

For professional
investors only

Dress to change

A fashion business
model for planet and people

September 2021

Introduction

“Fashion is the armour to survive the reality of everyday life” American fashion photographer Bill Cunningham¹ once said. While clothes protect our bodies from the forces of nature, fashion is a way of self-expression and a communication of identity. As such, fashion can underline belongingness to a certain group, but it can also challenge established norms and communicate a paradigm shift to peers.

Clothes and fashion are omnipresent in our daily lives. A necessity of life, the clothing sector has nevertheless been increasingly criticised in recent years for environmental pollution, and fashion companies have been accused of disrespecting and violating labour rights. Disasters such as the collapse of the Rana Plaza factory in 2013 in Bangladesh², as well as recent examples of garment workers producing clothes for the UK brand Boohoo without COVID-19 safety measures aggravate the picture of worldwide structurally underpaid workers in the garment sector.

Responsible investors have a “duty to act in the best long-term interests of [its] beneficiaries”³ and committed decades ago to not investing in harmful sectors such as the arms industry. However, the big players in fast fashion still figure prominently in the portfolios of many responsible-minded investors. In fact, many of these companies receive high scores in ESG ratings and transparency rankings, as they have adopted the language of sustainability and promote cosmetic changes to curb side effects without effectively tackling the root problems. Some of the large apparel companies do make efforts to tackle the negative consequences of the fashion industry

and engage in important initiatives to create positive impact. However, a transition to a sustainable fashion industry at scale requires companies to fundamentally change their business models and incorporate responsibility for people and planet.

This is why at Triodos Investment Management (Triodos IM) we look beyond environmental and social features of a company, by scrutinising the corporate strategy and business purpose, and the core business model. The corporate value proposition must be sustainable, and the strategy must be translated into key performance indicators, ranging from corporate programmes on supply chain due diligence to investments in innovation in recyclable and biodegradable materials.

Pure-play sustainable fashion brands are mostly small- and medium-sized, non-listed companies, which are financed by Triodos through private debt or the banking business. On the listed side, by contrast, fashion companies have grown too large to be pure-play. To be considered for investment by Triodos IM’s impact equities and bond funds, listed companies must therefore be aligned with one of our seven transition themes and meet strict sustainable criteria.

In this paper, we explain our position as an impact investor in large, listed companies in the fashion industry. We shed light on the (non-)value of fashion products and materials, while highlighting how current production and consumption processes are not sustainable.

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Executive summary

Dress to change

Fashion is big business. The global apparel market reached a value of USD 1.5 trillion in 2020 and is projected to grow to about USD 2.25 trillion by 2025.⁴ In recent years, however, the clothing sector has increasingly come to be known for its environmental degradation and disregard of human and labour rights. Despite increasing awareness among consumers and investors, the fast fashion industry continues to grow.

The mainstream fashion brands are large, stock-listed and powerful organisations. As in most industries, the 'big players' can earn excess profits through their market power in the supply chain and their consumer marketing power. The big players are also the ones endorsing reckless fashion propaganda to create demand based on clients' 'fear of missing out'. It is these companies that spur and exploit the alienation of consumers from the workers who produce their clothes.

Transition towards a sustainable fashion industry

Fashion companies must move away from non-valuable products, non-durable processes, and non-sustainable corporate business purposes. The transition to a sustainable, slow, and circular fashion industry entails amongst others a reduction of the number of design cycles, collections and produced fashion items per year; a radical change of the business model must build on the provision of valuable and durable products as sources of revenue. Corporate initiatives to increase the circularity and longevity of clothes include take-back programmes, recycling and designs which incorporate re-use. Instead of chasing the lowest price and inciting mass consumption, fashion companies should create fashion awareness and appreciation.

Valuable products and materials

Fashion companies should have a clear value proposition in terms of their products and materials. Materials should be designed to be re-used (recyclability, circularity), clothes that are made from certified renewable resource (environmental/social impacts), recycled materials/synthetic fibres (functionally), and innovative sustainable materials.

Low processed volume

In order to curb excessive production in the vicious circle of fast-paced and short-lived overconsumption and excessive amounts of textile waste, the production of new clothing items have to be limited through enhanced durability or longevity of clothes (longer life), and reuse (second life), or through recycling clothes into new or other products (new life).

Business purpose

Fashion companies must be able to make profits by producing less while charging higher prices to account for true costs. The business model must build on the provision of valuable and durable products as sources of revenue, and be prepared to service a well-informed and sustainability-minded customer base.

Our approach

As a responsible investor, Triodos IM selects companies for investment based on a set of strict criteria. A company must generate positive impact in one of our seven transition themes and must comply with our minimum standards. Through active engagement and dialogue, we aim to keep the company on the right track and to stimulate further improvement.

Growth-dependent and harmful businesses without any clear transition strategy will not succeed the transition to a sustainable economy, and we do not invest in such companies. In terms of the fashion industry, only companies who are embracing or clearly transitioning towards sustainable fashion in terms of valuable products, durable processes and long-term purpose are investable.

1 What is the (non-)value in fashion products and materials?

Fashion products

Clothes are not controversial products in the way that weapons or tobacco are. While clothing production processes often are very problematic, the value of a fashion items defines to a large extent whether a fashion item can be considered a sustainable product. The value of a clothing item can be described first by the functional or use value, second by the cultural or aesthetic value, and third by the material or intrinsic value. The value of a fashion or clothing item should therefore not be confused with the actual price consumers pay for it.

