Global Supply Chain Report

Summary

Electric Vehicle

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Apparel

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Threading a Green and Intelligent Tapestry

The Apparel Supply Chain Landscape in a Turbulent World

Executive Summary

Apparel is an essential commodity and a key value-creating sector of the global economy. The apparel market size is estimated at US$1.8 trillion in 2024 and is expected to reach US$2.0 trillion by 2029. Apparel supply chains are among the world's most globalized, spanning raw material producers, ginners, spinners, weavers, dyers, designers, and garment manufacturers, before reaching consumers via wholesalers, retailers, and e-commerce platforms. It is estimated that approximately 430 million workers are employed globally in fashion, clothing, and textile production.

This study examines the current state of the global apparel supply chain and projects future trends. We identify the locations of major players, including apparel retailers, apparel suppliers, textile suppliers, raw textile material suppliers, and apparel and textile machinery suppliers. We explore the key factors shaping the future development of the chain and project the dominant trends in the coming years.

At present, the US and China are the world's two largest apparel consumers, while the EU and the US are the two largest apparel importers. Asia dominates global clothing and textile exports, with China, Bangladesh, Vietnam, Turkey, and India ranking among the top 10 global clothing exporters and collectively accounting for nearly half of the world's clothing exports. Six Asian countries—China, India, Turkey, Vietnam, Pakistan, and South Korea—are among the top ten textile exporters, contributing to two-thirds of the world's textile exports.

Raw textile material suppliers are widely distributed across the Americas, Oceania, Asia, and Europe. The top five positions are consistently held by the US, Australia, China, Brazil, and India, with the US being the unshakable leader. Notably, Brazil has shown steady growth in raw textile material exports and rose from its usual fourth place to second in 2024.

In the high-tech apparel and textile machinery segment, China is the leading supplier, accounting for about 35% of global exports. Other major machinery suppliers are developed countries, with Germany, Japan, Italy, and South Korea completing the top five.

Our analysis therefore demonstrates that China is the dominant force in the current global apparel supply chain, leading in three of its four key segments. It is the world's top exporter of clothing, textiles, and apparel and textile machinery, and ranks fourth in raw textile material exports. Additionally, China is a major apparel consumer market, although it remains largely self-sufficient thanks to its extensive production capacity. This dominant position is supported by its well-developed infrastructure, skilled labour force, and vertically integrated supply chain, which continue to make the country a critical player despite increasing global diversification efforts.

The apparel supply chain is largely cost-driven, with production costs playing a crucial role in determining manufacturing locations. Today, the industry faces mounting challenges from an increasingly uncertain environment. This report identifies several key forces shaping apparel supply chains: recurring shocks such as regional conflicts and pandemics are prompting a shift towards 'just in case' supply chain strategies, while escalating great power competition —particularly between China and the US—is driving further diversification away from China. Affordable and efficient labour continues to sustain developing Asia as a leading manufacturing centre, while technological breakthroughs in artificial intelligence (AI), 3D printing, robotics, biomaterials, and digitalization are revolutionizing the industry and its global supply chains. Rising trade protectionism is counterbalanced by regional free trade agreements such as the Regional Comprehensive Economic Partnership (RCEP), which fosters integration and optimization of Asian apparel supply chains, especially between China and ASEAN member states. Domestic regulations and policies in sourcing countries are strengthening the competitiveness and export performance of their apparel industries. Last but not least, sustainability remains a prominent global concern, drawing increasing attention from apparel consumers and lawmakers, pressing all apparel practitioners to put ESG considerations on their agenda.

