FOLLOW THE (MONEY) THREAD

Tracking ownership and financing through the apparel industry

Planet Tracker
October 2023
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KEY TAKEAWAYS

The report has four main takeaways:

- Different nodes of the textile supply chain show variations in terms of the major funding types and major funding providers. Broadly, we see a split between the upstream (Tier 4, Tier 3, Tier 2) and the downstream (Tier 1 and Tier 0). Please see below for a quick visualisation of the textile supply chain.

![Figure 1: The textile supply chain has a number of tiers. (source: Planet Tracker)](source: Planet Tracker)

- Upstream (Tier 4, Tier 3, Tier 2) is associated with equity ownership via other corporates in the form of holding companies or larger conglomerates. We also see them relying less on loans for financing. Downstream (Tier 1 and Tier 0) is associated with equity ownership via large institutional investors and family holdings. We see them make greater use of loan facilities, usually underwritten by major developed market financial institutions.

- In the quest for a sustainable textiles supply chain, institutional asset managers can play their part in financing a just and equitable transition. They can do so by adjusting the way they support the funding needs of retailers and apparel manufacturers. By facilitating the trickling down of a sustainable agenda via proxy voting, investment decisions and a link to sustainable executive compensation (see our report Textiles Remuneration), equity investors can drive brands to take ownership of the environmental concerns prevalent within their industry, as well as the upstream stages of the textiles value chain. Similarly, fixed income investors could require clauses in instruments which feature a step up in the coupon if the issuer does not make tangible progress towards a particular sustainability target.

- Support for the provision of capital is especially needed in those areas where lenders and underwriters have typically been less active – the upstream sections of the textiles value chain. By means of sustainability covenants, financial institutions can influence the adoption and consolidation of greener practices.
EXECUTIVE SUMMARY

The fashion industry has a dirty problem. The manufacture of apparel is associated with significant negative environmental impacts, including high consumption of water, release of toxins and significant greenhouse gas emissions. During use, the washing of clothes releases millions of microfibres which find their way into rivers and oceans. At the end-of-life, most clothing ends up in landfill or is incinerated, further contributing to pollution of the air, land and water.

The challenge for the brands is that much of the negative environmental impact of the apparel they retail occurs further back up the supply chain and thus often outside of their direct control.

Despite a general improvement in the last few years, transparency within the textiles supply chain still has a long way to go. Consumers, brands and investors in the countries where the largest proportion of textiles are consumed are largely shielded from the negative environmental impacts of the textile supply chain. Much of the work occurs out of sight, in other countries. The opaque nature of the supply chain also makes attributing responsibility, and bringing pressure for change to bear, challenging.

Our first Following the Thread report published in June 2023 showcased our work to create a map of corporate actors active across the manufacture and retail of apparel. We allocated more than 3,900 entities to six nodes ranging from raw material production to post-sale of finished garments. The work allowed us to examine how sales, profits and capital are spread across the textile supply chain and how this mapped against the environmental impacts that fall across these nodes.

In this report, we extend the analysis presented in Following the Thread by adding in detail of the major funders (both debt and equity) for each of the stages of the textile supply chain. By showing who funds different segments of the manufacture of textiles, we can see which entities are indirectly responsible for the environmental and social impacts at the different stages of textile manufacture.
METHODOLOGY

Key points:

- Six tiers in the value chain analysed, from raw materials to post sale
- 3,900 companies, both public and private, included
- Financial exposure was determined by examining equity ownership, bond ownership and financing/underwriting

This report is a continuation of the work Planet Tracker presented in our Following the Thread report, in which Planet Tracker created a unique proprietary universe of the apparel supply chain to elucidate how sales, profits and capital are spread across the different stages of the apparel industry. By creating this universe of close to 3,900 companies, Planet Tracker was able to compare the location of value and capital to the location of the major environmental impacts that occur in the manufacture, retail and use of apparel. The universe is available via an interactive dashboard on the Planet Tracker website.

As explained in Following the Thread, the textile supply chain can be thought of as a series of tiers above the better known retailers – see Figure 1 on page 3.

More specifically, the tiers can be described as follows:

**Tier 4 – Raw Material Manufacturing:**
Includes cotton farms and other types of textiles or fabric farms like hemp and wool. It also includes the raw materials for plastics-based textiles, including production of polyester, viscose, nylon etc.

**Tier 3 – Fibre Production:**
The production of the yarn or thread. Natural and synthetic based.

**Tier 2 – Fabric Manufacturing:**
The point where yarn is woven into fabric, either through weaving, or for non-woven fabrics. Also, any processes done to the fabric such as dyeing or wet processing in order to make the fabric ready to be turned into apparel.