- I. Clothes have a primary **functional or use value**: In addition to the obvious use value of covering up nudity, clothes have been developed to meet functional requirements of various geographic locations, to keep us warm and dry or protect us from the sun or other environmental impacts. Work or sportswear is designed for specific functional purposes and intended to protect and/or enable physical activities.
- II. Clothing also possesses a **cultural and aesthetic value**: Clothes are a means of self-expression. Beyond their functional value, traditional clothes generally emphasise geographic origin, cultural heritage and group-belonging and status. In today's

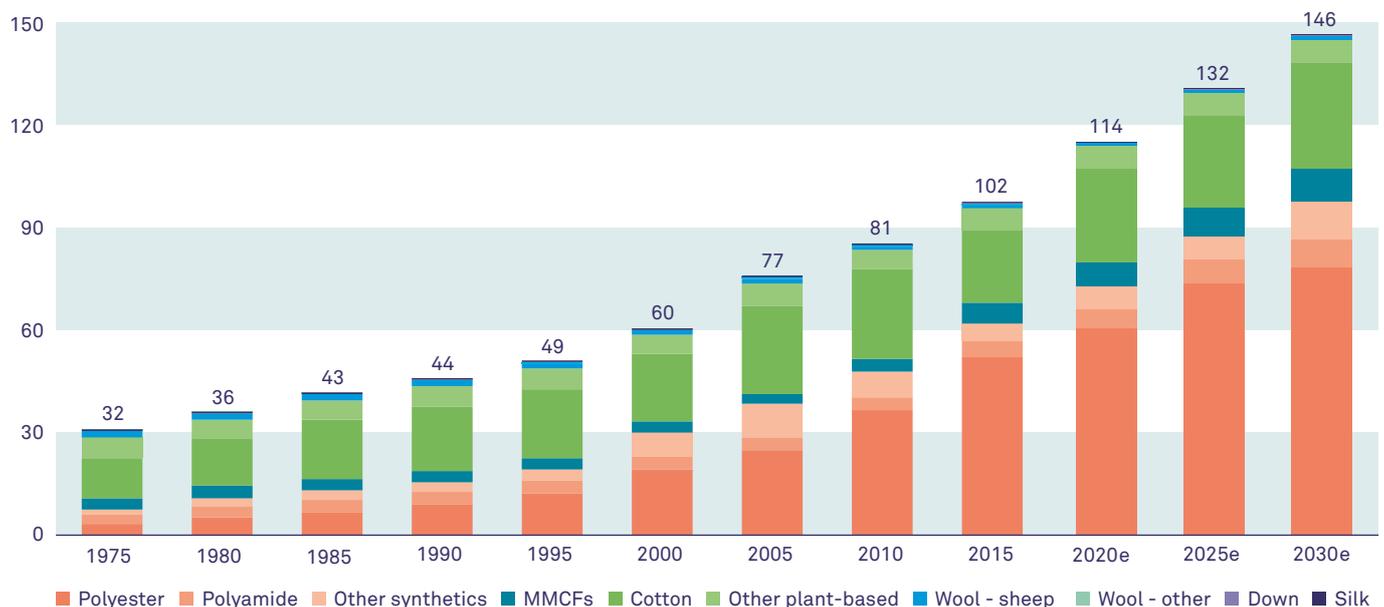
context, clothes are important for self-expression and belongingness, for instance in association with certain music or lifestyles.

- III. Lastly, clothing also has a **material or intrinsic value**: The fabric or material has an underlying value regardless of its use as a piece of clothing, its cost of production and resource consumption, and regardless of its value in the market. Materials differ in value related to their durability and long-term value and their potential to be reused as well as their recyclability or biodegradability. This can also depend on how fibres have been blended and treated.

Fashion materials

Early humans made clothing from plant fibres such as flax and cotton. To this day, natural fibres play an important role in the textile industry. Over the past half century, however, synthetic, or man-made fibres have begun to displace natural fibres and changed the textile industry drastically⁵. With the advent and rapid development in petrochemical synthetic fibres, notably polyester, cotton's market share has declined significantly to under 30% in 2015⁶. Figure 1 shows the development of fibre use in the textile industry over the past decades.

Figure 1 Global Fibre Production in 2019



Source: Textile Exchange, 2020 - Preferred Fibre & Materials Market Report, 2020

Polyester fibre has become a huge success in the global fashion industry because of the combination of low price and desirable properties. The evolution of synthetic fibres is one of the key factors that has made the concept of fast fashion possible – high production rates, high variety, and affordable prices. However, the environmental and social costs of this business model have been left out of the equation: ocean plastic pollution (microplastics), greenhouse gas emissions and overconsumption of cheap and short-lived clothing.

Natural fibres (plant and animal) are renewable and biodegradable. The best-known and most popular one for its soft, breathable and multifunctional material is cotton. Cotton owes its reputation of being water-thirsty to the fact that this crop is typically grown in water-stressed regions making sustainable water management a key challenge. The degree to which cotton farmers use rain water (green water) or irrigation via surface water from lakes and rivers or groundwater (blue water) varies significantly across the globe, depending on a number of factors, including climate, available rainfall and available groundwater, soil type, rate of evapotranspiration and the availability and efficiency of irrigation systems.⁷ In addition, cotton farmers use a variety of pesticides that target insects, weeds and fungal infections for crop protection. There is a wide range of (synthetic) pesticides and difference in how they are applied to the seeds, soil or plants. Furthermore, the amount of pesticides used per hectare differs significantly across countries. Without good disaggregate data on these various factors, it is difficult to assess the effects on ecosystems and human health, what remains clear is that hazardous pesticides must be banned globally. Labour rights in the cotton industry are critical, if smallhold farmers' livelihood in poor countries is threatened and child labour is at risk, or if cotton is farmed under state control where forced labour may occur. Certified products enhance transparency for retailers and consumers to understand the process behind a fibre and to make better inferences about the environmental impact.