In the coming year, we anticipate that a more complex sourcing environment and worsening global geopolitical conditions will compel an increasing number of apparel companies and apparel retailers to adopt a sourcing diversification strategy. Such a strategy will balance cost, quality, product lead times and compliance, while also allowing for quick adaptation to market uncertainties and achieving supply chain flexibility and resilience. Our analysis shows that China's export share has only decreased in the final segment of the apparel supply chain—apparel manufacturing—dropping from a peak of 40% in 2013 to the current 30%. Meanwhile, its exports share in each of the other three segments—textiles, raw materials, and machinery—has increased. In apparel manufacturing, Poland, Mexico, and Pakistan recorded the highest share increases in export share from 2018 to 2023, but none surpassed 2.5% of the global total as of 2023. Bangladesh and Vietnam, the top apparel exporters in Asia, saw their export shares increase over the ten-year period from 2013 to 2023, yet both experienced a decline from 2018 to 2023, indicating a recent slowdown in the shift of

apparel production to Asian countries. This evidence suggests that while diversification is underway, the process will be gradual and prolonged. In the near future, China will remain a pivotal player in the apparel supply chain, and will evolve from a direct apparel exporter to the US and EU markets to become a key provider of intermediate components and a major investor in other apparel manufacturing bases. At the same time, Southeast and South Asian economies are becoming increasingly important as apparel sourcing bases.

Our analysis also shows that, despite extensive media coverage, onshoring and nearshoring in the apparel supply chain are advancing more slowly than anticipated. While nearshore apparel production bases for the US market, including Mexico and CAFTA-DR countries, are progressing well, they face potential setbacks due to erratic and indiscriminate tariff policies implemented by the current US administration. For the European apparel market—defined here as Europe-5, comprising France, Germany, Italy, Spain, and the UK—we find a diverse sourcing strategy that includes onshore (Western and Southern European countries), nearshore, and other global locations, with Asian countries, particularly China, serving as the dominant suppliers across all four segments of Europe-5's apparel supply chain. Onshore sources remain important, while Turkey continues to be the largest nearshore supplier due to its geographic proximity and regulatory alignment. However, Turkey's share in Europe-5's textile and clothing imports has stagnated in recent years, primarily due to its unstable domestic economy. Poland, Austria, Czechia, and Morocco also rank among Europe-5's top nearshore suppliers, but their market shares remain too small to gain significance.

New technologies will continue to play a crucial role in shaping the future of the apparel industry, with AI, manufacturing automation, and innovative fabrics as the key drivers. The potential for widespread AI application in the apparel supply chain became more evident in 2025, driven by significant advancements in generative AI, which enables seamless integration into operations, convincing managers that AI has matured enough to enhance productivity and profitability. Industry experts highlight that the rapid development and maturation of AI technologies are also creating a growing urgency across the sector to adopt AI solutions quickly.

Both developed and developing countries recognize the importance of automating textile and apparel manufacturing to maintain competitiveness and ensure high-quality production in an evolving market. Therefore, automated machinery will increasingly replace manual processes in textile and apparel manufacturing in the coming years. Rapid advancements in Chinese textile machinery, combined with global investments by Chinese apparel firms, further facilitate automation adoption.

Growing consumer demand for sustainable, high-performance, and athleisure apparel has driven explosive innovations in functional fabrics. Advanced materials such as moisture-wicking, thermal, and smart fabrics embedded with health-monitoring sensors, alongside eco-friendly options like recycled textiles and biodegradable fibres, enhance apparel performance while reducing environmental impact and reliance on traditional raw materials. Innovative dyeing technologies further support sustainability by substantially reducing water usage. Despite high costs and slow industry adoption, significant investments since the 2020s suggest that breakthroughs in next-generation materials may soon reshape apparel sourcing and production.

Despite ongoing geopolitical and economic challenges, global commitment to ESG principles remains strong and steadily shifts towards more practical and action-oriented approaches. The EU continues to lead in formalizing, regulating, and operationalizing ESG, through initiatives such as its newly unveiled Digital Product Passport, which exemplifies a pragmatic step towards simplifying and optimizing ESG compliance across the entire supply chain. China, as a dominant player, is assuming greater responsibilities in ESG efforts. The Chinese apparel sector has been moving aggressively towards the country's 'dual carbon' goals—peaking carbon dioxide emissions by 2030 and achieving carbon neutrality by 2060—by substantially reducing their domestic carbon footprint while forging partnerships with key apparel manufacturing countries in Asia and Africa to promote sustainability, fair labour practices, and gender equality throughout the global apparel supply chain.