**Tier 1 – Garment Production:**
The point where fabric is turned into clothing.

**Tier 0 – Retail:**
Both wholesale and retail. Point of sale. If the company is a brand, this is the core node.

**Tier -1:**
Any kind of reselling, recycling or waste processing.
Once these nodes were defined, Planet Tracker analysed financial databases to identify public and private entities within the textile space. These entities were then assigned to the nodes we had set out using an algorithm that highlighted corresponding words in the business description of a company to a node within our universe (e.g., cotton farming within a business description as an indicator of raw material manufacturing). For a list of all the keywords used in this process please see the Follow the Thread methodology paper available [here](#). Examples of corporates at each node are included in Figure 2 below.

<table>
<thead>
<tr>
<th>Node</th>
<th>Example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Raw Material Manufacturing</td>
<td>Hubei Yinfeng Cotton Co. Ltd.</td>
</tr>
<tr>
<td>Fibre Production</td>
<td>Lenzing AG</td>
</tr>
<tr>
<td>Fabric Manufacturing</td>
<td>Toyobo Co. Ltd</td>
</tr>
<tr>
<td>Garment Production</td>
<td>Crystal International Group Co. Ltd.</td>
</tr>
<tr>
<td>Retail</td>
<td>Gap Inc</td>
</tr>
<tr>
<td>Post-Sale</td>
<td>Wangneng Enviroment Co. Ltd.</td>
</tr>
</tbody>
</table>

*Figure 2: Examples of corporate entities at each node (source: Planet Tracker)*

The initial allocations performed by the algorithm were then quality checked manually. A sample of the final allocations was then reviewed by Planet Tracker to check for errors, remove duplicates and subsidiaries.

Once the universe was populated, a series of financial metrics for the entities was extracted from the financial data provider Refinitiv. Initially all entities were exclusively assigned to a single tier within the supply chain. A decision was taken that, to improve the data used, the universe should be scanned for textiles value chain involvement using data from Dun & Bradstreet.

Planet Tracker used the Dun & Bradstreet data to identify revenue specifically tied to textiles for each company, arriving at a percentage exposure to the textile value chain for each entity within the Universe. On the back of this analysis, all datapoints were adjusted to only reflect each entity’s textiles value chain involvement. If a company was found to be operating across multiple value chain tiers, its financials were split across such stages, mirroring the percentage of revenues associated with each tier.

The current report looks to expand on the analysis previously conducted, by shedding a light on the main sources of funding across the textiles value chain. This has been done by focussing on the three main sources of funding which financial markets typically look at:

- Equity Ownership
- Bond Ownership
- Financing & Underwriting
Equity finance generally entails issuing new shares in exchange for a cash investment from those investors interested in taking a stake in the company's future profits. Such investors expect to receive a return on their investment and therefore have a say in the decision-making process via AGM proxy voting.

While equity investors exchange cash for shares and future profits in a company, bond holders are essentially lenders. Bonds are a type of loan to a company. Investors lend the money to the issuer of the bond and, in return, the company typically agrees to pay a certain amount of interest for a fixed period and to repay the original sum at the end of the term. Therefore, bonds provide the borrower with external funds to finance anything ranging from current operations to long-term investments.

Finally, underwriting is the process through which an individual or institution takes on financial risk for a fee. Underwriters help to set fair borrowing rates for loans, establish appropriate premiums and create a market for securities by accurately pricing investment risk. Underwriting is therefore explained as the act of facilitating the process through which a corporation raises funds. Underwriters can help in three main ways: by helping a firm raise equity capital (for instance via an IPO - Initial Public Offering), by acting as arranger for the provision of a loan, or by helping through the issuing process of a bond.

Altogether, these three data sources provide a comprehensive view on the main providers of capital for the companies of interest and therefore represent the base for Planet Tracker's ownership analysis of the textiles value chain.

Data on current and historical funding of the corporates in our Textile universe was compiled from the financial data provider Refinitiv.
FINDINGS

The ownership analysis presented in this report was conducted as of the end of June 2023. While equity and bond ownership records represent a snapshot at the time of this analysis, the figures relating to financing & underwriting use the last 10 years of available data. An important disclaimer is that the data extracted is only as good as the disclosures captured by Refinitiv, the data source used.

Equity Ownership

Key points:

- For upstream tiers of the supply chain (Tier 4, Tier 3, Tier 2), more than half of the tiers’ market capitalisation is concentrated among corporates, in the form of holding companies or larger conglomerates.