Manmade cellulosic fibres (MMCFs) or semi-synthetic fibres are based on natural polymers (cellulose and proteins) that mimic the

combination of the natural raw cellulosic material and the chemical manufacturing process. Cellulose is broken down and 'regenerated' into a fibre by processing biomass in several steps (resembling production of paper pulp) where nearly all non-cellulosic substances are removed to produce a highly pure cellulose fraction (>90%) called dissolving pulp. Artificial fibres such as artificial silk or 'rayon' were first introduced in the 19th century. Recent semi-synthetic fibres such as lyocell are biodegradable. However, the biomass used is often wood, thus making deforestation and biodiversity loss sustainability risks, while the chemicals used in the production can be harmful for both people and the environment.

Synthetic fibres are derived from petrochemicals. Their production and use cause huge environmental pollution, up to 706 million tonnes of greenhouse gases a year⁸. Nowadays, synthetic fibres dominate the global textile market (with an estimated 60% of garments containing polyester fibres) due to their low price and desirable qualities. However, synthetic fabrics are one of the leading causes of microplastic pollution, with plastic particles ending up in the ecosystem without fully breaking down. While synthetic fibres are not biodegradable, they are recyclable and have use qualities as these are stretchable (sports clothes) or water repellent or resistant (rain and outdoor clothes) and fulfill an important functional value.

2 How (non-)durable are processes in the fashion industry?

Fashion sector and processes

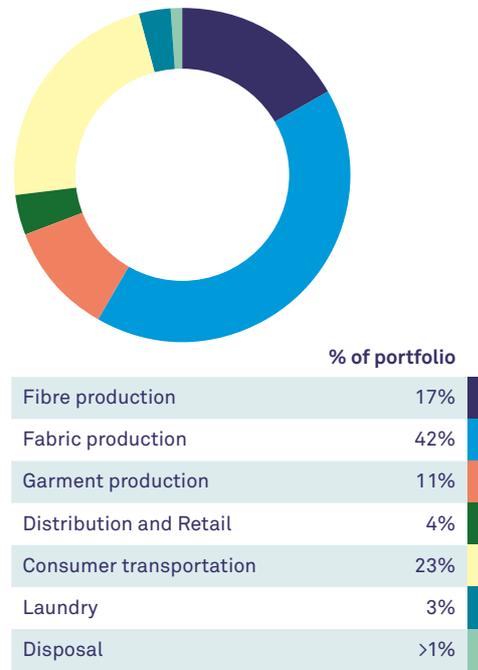
Fashion is big business. The global apparel market reached a value of USD 1.5 trillion in 2020 and is projected to grow to about USD 2.25 trillion by 2025.⁹ Despite the widely known challenges of the fashion industry in terms of resource-intensiveness and pollution, demand continues to grow. In the UK, the number of clothing and footwear items sold per person doubled from 25 to 50 between 2000 and 2015, while in the same period the average number of times a garment is worn before disposal has decreased by 36%. Around 92 million metric tonnes of clothes are disposed of annually, with 75% of them going into landfill or incinerated.¹⁰

It is imperative to change the production and consumption of fashion and to scrutinise the underlying processes. There are several stages in the life cycle of clothes - from raw material production, fibre spinning and fabric weaving, dyeing and printing, and garment cutting and sewing, to exporting ready-made garments and selling the finished product to the consumer. Each stage has its own environmental impact.

Pollution through washing and the disposal of garment items must also be considered. The fashion industry's impact on the environment through intensive energy, soil, and water consumption, and atmospheric systems during the whole process from fibre to fabric is currently adding up to 8% to 10% of global carbon emissions, as well as 20% of industrial wastewater - around 79 trillion litres per year.¹¹ As shown in figure 2, the fashion industry faces its paramount carbon challenge in terms of scope 3 emissions, i.e. the emissions caused by its supply chain. Huge amounts of energy are required to turn raw fibre into yarn and then into the final fabric.¹² This fibre and fabric production is often located in developing countries, where the predominant energy source is coal power.

Apart from the environmental impact, the fashion industry also has a high social impact. Approximately 430 million people worldwide work in fashion and textile production, the majority based in China and Bangladesh.¹³ In order to maximise profits, supply chains are pressured to produce goods faster and cheaper. Despite international legislation setting standards for the protection of worker's rights, human rights violations in the textile and garment factories still occur frequently.

Figure 2 Climate impact from different life cycle of a garment



Source: Own representation based on Mistra Future Fashion, 2015

Workers are jeopardised in their livelihood because they are structurally underpaid, child labour is increasing, as is the risk of workers falling into a lasting poverty trap. In addition, women, who make up the large majority of garment workers, are specifically exposed to gender-based violence. Overall, deficient safety standards and work intensification means the sector falls short of meeting occupational health and safety standards.

How did the textile industry end up in such a dire situation? When and where did this race for rapid mass production at the lowest cost start? Fast fashion originated from the political decision for free trade agreements (especially through the replacement of the General Agreement on Tariffs and Trade (GATT) by the World Trade Organisation (WTO) in 1995¹⁴, that made it both possible and profitable to outsource labour-intensive production to low(er)-wage countries.

Fast and low-cost production was further facilitated by material innovation of synthetic fibres in combination with low oil prices and the expansion of information and communications technologies (ICT). With fashion brands only keeping the design activities in-house and outsourcing production and sourcing tasks to supply chains, the operational separation widened and the

companies' knowledge of working conditions and human rights violations in their supply chains, diminished¹⁵.

The severe and problematic relation between the clothing industry and human rights violations became publicly evident after the collapse of the Rana Plaza building in Bangladesh in April 2013.¹⁶ This tragedy revealed the dark side of fashion not usually visible to consumers. For a long time, the fast fashion business thrived on consumer ignorance of human rights violations along the supply chain.

