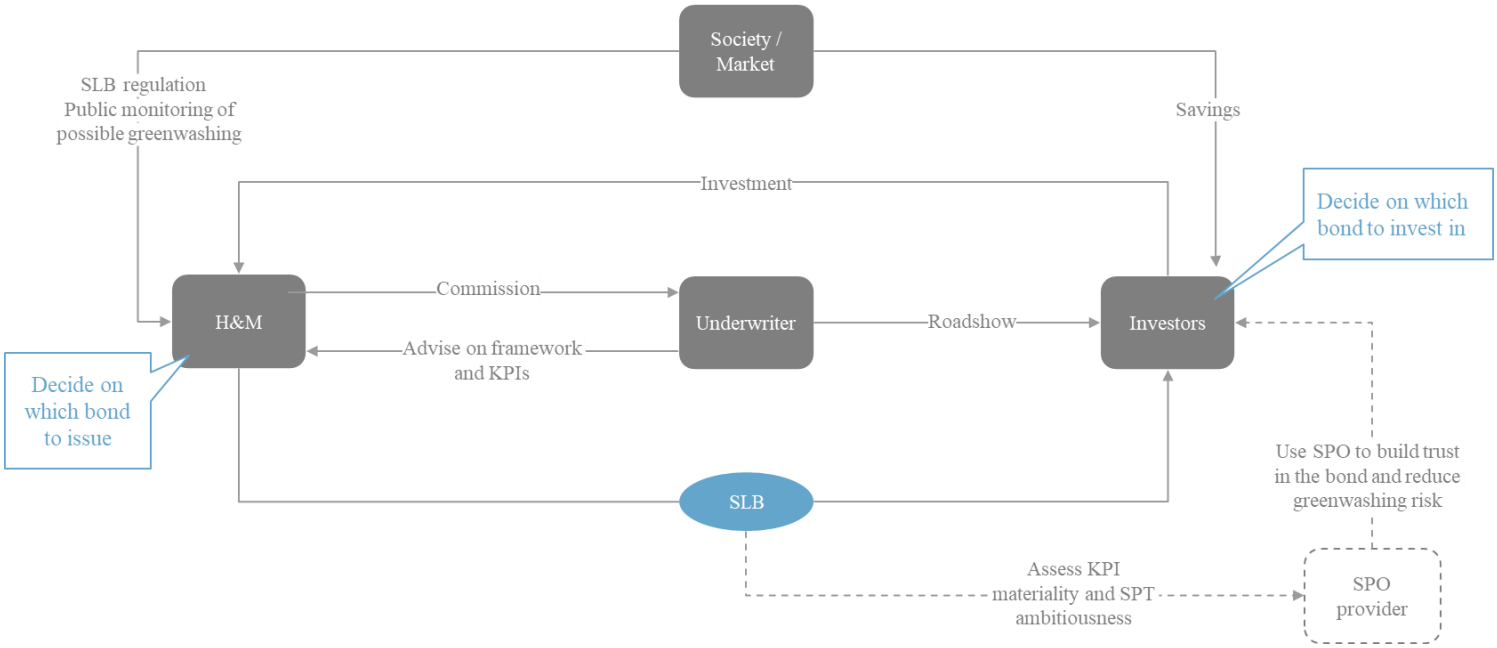
Appendix 7. Summary of the adjustment to the methodology for scope 3 emissions calculation.

Prior method	Elements incorporated in 2021
Assumption-based model where the number of products/spend is multiplied by life-cycle assessment-based conversion factors using a combination of H&M internal data and public data on CO2e emissions.	• Use of live and real data whenever possible. Estimates based on the share of materials are still used for suppliers that are not connected to the Company's data systems; • Wider scope of materials that takes into account the full mix of materials used in the Company's products, not just cotton, organic cotton, BCI cotton, polyester and viscose, which were the materials previously included in the previous methodology; • More granular information on yarn production and fabric production which are separately analyzed in more detail rather than as a single production process in the previous system; • For suppliers without real data available, emissions factors are based on Higgs Materials Sustainability Index (MSI) which is updated semi-annually [12].

Source: Sustainalytics (2022)

[12] It must be noted that the assessment was carried out before the greenwashing accusation with regard to H&M's use of Higgs Index.

Appendix 8. Graphical summary of the SLB issuance framework.



Appendix 9. Summary of major tradeoffs faced by the key stakeholders to an SLB, in form of comparative considerations between 3 instrument types: ordinary/general bonds, use-of-proceeds bonds (such as green, social, sustainability, transition, etc.), and SLBs

Perspective	Considerations	General	Use-of-proceeds	SLB
H&M: considering what bond to issue	Communicating sustainability effort	No	Yes	Yes
	Use money for general purpose	Yes	No	Yes
	Greenwashing risk and reputational damage	N/A	Lower	Higher
	Commitment to green project	No	Less flexible	More flexible
	Greenium	N/A	Less likely	More likely
Investors: considering what bond to invest in	Invest in sustainability	No	Green, social, transition, etc.	Transition only
	Novel instrument	N/A	No	Yes
	Industry diversified	Yes	Less diversified	More diversified
	Greenwashing risk	N/A	Lower	Higher
	Return	Full	Less likely greenium	More likely greenium
Underwriter	New instrument exposure	N/A	No	Yes

	Green instrument exposure	No	Yes	Yes
	Greenwashing risk	N/A	Lower	Higher
Society	Risk that money is invested in greenwashing	N/A	Lower	Higher
	Making society better	N/A	Yes (more likely)	Yes (likely)

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Interviews

Interviewee	Anonymized	Company	Perspective	Date	Duration
Fund manager	Yes	Major Swedish bank	Investor	20/12/2022	60 min
Kim Hellström	No	H&M	Issuer	27/02/2023	40 min
Mats Olausson	No	SEB	Underwriter	31/03/2023	40 min
Sustainable DCM lead	Yes	Underwriting bank	Underwriter	02/05/2023	30 min
Green investments lead	Yes	H&M (Treasury)	Issuer	30/01/2023	60 min
Sustainability associate	Yes	Sustainalytics	Second party opinion	22/02/2023	40 min
Elin Larsson	No	Swedbank	Independent	28/02/2023	40 min
Alexis Cousins	No	Standard Chartered (formerly at SEB Green Bonds), and researcher at SHoF	Independent	14/02/2023	40 min

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