- For Tier 1 (apparel & garments producers), and Tier 0 (retailers), large institutional investors become a much more significant part of the overall shareholding. The retail tier is also characterised by large family holdings.

- The location of major investors mirrors this split, with upstream tiers associated with investors based in China or India, whilst Tier 1 and Tier 0 are more commonly funded by investors based in the U.S. or other developed markets.

Shareholder types and ultimate investors' location of incorporation vary greatly according to which node is in focus. There is an interesting divergence between the most important investor types when comparing the upstream and downstream stages of the value chain.

At the raw material level (Tier 4), as well as the fibre production (Tier 3) and fabric manufacturing (Tier 2) nodes, more than half of the tiers’ market capitalisation is concentrated among corporates, in the form of holding companies or larger conglomerates – see Figure 3.

Figure 3: Investor types in Raw Material Manufacturing (left), Fibre Production (centre) and Fabric Manufacturing (right) by % holding (Source: Refinitiv & Planet Tracker)
In these early value chain stages (Tiers 4, 3 and 2), larger institutional investors and asset managers (represented above in light grey) tend to hold between a quarter (for raw material manufacturing) or a sixth (in the case of fibre production and fabric manufacturing) of all market capitalisation. This relatively smaller weighting to institutional investors is an important consideration when considering the level of direct engagement such investors can have to drive changes in the environmental conduct of upstream operations.

In Figures 4 to 6 we show the Top 10 equity holders for each of Tier 4, Tier 3 and Tier 2.

**Figure 4:** Top 10 Global Ultimate Investors in Raw Material Manufacturing (Tier 4) by % holding among all Equity investments within value chain node (Source: Refinitiv & Planet Tracker)

**Figure 5:** Top 10 Global Ultimate Investors in Fibre Production (Tier 3) by % holding among all Equity investments within value chain node (Source: Refinitiv & Planet Tracker)
The major equity holder type changes significantly when switching focus onto Tier 1 and Tier 0 of the value chain, namely apparel & garments producers and retailers. Here, large institutional investors become a much more significant part of the overall shareholding.

For the retail node (Tier 0), the large institutional investors are just edged out as the most significant holders by a few large family holdings, as in the case of LVMH’s Arnault family, the eponymous Hermes family and Inditex’s Ortega family – see Figure 7.
Looking at the Top 10 holders for apparel and garments producers in Figure 8, a quartet of large US asset managers comprising BlackRock, Vanguard, Fidelity and State Street (via their asset management arm, SSGA), make up over a fifth of all market capitalisation. Overall, within the same tier, Asset Managers hold around two thirds of all market capitalisation.

Our previous work showed that the retail node is the largest by market capitalisation at 63% of the total universe.

Looking at the Top 10 for equity ownership, we see the same institutional investors as for apparel and garment producers as dominant players, but family owners being the most significant portion – see Figure 9. It is worth noting that the importance of these family holdings should not be overstated when considering the textile industry as a whole. Whilst they are significant in value terms, they are typically holdings in one major corporate and thus their ability to affect industry-wide change is perhaps overstated if considered on a purely value basis.
If we examine the geographic location of the major investors (defined as those countries where investors are headquartered), those in Tiers 2, 3 & 4 tend to be concentrated in Asia, with Chinese investors holding the lion's share of operations. Our analysis shows Chinese domiciled investors holding over 40% of equity capital in each of the three earlier value chain stages. Comparatively, US based shareholders, in the form of large institutional investors, usually control less than 10%, with the exception of raw material manufacturing, where they hold around 15% of shares in our universe. Other significant investors’ geographies for Tiers 4, 3 and 2 are India, Taiwan and Turkey – see Figure 10.

The importance of China as the location of investor domicile contrasts with the importance of Italy as typically the most common location of corporate domicile for these tiers, as shown in our earlier Following the Thread report. We interpret this pattern as evidence that many of the Italian companies are in private hands, while entities domiciled in Asia operating in the same nodes tend to be larger scale and are listed on local equity markets.
Within all the upstream stages of the textiles value chain, India is home to 30% or more of the entities that are public, rising to 40% in the case of fibre producers, as evidenced in figures 11 and 12 below.