Fast fashion

Reaching a global market value of around USD 36 billion in 2019 and accounting for 2.4% of the total apparel market, the fast fashion sector is expected to grow to around USD 38 billion in 2023.¹⁷ The fast fashion business model involves three main elements¹⁸:

1. **Quick response (QR):** QR is an efficiency system developed by the US Apparel Manufacturing Association in the mid-1980s to compete against imports from low-cost labour markets. QR can achieve very short lead times - a total design-to-market time of just six weeks - by using near-shore production close to the markets, and by using standard methods and materials to reduce the need for samples.¹⁹

2. **Frequent assortment changes:** Brands and retailers test designs with focus groups to determine what is successful before submitting orders. In the interest of cutting inventory levels, amp up inventory turns, and avoid leftovers and cut-rate sales, orders tend to be smaller and more frequent. Reorders are only placed if sales data indicates a need. This increases the number of style cycles and seasons, incentivising customers to shop more often and buy more.
3. **Fashion at affordable prices:** The affordability of products perceived as fashion, trendy and 'fashionable' clothes, appeals to customers. In contrast to fashion products, basic products are perennial products that are always available with slight variations in design, such as white t-shirts.²⁰

Operational agility and time-based variety are key organisational characteristics, while the core value proposition that drives the business are fashionable designs at affordable prices. The concept of affordable prices can be further described by contrasting the mass market price segments with premium and luxury price segments. Furthermore, the reactivity of the business model (quick response) and its products (frequency of assortment changes and 'fashionability' of products), the category of fast fashion companies can be outlined, as shown in figure 3.

Figure 3 Business Model Framework: Fashion



Source: own representation based on Fashion on Thought, 2016; Société Générale Cross Asset Research, 2019

Turning slow

The different criteria on lead time, sales price and product types, allow for a classification in other business models besides fast fashion, such as luxury and basic and slow fashion. Luxury fashion distinguishes itself by significantly higher prices and higher quality fabrics, while basic fashion is mainly differentiated by the type of products sold, and traditional fashion by the absence of a short lead time (QR). Further differentiators may be found in the cost of the (raw) materials, product quality and durability, or the end-of-life cycle waste: Low production cost and demand for mass consumption, or lasting customer loyalty and brand reputation.

When comparing fast fashion to other fashion segments from a sample of 50 companies, it is striking that the market value of a company's outstanding shares of stock differs significantly across fashion categories. The average market capitalisation of luxury fashion companies was more than double that of fast fashion companies in 2020²¹, with sportswear companies taking the middle ground. Also, the real performance of luxury brands, measured in EBITDA margin, as well as largest revenue per category in 2020 significantly exceeded that of fast fashion companies, closely followed by sportswear. Nevertheless, the rapid growth of major fast fashion brands between 2000 and 2020 is remarkable: Inditex achieved revenue growth by a factor of almost 14 over this period and reached revenues of EUR 28.3 billion in 2020²². Although fast fashion companies are not as large as luxury companies and have not been growing as rapidly as sportswear companies over the past five years, the growth of the largest fast fashion players, namely Inditex, H&M and Fast Retailing has been tremendous over the last 20 years.

The growth of the fast fashion business can be explained by their market and marketing power. First, the bigger a player is, the more market power in the value chain they have and the better able they are to make gains by putting pressure on suppliers. Outsourcing production to suppliers instead of having it vertically integrated means that risks can be pushed down the supply chain, instead of having them on their own books. Furthermore, big and well-known players have important intangibles on the balance sheets, for instance in terms of marketing power towards consumers. Big fashion groups control a lot of different brands that account for the lion's share of market

presence. These two routes lead to the pushing out of competitors and earning even more money, thus establishing (stock) market dominance.

The COVID-19 pandemic hurt revenues in 2020, impacting both supply and demand, as factories and shops were forced to close, and consumers found themselves in lockdown. The pandemic revealed another core problem of the fast fashion business: Excessive production forecasts by brands which have often led to overproduction then turned into inventory risk as produced and ordered items could not be sold. This also highlighted the unequal risk distribution between brands and suppliers because brands did not pay for orders, pushing the risks down the supply chain. In March 2020, global brands reportedly refused to pay for an estimated USD 40 billion worth of goods that garment workers had already produced and 70 million garment workers were laid off globally without being paid.²³ Subsequently, in April 2020, the International Labour Organisation called for a sustainable system of social protection to make the garment industry more just and resilient.

Moving from a fast fashion model to a slow fashion model requires a total infrastructure change and a reduced throughput of goods.