We hope this analysis encourages apparel industry players to embrace diversified sourcing, technological innovations, and ESG principles to create a resilient, intelligent, and sustainable global supply chain capable of adapting to an unpredictable world.

Contents

I. Introduction

An apparel supply chain is usually long and complex, spanning multiple countries, businesses, distributors, and suppliers. It begins with raw material producers, progressing through ginners, spinners, dyers, designers and garment manufacturers, before reaching consumers via traders, importers, wholesalers, retailers, and e-commerce platforms. It is one of the most globalized supply chains travelling thousands of miles and supporting tens of millions of jobs. It is estimated that approximately 430 million people work in fashion, clothing, and textile production globally.[1]

Using comprehensive and reliable statistics, we map the locations of key players—apparel retailers, suppliers, textile providers, raw material producers, and machinery suppliers—and track their shifts. Through rigorous desktop research, interviews with industry leaders and experts from leading apparel sourcing and manufacturing firms, and extensive brainstorming sessions and workshops, we analyze the critical factors shaping the supply chain's future and forecast prevailing trends for the coming years.

The remaining part of this report is organized as follows: Section II lists the key apparel markets in the world. Section III identifies the locations of major players in the global apparel supply chain, including apparel retailers, apparel suppliers, textile suppliers, raw textile material suppliers, and apparel and textile machinery suppliers. Section IV examines the key driving forces shaping the global apparel supply chain and projects five trends along its development trajectory. Section V provides a conclusion.

II. Key Apparel Markets

1. Key apparel consumption markets

Table 1 shows the world's leading apparel markets in 2024. The US was the world's largest apparel market in terms of sales revenue, contributing US$358.7 billion, or 20.0% of the world's total apparel sales in 2024. It was closely followed by China with US$328.5 billion, or 18.4% of the world's total sales in the same year.

The table also shows that, in additional to the US and China, important apparel consumption markets also included India, Japan, the UK, Germany, Italy, Canada, France, and South Korea. Together, these 10 countries accounted for approximately 70% of the world's apparel consumption in 2024.

[1] Sky Ariella, "28 Dazzling Fashion Industry Statistics," Zippia, June 15, 2023, https://www.zippia.com/advice/fashion-industry-statistics/.

Table 1: World leading apparel markets, 2024

	Apparel sales revenue (US$ billion)	Share of world total
World	1,789.2	
US	358.7	20.0%
China	328.5	18.4%
India	105.5	5.9%
Japan	89.9	5.0%
UK	85.9	4.8%
Germany	73.6	4.1%
Italy	58.2	3.3%
Canada	40.8	2.3%
France	40.7	2.3%
South Korea	39.4	2.2%
Top ten total	**1,221.0**	**68.2%**

Source: Statista.

2. Key apparel import markets

Apparel importers are the driving force behind the highly internationalized apparel supply chains. Developed economies are the world's major apparel import markets. Table 2 shows the world's top apparel importers in 2023. It shows that the US was the largest single-country importer, with apparel imports valued at US$89.3 billion, accounting for 14.8% of the world's apparel imports in 2023. Seven out of the 10 largest apparel importing countries were located in Europe. The table also shows that the EU, taken as a whole, was the largest apparel import market, with imports totalling US$204.1 billion and accounting for 33.9% of global apparel imports in 2023. Japan and South Korea were the only two Asian countries among the top 10 apparel importers that year.

Table 2: Top 10 apparel importers in 2023

	Apparel import value (US$ mn)	Share of world total
World	***602,851***	
European Union	*204,149*	*33.9%*
US	89,348	14.8%
Germany	44,455	7.4%
France	27,490	4.6%
Japan	25,619	4.2%
Spain	21,607	3.6%
UK	21,403	3.6%
Italy	20,821	3.5%
Netherlands	19,987	3.3%
Poland	14,223	2.4%
South Korea	12,810	2.1%

Source: WTO STATS; HKUST Li & Fung Supply Chain Institute analysis.