<table>
<thead>
<tr>
<th>Rank</th>
<th>Corporate Country</th>
<th>Share of Companies</th>
<th>Fibres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>India</td>
<td>40.0%</td>
<td>202</td>
</tr>
<tr>
<td>2</td>
<td>China</td>
<td>13.7%</td>
<td>69</td>
</tr>
<tr>
<td>3</td>
<td>Pakistan</td>
<td>9.9%</td>
<td>50</td>
</tr>
<tr>
<td>4</td>
<td>Taiwan</td>
<td>6.3%</td>
<td>32</td>
</tr>
<tr>
<td>5</td>
<td>Bangladesh</td>
<td>5.0%</td>
<td>25</td>
</tr>
</tbody>
</table>

**Figure 11: Top 5 company locations for Fibre producers**  
(Source: Refinitiv & Planet Tracker)

<table>
<thead>
<tr>
<th>Rank</th>
<th>Corporate Country</th>
<th>Share of Companies</th>
<th>Fibres</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>India</td>
<td>33.2%</td>
<td>176</td>
</tr>
<tr>
<td>2</td>
<td>China</td>
<td>11.7%</td>
<td>62</td>
</tr>
<tr>
<td>3</td>
<td>Pakistan</td>
<td>10.6%</td>
<td>56</td>
</tr>
<tr>
<td>4</td>
<td>Taiwan</td>
<td>6.2%</td>
<td>33</td>
</tr>
<tr>
<td>5</td>
<td>Bangladesh</td>
<td>6.0%</td>
<td>32</td>
</tr>
</tbody>
</table>

**Figure 12: Top 5 company locations for Fabric manufacturers**  
(Source: Refinitiv & Planet Tracker)

What the above suggests is therefore that most Indian entities tend to be on the lower end of the capitalisation scale, with most of the equity value being held in a smaller number of more richly capitalised Chinese firms.

There is a change in investors’ geographic location at Tier 1 and Tier 0 relative to upstream tiers. The location of investor incorporation is now weighted towards the developed west, with United States-based investors holding over half, in the case of apparel and garments producers, and just over a third of market capitalisation in retailers (with another third driven by the large French family holdings) - see Figure 13 below.
Figure 13: Investor locations of incorporation for Apparel and Garment Producers (left) and Retailers (right) by % holding (Source: Refinitiv & Planet Tracker)
Bond Ownership

Key points:

- Data on bond financing is patchy
- Bond financing is particularly small relative to equity financing for tier 0 (retailers) at only 1% of the value

Before delving into the main findings on bond ownership, it is important to note that any ownership analysis focused on bond holdings faces more significant hurdles compared to equity holdings. This is typically because disclosures on bonds do not have the same transparency requirements that equity shareholding reporting has. Given this, we believe that the summary numbers we show are likely to be a significant understatement relative to any real exposures. They will also typically have a bias towards developed market participants.

On top of the above caveats, it is also important to note that the values gathered are bonds’ nominal values, in other words the original values at which those bonds were issued. Such values do not fluctuate, unlike market-valued equity holdings, which change daily based on investor sentiment and corporate performance.

Due to the previously mentioned lack of available data, Bond ownership results for Tiers 2, 3 & 4 are particularly patchy and therefore we believe cannot be used to draw any meaningful conclusions.

Bond ownership within the apparel & garment node (Tier 1) is dominated by US-based fixed income investors, with fund management heavyweights BlackRock and Vanguard leading, holding a combined approximate 14% - see Figure 14.

Figure 14: Top 10 Global Ultimate Investors in Apparel & Garment Production by % holding among all Bond holdings within value chain node (Source: Refinitiv & Planet Tracker)
Looking at the retail node (Tier 0), the overall value of bond holdings captured for the retail node represents only around 1% of the equity market capitalisation for the same node.

Analysis of the main owners of the debt shows BlackRock and Vanguard as the top two holders – see Figure 15. Consequently, the United States comes out on top as the prime debt investors’ location for fashion retailers.

**Figure 15:** Top 10 Global Ultimate Investors in Retailers by % holding among all Bond holdings within value chain node (Source: Refinitiv & Planet Tracker)
Financing & Underwriting

Key points:

- Tier 4, Tier 3 and Tier 2 rely less on short-term loans than Tier 1 or Tier 0
- Underwriters to the upstream tiers tend to be domiciled in China and, to a lesser extent, Japan. Underwriters to Tier 1 and Tier 0 tend to be domiciled in the United States

The financing and underwriting analysis provides an overview of the source of funding received in the last 10 years by the various players in each of the value chain stages. While lenders’ funding and/or facilitation can take various arrangements, this analysis provides three main forms: equity offering underwriting, bond underwriting and syndicated loans provision. Equity offerings are usually a few orders of magnitude smaller than bond underwriting, even more so when compared to loans, which are generally the quickest and most flexible form of financing for a corporation.

Looking at Tiers 2, 3 & 4, with the exception of bond underwriting for raw material manufacturers, there is a fairly even split of funding source across all three nodes – see Figure 16. Notably when compared to Tiers 0 & 1 (Figure 18), there is a lower reliance on loans.