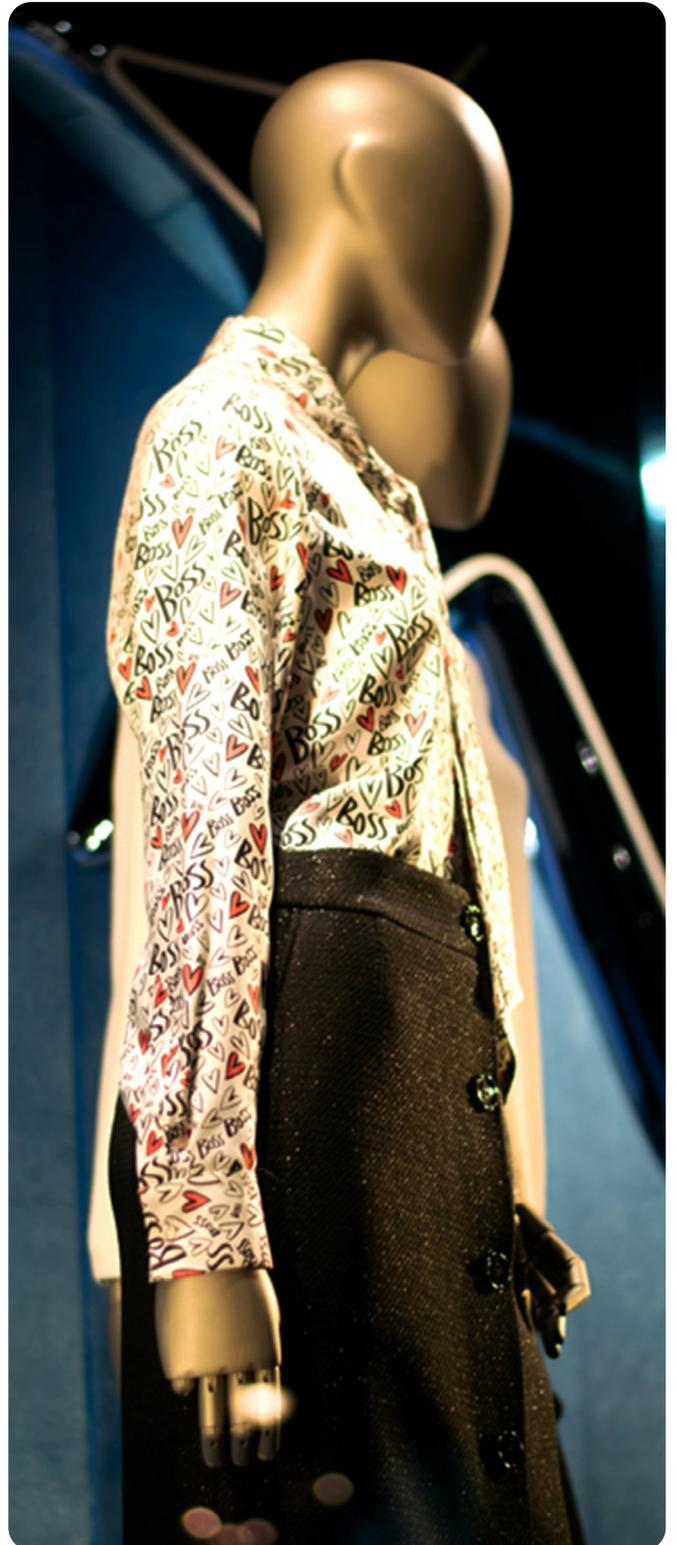
Slow fashion is the antonym of fast fashion but does not only characterise the 'speed' of the production system.²⁴ According to the self-named 'fashion and sustainability pioneer' Kate Fletcher, slow fashion represents a "vision of sustainability in the fashion sector based on different values and goals to the present day"²⁵. Moving from a fast fashion business model to a slow fashion model requires a total infrastructure change and a reduced throughput of goods. Circularity is seen as the alternative to the current wasteful production and consumption system.

3 (Non-)Sustainable Business Model

Even though fast fashion companies' mission statements read like a social mission, for example "creating value beyond profit"²⁶, or "making fashion and design accessible to the many"²⁷, the main goal of the fast fashion business model is to achieve high profits and growth through the overconsumption of disposable 'affordable' and 'trendy' clothes. The affordability is determined by the low prices consumers pay, at the expense of high environmental and social costs which are not counted, and the trendiness or frequent fashion cycles rely on the avid demand of clothes by customers, or their fear of missing out (FOMO) on trends.

The strong demand is deeply rooted in a society that is used to mass consumption and material satisfaction in developed countries. However, consumers' perception of wealth and utility, induced by companies' endless offering of cheap fashion items and fueled by corporate marketing targeted at feeding 'trends' to consumers, is erroneous. The negative social and environmental consequences of the apparel industry are ignored in the setting of retail prices. Fashion propaganda undermines consumers' rational, responsible and sustainable decision-making. By conditioning consumers to focus on short-lived, instant satisfaction and indoctrinating FOMO fashion propaganda smothers any thoughts of decreasing marginal utility of additional clothing items, actual personal budget constraints, or planetary boundaries. Celebrities and influencers dictate fashion trends ('must-haves') via social media. New marketing strategies and sales channels such as 'the one-click purchase model' on social media create opportunities for immediate and impulsive shopping behaviour. The stated social and values-based mission is incompatible with the core business model but is propagated with cosmetic or shallow social and environmental improvements.

Rather than chasing the lowest prices and inciting mass consumption, fashion companies should create fashion awareness and appreciation. This could be achieved by disclosing the true cost of clothing items, including the environmental footprint and the livelihood that workers along the supply chain can achieve with the wage and working conditions they have (and what percentage this accounts for in the retail price), as well as inciting customers to buy fewer but more durable clothes.²⁸



4 Triodos IM's position on fashion (transition)

Fashion companies must move away from non-valuable products, non-durable processes and non-sustainable corporate business purposes. To transition into a sustainable sector fitting a green, inclusive and resilient economy, the fashion industry needs to move from a business model based on low value and high volume (fast fashion) to high value and low volume (slow fashion), and an intrinsically sustainable business purpose.

Triodos Investment Management uses the Transition X-Curve to describe qualitative changes in a complex system, such as the current economic model. Growth-dependent and harmful businesses without any clear transition strategy will not succeed the transition to a sustainable economy, and Triodos IM does not invest in such companies. Only companies that embrace or are clearly transitioning towards sustainable fashion in terms of valuable products, durable processes and long-term purpose are investable.