III. Global Apparel Supply Chain: Present Landscape

1. Apparel retailers

Apparel retailers connect directly with the consumers and represent the final, yet crucial, segment of the apparel supply chain. Many leading apparel retailers own multiple brands, engage in product design and, in some cases, manufacturing, conduct R&D, strengthen online and offline marketing efforts, and pursue mergers and acquisitions to expand their reach.

Major traditional apparel retailers are concentrated in Europe and the US. The world's leading apparel companies include LVMH, TJX, Nike, Inditex, Adidas, H&M, Fast Retailing, Ross Stores, and Kering, as shown in Table 3 below.

It is noteworthy that the rapid development of the internet and e-commerce has led to the rise of online apparel retailers. E-commerce-based apparel retailers such as ASOS, Boohoo, and Shein are staying ahead of fashion trends and leveraging technology to enhance the customer shopping experience. They offer a wide range of affordable clothing, footwear, and accessories, featuring both their own labels and third-party brands and catering to young and fashion-conscious consumers worldwide. It is reported that the share of global online apparel sales reached 33% in 2024 and is expected to rise to 40% of total apparel sales by 2030.[2]

[2] "Apparel – Worldwide," Statista, most recent update October 2025, https://www.statista.com/outlook/cmo/apparel/worldwide?currency=USD.

Shein, the world's largest online apparel retailer, is based in China. In 2024, Shein's gross merchandise value reached US$38.0 billion[3], surpassing Adidas (US$25.6 billion) and ranking it fifth among all apparel retailers globally, only behind LVMH (US$91.6 billion), TJX (US$56.4 billion), Nike (US$47.9, and Inditex (US$41.6 billion).

Table 3: Top 10 apparel retailers, April 2024-April 2025

Company	Sales (US$ billion)
LVMH	91.6
TJX	56.4
Nike	47.9
Inditex	41.6
Adidas	25.6
Richemont	22.2
H&M	22.2
Fast Retailing	21.6
Ross Stores	21.1
Kering	18.6

Note:
1. Richemont has brands that produce apparel, such as Chloé and Dunhill, but its core focus is more on high-end luxury goods like jewellery, watches and accessories rather than fashion clothing in the traditional sense.
2. Based on sales during the 12-month period to April 25, 2025.
Source: Forbes, "Sales of the leading apparel and accessories companies worldwide in 2024/25 (in billion U.S. dollars) [Graph]", Statista, June 12, 2025, www.statista.com

2. Location of key apparel suppliers

Clothing manufacturers transform fabrics into finished garments, typically commissioned by retailers, fashion brands or their agents. This manufacturing stage is a key part of the global apparel supply chain.

While leading apparel brands are predominantly based in Europe or North America, the majority of manufacturing takes place in developing Asia, where production costs are lower and efficiency is relatively high. Table 4 presents the world's 10 largest apparel exporters in 2023. China was the leading apparel exporter in the year, accounting for over one-third of global apparel exports. Four other Asian exporters in the top 10—Bangladesh, Vietnam, Turkey, and India—collectively accounted for nearly one-fifth of global apparel exports. The EU as a whole contributed nearly one-third of global apparel exports, with Italy, Germany, the Netherlands, France, and Spain serving as its leading exporters.

[3] "E-commerce net sales of shein.com from 2018 to 2024," Statista, July 18, 2025, https://www.statista.com/forecasts/1560804/shein-revenue-development-ecommercedb.

Table 4: Top 10 apparel exporters, 2023

	Apparel export value (US$ mn)	Share of world total
World	***548,046***	
China	164,743	30.1%
European Union	*162,529*	*29.7%*
Bangladesh	35,887	6.5%
Vietnam	31,039	5.7%
Italy	30,268	5.5%
Germany	29,704	5.4%
Turkey	18,729	3.4%
Netherlands	17,569	3.2%
France	16,853	3.1%
India	15,366	2.8%
Spain	15,343	2.8%

Note: Apparel refers to the commodity group of apparel and clothing accessories under SITC category 84.
Source: WTO STATS4; HKUST Li & Fung Supply Chain Institute analysis.