![Figure 16: Funding split in Raw Material Manufacturing (left), Fibre Production (centre) and Fabric Manufacturing (right). Yellow represents Loans, Red stands for Bonds, while Grey relates to Equity Offerings (Source: Refinitiv & Planet Tracker)](image)

This may tally with the suggestion we have heard from supply chain actors that entities at these nodes sometimes struggle to raise financing from international banks due to concerns over risk and the challenge of performing due diligence.

Looking at where the providers of financing are domiciled for these nodes – see Figure 17 - lenders headquartered in either China, and to a lesser extent Japan, represent the lion’s share of funding for the three upstream segments, having provided a third of all funding for raw material manufacturers and as much as 40% of funds for fibre producers and fabric manufacturers in the last 10 years.
Among these, CITIC Securities and Guosen Securities are consistently amongst the top 10 lenders, together with the Japanese giants Mitsubishi UFJ, Mizuho Financial Group and Sumitomo Mitsui. This pattern is clear despite poor transparency levels often hampering analysis, with several deals not disclosed by any participants.

Similarly to what was found in the equity ownership analysis, the narrative very much changes when looking at the downstream stages of the textiles value chain (Tier 1 and Tier 0) – see Figure 18. Larger tranches of funding are underwritten by major developed markets lenders, mostly headquartered in the United States. The funding takes the form of syndicated loans for the most part.
Overall, in both Tiers 0 & 1, the position of top three underwriters is held by JP Morgan, Bank of America and HSBC. The top 3 position for these investors also holds in both syndicated loans provision and bond offering. – see Figures 19 and 20.

The situation changes slightly when focusing on equity offerings. Within apparel & garments producers, the Swiss giant UBS takes the leading spot, while for retailers, Goldman Sachs leads the chart.
CONCLUSION

Our analysis of the funders of different stages of the textile supply chain has revealed some interesting findings.

The most important equity holding entities vary across the stages of the supply chain. For Tier 4, Tier 3 and Tier 2, more than half of the market capitalisation is concentrated among corporates, in the form of holding companies or larger conglomerates. These are the Tiers most closely associated with much of the negative impact of the supply chain. It is concerning that the major investor type in these nodes is likely less amenable to external pressure than institutional investors, who have their customers and regulators to respond to.

With major institutional investors the most significant equity funders of Tiers 1 & 0 (excluding family interests), it is important for them to push their holdings to work with their supply chain partners on driving the transition to a just, sustainable textile industry. They can do so by adjusting the way they support the funding needs of retailers and apparel manufacturers. By facilitating the trickling down of a sustainable agenda via proxy voting, investment decisions and a link to sustainable executive compensation (see our report Textiles Remuneration), investors can drive brands to take ownership of the environmental concerns residing within their industry, as well as the upstream stages of the textiles value chain.

Support for the provision of capital is especially needed in those areas where lenders and underwriters have typically been less active – the upstream sections of the textiles value chain (this may be shown by the relative underrepresentation of loan underwriting as a source of funding). Lenders could use deal terms such as sustainability covenants to influence the adoption and consolidation of greener practices by these corporates. Our previous work has shown that relatively small levels of investment in the upstream supply chain can drive significant improvements in environmental impacts whilst also having a short payback period (see our report – Easy (Un)Pickings).
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ABOUT PLANET TRACKER

Planet Tracker is a non-profit financial think tank producing analytics and reports to align capital markets with planetary boundaries. Our mission is to create significant and irreversible transformation of global financial activities by 2030. By informing, enabling and mobilising the transformative power of capital markets we aim to deliver a financial system that is fully aligned with a net-zero, nature-positive economy. Planet Tracker proactively engages with financial institutions to drive change in their investment strategies. We ensure they know exactly what risk is built into their investments and identify opportunities from funding the systems transformations we advocate.

TEXTILES TRACKER

Textiles Tracker investigates the impact that financial institutions have in funding companies across the Textiles, Apparel & Clothing sector. Fast Fashion has created cheap and abundant clothing globally, but the natural capital cost has been high, with toxic production practices, degradation of natural resources, massive and growing waste as well as labour injustice. By providing information and analysis on these problems, placing a value on them and quantifying the negative impact on profits and investor returns from current practices and the potential benefits and opportunities from changes Textiles Tracker will support and stimulate a transition to greater sustainability in the industry. Textiles Tracker identifies the nodes in the textiles supply chain that are creating the greatest damage, analyses their financial value, provides transparency of ownership and, through owners and investors, pressures for change in industry practices.

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WITH THANKS TO OUR FUNDER

H&M FOUNDATION
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