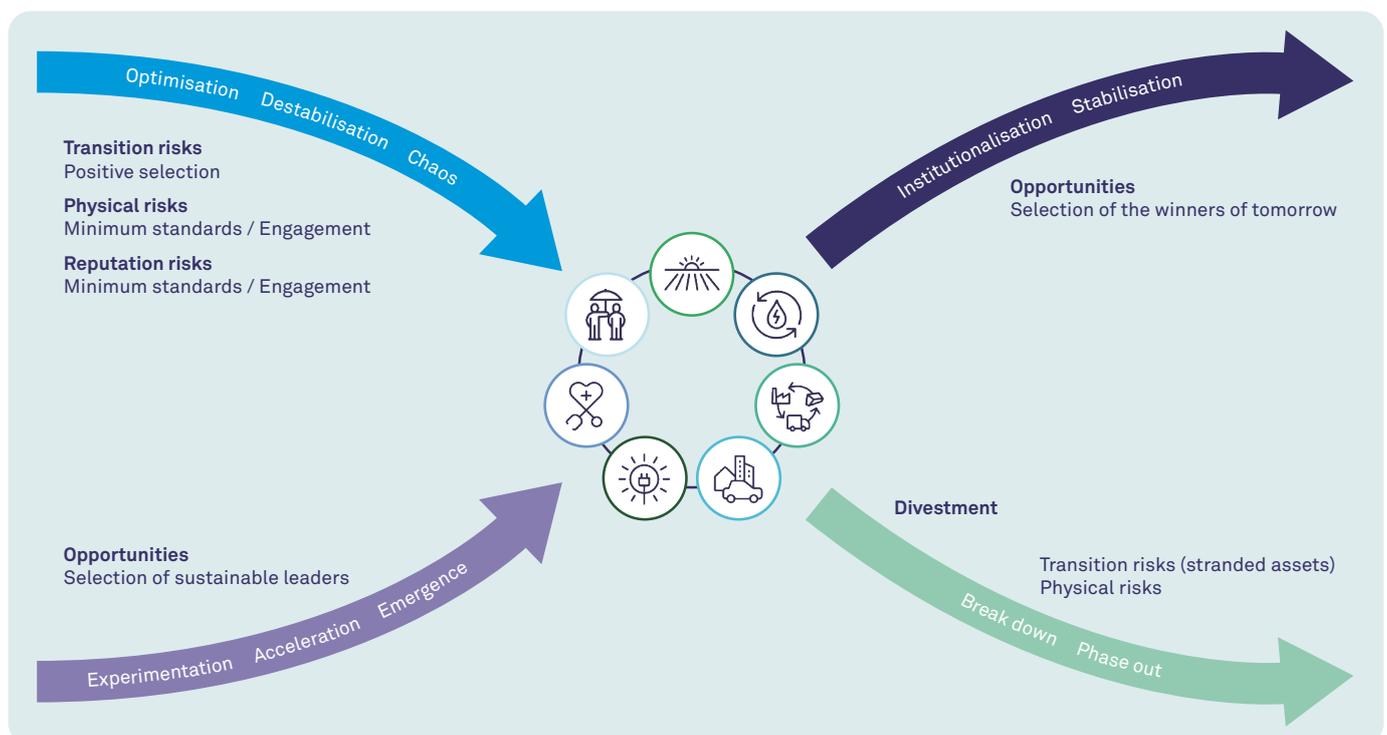
High value proposition

Fashion companies should have a clear value proposition in terms of their products and materials. Nowadays, in most western countries, the cultural aesthetic value of clothes often overrides the use-value. For this reason, clothes are considered valuable if they have a high functional value like sports and outdoor clothes or predominantly aesthetic clothes with a focus on a high material value. While styles and self-expression are important, short-lived fashion trends and quickly disposable clothing items are not considered sustainable and display an image of careless attitude. Overall, the intrinsic and material value in terms of the raw materials, fibres and textiles are fundamentally important.

The value of materials, fibres and textiles depends on multiple factors:

- the durability or longevity (lifetime/reuse-repair),
- the environmental footprint (in terms of resource use and pollution),
- the recyclability (and the environmental footprint thereof),

Figure 4 Triodos IM Transition X-Curve



Source: Triodos IM, February 2020 (based on Loorbach et al., 2017)

- the biodegradability and renewability of materials,
- the functional value of providing comfort or protection against environmental influences.

These are all important aspects to consider, and they make it challenging to determine whether a piece of clothing is truly sustainable or not.

Natural fibres are generally the preferred materials due to their renewable origins and biodegradable properties. However, negative environmental, social and animal welfare trade-offs should always be considered, for example the water intensity, or chemical or pesticide use in the production process. Certification schemes such as the Better Cotton Initiative (BCI), the Global Organic Textile Standard (GOTS), or Fairtrade provide guidance and help to minimise negative outcomes. As microfibres of synthetic material never fully break down, phasing out the use of synthetic fibres is vital in areas where they do not have a clear functional value, for example in sports or outdoor clothes. For garments where such fibre qualities are essential, we require the use of recycled materials, instead of new synthetic fibres. Furthermore, fashion companies often use many different types of fibres (blended fibres) to enhance the best qualities of each fibre. However, the recyclability of garments made from blended fibres is challenging. For these reasons, Triodos IM supports the design and material innovation of products which are made to be re-made. A lot of innovation is needed to increase the multifunctional application of biodegradable clothing to facilitate the phasing out of synthetic fibres.

Triodos IM only invests in companies supporting the transition to slow and/or circular fashion: materials that are designed to be reused (recyclability, circularity), clothes that are made from certified renewable resources (environmental/social impacts), recycled materials/ synthetic fibres (functionally), and innovative sustainable materials.

Low volume production

The overproduction of fashion companies with a high-value product proposition is leading to the equivalent of one garbage truck load of clothes being burned or dumped into a landfill every second.²⁹ To limit the production of new clothing items it is needed that:

- the durability or longevity of clothes should be enhanced (longer life),

- items should be reused (second life),
- clothing items can be recycled into new or other products (new life).

With the aim to curb excessive production in a vicious circle with fast-paced and short-lived overconsumption and excessive amounts of textile waste, a transition to sustainable, slow, and circular fashion is needed.

While recycling can be a good way to increase resource efficiency as it decreases the need for the sourcing of new raw materials, it nevertheless destroys the initial value of the resources consumed at production, transportation, and different trading stages. Apart from the fact that recycling in the fashion industry is currently only done on a small scale (and therefore at high cost), the recycling process mostly yields materials of lower quality (downcycling). For this reason, most recycled fibres for clothes are currently derived from waste streams of PET bottles; only 1% of clothes materials are recycled into new clothes. So-called closed-loop recycling, meaning that a clothing item can be fully recycled into a new piece, is not a garment design criterium as yet. To safeguard the value of the intermediary resource consumption, we need to increase and prolong clothing utilisation (longer life and second life, is better than new life). For this reason, the most sustainable piece of clothing is the one already produced.