3. Location of key textile suppliers

Textile manufacturing is a critical foundation for apparel making. Textile companies create yarn from raw materials and turn yarn into fabrics for apparel manufacturing companies.[5]

Table 5 presents the top textile exporters in the world in 2023. China was the largest textile supplier, accounting for over 40% of global textile exports. Regionally, Asia was the leading supplier, with six economies, i.e. China, India, Turkey, Vietnam, Pakistan, and South Korea, collectively accounting for two-thirds of global textile exports in 2023. The EU was the second-largest exporting region, contributing over 20% of the global total. Germany and Italy were the two largest EU textile exporters. The US also ranked among the top textile exporters, placing fifth in 2023.

[4] Bangladesh, a key apparel exporter in the world, has no export data in the UN Comtrade database, so WTO STATS is used instead.

[5] "Everything about the (traditional) supply chain and the core players of fashion industry," FashionUnited International, October 20, 2022. https://fashionunited.com.

Table 5: World top 10 textile exporters in 2023

	Textile export value (US$ mn)	Share of world total
World	**324,084**	
China	134,336	41.5%
European Union	*70,423*	*21.7%*
India	18,042	5.6%
Germany	13,988	4.3%
Turkey	13,266	4.1%
US	12,398	3.8%
Italy	12,147	3.7%
Vietnam	11,032	3.4%
Pakistan	8,205	2.5%
South Korea	6,973	2.2%
Netherlands	6,784	2.1%

Note: Textile refers to the commodity group of textile yarn and related products under SITC category 65.
Source: WTO STATS; HKUST Li & Fung Supply Chain Institute.

4. Location of key suppliers of raw textile materials

Raw textile materials include both natural fibres like silk, cotton, jute, and wool, and synthetic fibres like polyester, nylon, and acrylic. In 2023, the worldwide production was about 124.5 million metric tons, with polyester accounting for 57% and cotton ranking second with 20%.[6] Raw material producers, wholesalers, and retailers are the upstream players in the apparel supply chain.[7]

Table 6 shows the top 10 raw textile material exporters in 2023 and 2024. Suppliers of raw textile materials are widely distributed across the Americas, Oceania, Asia, and Europe. The US is the largest raw textile material exporter, accounting for nearly 20% of the world's total.

A bright spot in this segment is Brazil, whose exports of raw textile materials jumped by 65% year-on-year in 2024, surpassing Australia and China to reclaim the position of second-largest raw material exporter—a position it last held in 2020. Its share in global raw textile material exports nearly doubled from 7% in 2023 to 14% in 2024. Brazil's remarkable performance in this sector is mainly driven by the expansion of its cotton exports. According to the US Department of Agriculture, Brazil surpassed the US as the world's largest cotton

[6] "Distribution of textile fibres production worldwide in 2023, by type [Graph]," Statista, accessed November 20, 2025, https://www.statista.com/statistics/1250812/global-fiber-production-share-type/.
[7] "Everything about the (traditional) supply chain and the core players of fashion industry," FashionUnited International, October 20, 2022. https://fashionunited.com.

exporter in the 2023/24 marketing year[8] (August 2023-July 2024).[9] Data from the Observatory of Economic Complexity shows that Brazil exported US$5.2 billion worth of raw cotton in 2024, with China as the top destination (US$1.7 billion), followed by Vietnam (US$1.0 billion).[10]

Table 6: Top 10 exporters of raw textile materials in 2023 and 2024

	2023		2024	
	Export value (US$ mn)	Share of world total	Export value (US$ mn)	Share of world total
World	***43,065***		***38,434***	
US	8,253	19.2%	7,223	18.8%
Brazil	3,202	7.4%	5,286	13.8%
Australia	4,951	11.5%	4,291	11.2%
China	4,506	10.5%	4,056	10.6%
India	1,774	4.1%	1,969	5.1%
South Korea	1,520	3.5%	1,428	3.7%
France	1,128	2.6%	1,313	3.4%
Belgium	1,346	3.1%	1,282	3.3%
Thailand	1,069	2.5%	1,108	2.9%
Turkey	996	2.3%	909	2.4%

Note:

1. Raw textile materials refer to the commodity group of textile fibres under the SITC category 26.
2. Ranked in 2024 value.
3. Statistics for some economies in this category in 2024 are not available, but these do not include the largest exporters in the category.