What does this mean for fashion companies? A transition to a sustainable, slow and circular fashion industry entails the reduction of the number of design cycles, collections and produced fashion items per year. It also requires the conversion of production systems and logistics with a focus on sustainability. Corporate programmes to increase the circularity and longevity of clothes can include take-back programmes, recycling, repair services, second-hand or clothing rental. Wasteful practices such as landfill or dumping products on (developing) markets at discount prices would thus be prevented. At this stage, textile re-use is considered to have greater environmental benefits compared to recycling. However, innovation and technological optimisation is needed to support corporate action.

Circular fashion model

The Ellen MacArthur Foundation has formulated a circular fashion model³⁰ which is based on reduction, reusability, recyclability uses of different materials (and banning plastic) and incorporates educational efforts. Waste and pollution should be designed out, for example by eliminating non-biodegradable microfibres in clothing items in order to eliminate microfibre pollution. Moreover, products and materials should be more durable so that they can be used for a longer period and be reused. Furthermore, they should be 'made to be made again' by relying on reusable materials and materials the use of which does not lead to microfibre shredding.

Technological optimisation can support sustainable fashion solutions. Improved resource, production, and process planning may enhance circularity and prevent excessive waste. Pre-order systems would reduce resource inefficiencies and curb inventory costs. Customisation can yield tailor-made clothing items that better meet consumers' needs and desires in terms of size and design, likely to increase the usage rate per item, while digital showrooms eliminate the need of wasteful sample production. Furthermore, the increasing use of technology in the fashion industry will stimulate the automatisisation of processes, for example through 'sewbots' replacing human labour. This could enable the relocation of production sites close to consumer markets, thereby reducing transportation costs as well as carbon emissions.

Innovation in recycling would increase the quantity of clothes that are recycled and make recycling processes more efficient. This starts with collecting similar materials at each stage in the value chain, from the factory to the end-consumer. In addition, textile hubs could benefit from research and development in the region's economic development in terms of innovative recycling technology, systems and skills instead of large volumes of ready-made garments.

Business purpose

The advent and rise of fast fashion is due to a combination of historical, economic and political circumstances. Reduced shipping costs and regulatory changes, as well as progress in information and communication technology has fuelled globalisation and brought about a business model based on rapid mass production at the lowest cost possible.

The transition towards slow, sustainable and circular fashion requires a radical change of the current business model and alternative solutions for outsourcing production, externalising environmental and social costs, and shifting financial risks down the supply chain. The new business model must be based on providing valuable and durable products as sources of revenue and be prepared to service a well-informed and sustainability-minded customer base. In short, the value proposition must integrate sustainability into the core of its business model.

Less for more

Fashion companies must be able to make a profit by producing less while charging higher prices to account for true costs. This entails responsibility for both up- and downstream activities: responsibility from the sourcing of materials to the processing of the materials into a finished product, and the actual sale of that product to the end user. This implies that the transition towards slow, sustainable, and circular fashion cannot be achieved by companies alone. It also depends on the strategic environment and the interplay with consumers and policy makers, considering historical, economic and political circumstances.

Fashion companies must consider these aspects in their vision and mission statements and implement them in their long-term strategy, thus assuming corporate responsibility for the impact of their business operations on the environment and society. This entails responsibility for both upstream and downstream activities; from the sourcing of materials to the processing of the materials into a finished product, and the actual sale of that product to the end user.

Companies should consider

- Planetary boundaries for size of production and processes,
- Raw materials sourcing strategy (with environmental footprint),

- Responsible purchasing practices (negotiations with producing factories),
- Product governance (non-controversial products, end-of-life considerations),
- Impact on consumers and future generations (society).

It is therefore crucial that companies realise the historical setting and the combination of social, economic, political ecological and technological circumstances that we are facing in the 21st century. Climate change and biodiversity loss are imminent crises that the world is facing. While governments have committed to reduce carbon emissions and regulators are increasingly looking at ways to stimulate responsible production and consumption, companies in various industries are competing on sustainability claims. Meanwhile, consumers have become more aware of the social and environmental impact of their consumption choices, whereas responsible investment is moving to the mainstream.

It is unlikely that changing consumer awareness alone will influence actual customer behaviour enough to shift demand to the point that it affects fashion companies' core business. Even if they convince consumers that paying more for clothing and wearing it for longer will ultimately give them better value for their money, it will be difficult to replace the current high-turnover, profit-maximising business model. Consumer awareness should be translated into business risks for companies and heavier budget constraints for consumers, and also into a lower perceived marginal utility of yet another piece of clothing. This could be achieved through stricter legislation and regulation.

Legislation and regulatory framework on environmental pollution and supply chain due diligence are tightening and thus increasing compliance risks for companies' processes. Furthermore, if unsustainable materials were banned (thereby facilitating monostreams of recyclable waste) non-sustainable production would become a real business risk. Possible regulatory initiatives on responsible fashion production and consumption could include a quote on trend cycles or clothing items produced. Taxes could be introduced on non-valuable, mass-produced clothes, or on unused clothes to make their disposal more expensive. Irresponsible marketing inciting mass consumption could also be banned. Second-hand markets for valuable clothes or custom-made quality clothes could

be a business opportunity for companies, and even be subsidised by regulators to stimulate demand.

Beyond the ethical reasoning of well-informed consumers and the competing market dynamics of valuable and sustainable products, public policy can create clear business drivers and business risks to alter corporate strategy. Companies need to rethink their strategy in the given historical context in which they are operating and build their core business model around making sustainable profits.

The transition path to becoming a sustainable fashion company should be clearly reflected in the business model, for example in terms of performance metrics and targets, R&D expenditure for sustainable innovation, true price-accounting (including social and environmental costs of production and transportation) and appropriate budget allocation to implement corporate programmes.

Transparency, disclosure and comprehensive corporate communication are very important in this regard. For instance, companies need to map and disclose their supply chain including factories and raw material producers.

- Companies could make the breakdown of price and costs of a clothing item visible to the consumer on price tags with a clear indication of resource consumption, greenhouse gas emissions, and salary earned by garment workers.³¹
- Product governance entails corporate responsibility for the design and production of clothing items, but also post-sale responsibility for current and future consumers. Fashion companies' marketing strategy should reflect their commitment to making sustainable profits by ensuring consumers understand how they can use their purchasing power to buy fewer but more valuable clothing items, which have a lower depreciation rate than cheap short-lived fast fashion items.
- Companies need to assume responsibility and share the production risks with their suppliers. Such risks should become proper business considerations or incentives for vertical integration or reshoring, i.e. bringing back the manufacturing that went offshore during the globalisation boom.³²
- Companies need to collaborate with trade unions to understand and address workers' concerns and set up social contracts, and also with other companies to solve issues systematically and move the industry forward.

More transparency along the supply chain and full disclosure of the impact of fashion companies would make greenwashing more difficult, and hence for consumers and investors to look away.

Investing in fashion

The power of money

By the power of their money, consumers and investors can push the fashion industry in a more sustainable direction.

As a responsible investor, Triodos Investment Management selects companies for investment based on a set of strict criteria. A company must generate positive impact in one of our seven transition themes and must comply with our minimum standards. Once invested, we continuously monitor the company and track its progress towards our impact goals and engage with companies using their power and leverage as investors. Through active engagement and dialogue, we aim to keep the company on the right track and to stimulate further improvement.

Although the fashion industry has a big environmental footprint, clothing itself is an essential product, valuable in terms of use, material and identity. As described in the previous chapters, the sustainability issue lies with the production process and the prevailing business model of fast fashion. In order to achieve full transition, a new way of thinking and long-term, value-adding business must be embedded in the corporate purpose and strategy.

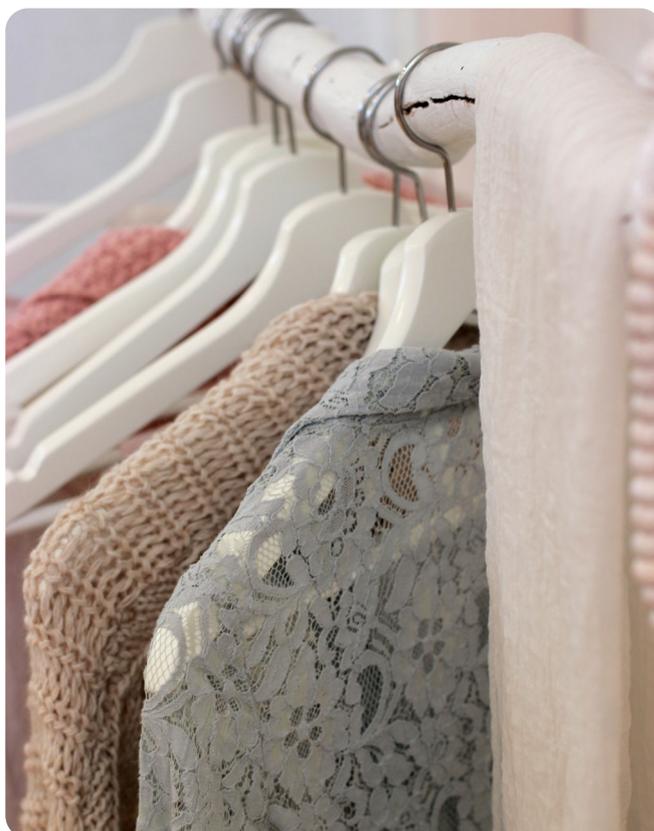
Two of our transition themes apply to the fashion industry³³:

- **Prosperous & Healthy People:** Sports and outdoor clothing has a high functional value and contributes to our health and wellbeing. Instead of following rapid fashion trends, sportswear makers normally operate on a seasonal business model, designing two main collections a year to 18 months before they hit the shelves. The cultural or identity value is connected to athletes and a healthy lifestyle.
- **Circular Economy:** Fashion companies that have a particular focus on the life cycle management of garments, textiles and fibres contribute to a circular economy. These could be fashion companies with a special focus on reusing and recycling clothes, for example by leasing clothes, operating second-hand clothes stores or offering comprehensive take-back

programmes. Also, companies that focus on sustainable and biodegradable raw materials and clothes or are leading the sustainable textile innovation can be selected under this theme.

We do not invest in companies whose business model relies on the fast pace of seasonality, large volumes and the disposability of garments. These companies depend on consumers' FOMO on trends, engage in overproduction and drive overconsumption leading to the exploitation of workers. They offer low value clothes at low prices, are responsible for massive textile waste generation and do not price in social and environmental costs.

Bottom line: The garment industry is an important and necessary sector. It employs many people and makes products that we all need. A large part of it, however, is also highly unsustainable. The (fast) fashion industry therefore needs to redefine its business purpose and model. We therefore call on the industry make this change, and on consumers and investors to steer the industry in the right direction: towards slow, sustainable, and circular fashion.



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With over 25 years of experience as a globally active impact investor, and as a wholly-owned subsidiary of Triodos Bank, Triodos Investment Management has developed deep sector-specific insights across Energy & Climate, Inclusive Finance, Sustainable Food & Agriculture, and Impact Equities and Bonds. Offering impact solutions through private equity, debt, and listed equities and bonds, our assets under management amounted to EUR 6.1 billion as per 30 June 2021.

Investing in positive change

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