Source: UN Comtrade Database; HKUST Li & Fung Supply Chain Institute analysis.

5. Location of key suppliers of apparel and textile machinery

Apparel and textile machinery encompasses a wide range of equipment used in the production of textiles and apparel. It supports the entire apparel supply chain and is vital for enhancing the efficiency, quality, and sustainability of apparel production.

Table 7 lists the top 10 exporters of apparel and textile machinery in 2023 and 2024. China is the largest apparel and textile machinery supplier, with its share continuing to increase – from 28.3% in 2023 to 35.1% in 2024.

[8] A marketing year refers to the period during which a crop is harvested, marketed, and sold. (see Andrew Sowell, "Wheat Data – Documentation," Economic Research Service, US Department of Agriculture, https://www.ers.usda.gov/data-products/wheat-data/documentation).

[9] "Brazil: Cotton and Products Update," USDA, September 5, 2024. https://www.fas.usda.gov/data/brazil-cotton-and-products-update-16.

[10] "Raw Cotton in Brazil," The Observatory of Economic Complexity, accessed November 20, 2025, https://oec.world/en/profile/bilateral-product/raw-cotton/reporter/bra.

Table 7 also shows that, in this segment of the global apparel supply chain, developed countries remain key players alongside China, with Germany, Japan, Italy, and South Korea comprising the rest of the top five.

Table 7: Top 10 exporters of apparel and textile machinery in 2023 and 2024

	2023		2024	
	Export value (US$ mn)	**Share of world total**	**Export value (US$ mn)**	**Share of world total**
World	**31,727**		**27,561**	
China	8,976	28.3%	9,684	35.1%
Germany	3,785	11.9%	2,923	10.6%
Japan	2,568	8.1%	2,022	7.3%
Italy	2,318	7.3%	2,113	7.7%
South Korea	1,822	5.7%	1,799	6.5%
US	1,206	3.8%	1,056	3.8%
Vietnam	1,107	3.5%	-	-
Mexico	1,092	3.4%	614	2.2%
Thailand	985	3.1%	1,224	4.4%
India	802	2.5%	603	2.2%

Note:

1. Apparel and textile machinery refers to the commodity groups of textile and leather machinery and parts under SITC categories 7243-7247 and 7249.

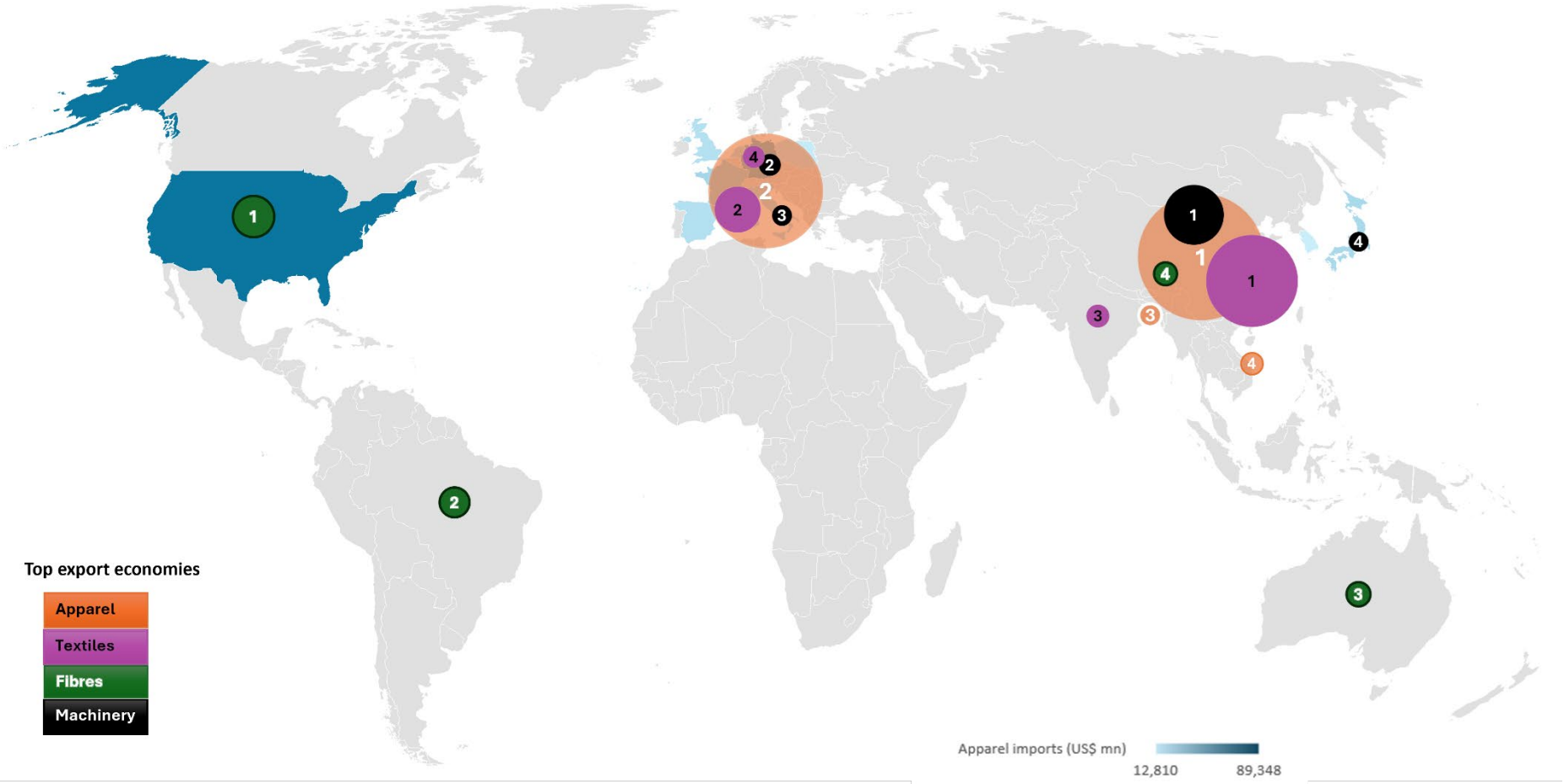
2. Ranked in 2023 value as not all top economies' statistics are available in 2024.

Source: UN Comtrade Database; HKUST Li & Fung Supply Chain Institute analysis

The analysis in this section demonstrates that China is the dominant force in the current global apparel supply chain, leading in three of its four key segments. It is the world's top exporter of clothing, textiles, and apparel and textile machinery, and ranks fourth in raw textile material exports. This dominant position is supported by its well-developed infrastructure, skilled labour force, and vertically integrated supply chain, which continue to make the country a critical player despite increasing global diversification efforts.

Map 1 illustrates the overall locations of top suppliers along the global apparel supply chain.

Map 1. Locations of top suppliers along the global apparel supply chain



Note:

1. Numbers indicate ranks by export value within each apparel segment.
2. Both the EU as a whole and individual EU countries in the top ranks of each apparel segment are marked on the map.

IV. Global Apparel Supply Chain of the Future

The apparel supply chain is highly cost-driven, with retailers and fashion brands searching globally for cost-effective manufacturing bases. In recent years, it has faced an additional layer of challenges in an environment fraught with regional conflicts, global trade frictions, material price volatility, rapidly shifting consumer values and preferences, fast-paced technological advancements, and erratic regulatory changes.

This section first examines the key driving forces shaping the global apparel supply chain, and then projects several trends in its future development.

1. Seven forces shaping the apparel supply chain of the future

Shocks. Shocks have become a recurring theme in recent years from the pandemic outbreak to regional conflicts to trade wars. The biggest shock this year comes from the US, the world's largest consumer market. In April, President Donald Trump unveiled a 'Liberation Day' tariff policy[11] that imposes high rates on nearly all imported goods from 57 economies.[12] In response, China introduced self-protective countermeasures—viewed by the US as defiance—further escalating the trade war between the two nations and destabilizing the global trade system. Tariff negotiations between the US and multiple countries remain ongoing, with ever-changing rates and no fixed durations. These are compounded by other mutually harmful measures from the US and China, such as multimillion-dollar port entry fees on each other's vessels,[13]sending shock waves through the global supply chain and disrupting everything from production bases to end consumers and from ports to shipping companies.

The US Fashion Industry Association's 2025 survey revealed that the Trump Administration's escalating tariffs significantly increased sourcing costs for fashion brands and retailers,

[11] On 2 April 2025, US President Donald Trump declared "Liberation Day," announcing that his administration would impose a 10% tariff on all countries, along with individualized reciprocal tariffs of up to 50% on nations with the largest US trade deficits, and warned of further retaliatory tariffs against countries that attempt to respond in kind. (see "Fact Sheet: President Donald J. Trump Declares National Emergency to Increase our Competitive Edge, Protect our Sovereignty, and Strengthen our National and Economic Security," The White House, April 2, 2025, https://www.whitehouse.gov/fact-sheets/2025/04/fact-sheet-president-donald-j-trump-declares-national-emergency-to-increase-our-competitive-edge-protect-our-sovereignty-and-strengthen-our-national-and-economic-security/.

[12] "Annex 1, Regulating Imports with a Reciprocal Tariff to Rectify Trade Practices that Contribute to Large and Persistent Annual United States Goods Trade Deficits", The White House, April 2, 2025, https://www.whitehouse.gov/presidential-actions/2025/04/regulating-imports-with-a-reciprocal-tariff-to-rectify-trade-practices-that-contribute-to-large-and-persistent-annual-united-states-goods-trade-deficits/.

[13] Based on a US Section 301 probe concluding China's "unfair" dominance in shipbuilding, the Trump administration started on 14 October 2025 to impose port entry fees on China-owned or operated vessels—starting at US$50 per net tonne per voyage, increasing by US$30 annually through 2028—along with similar charges of US$18 per net ton (or US$120 per container) on Chinese-built ships. In response, China, starting on the same date, levies fees of 400 yuan (US$56) per net tonne on US-owned, operated, built, or flagged vessels docking at its ports, rising to 1,120 yuan (US$157) by 2028 and applied to the first five voyages per year, though exempting Chinese-built ships to shield its domestic fleet. Analysts estimate up to US$3.2 billion in added costs for the top 10 container lines by end-2026, including heavy hits to China's COSCO (potentially US$2 billion). These levies were put on hold for one year starting from 10 November 2025 after the two countries leaders, President Donald Trump and President Xi Jinping met in Busan, South Korea on 30 October 2025.

squeezed profit margins, and led to higher consumer prices. Due to the increased tariffs, half of the respondents reported declining sales, and over one-fifth had already laid off employees. Many firms delayed or cancelled orders, or asked vendors to share tariff burden, creating ripple effects across apparel supply chains. Many suppliers halted new investments given the huge uncertainty ahead, while some struggled to stay in business.[14]

Relentless shocks require apparel supply managers to move beyond reactive measures to design supply chains that not only absorb disruption but improve through it. The real challenge is not avoiding risk, but operationalizing resilience.

Geopolitics: The world is entering a turbulent period where confrontation has replaced cooperation and division has overtaken integration. The China-US trade war, ignited in 2018, has escalated into a multidimensional rivalry, emblematic of broader global tensions. Intensifying economic decoupling, rising protectionism, and strategic competition over technology, critical resources, and alliances are fragmenting the global order into competing economic and ideological blocs. Semiconductor bans and 5G restrictions, financial sanctions on Russia, currency rivalries between stablecoins and China's digital yuan, and clashes over data governance and human rights disrupt innovation, destabilize markets, and fuel fragmented digital ecosystems. Regional military flashpoints—the ongoing Russia-Ukraine war, the elusive path to Middle East peace, and provocations in the South China Sea—disrupt global transport routes, driving price volatility in essential commodities like food, fertilizer, and fuel.

Although apparel is not a primary focus of great power rivalry, its global supply chain—spanning multiple continents and thousands of miles—is inevitably disrupted by escalating geopolitical tensions. Trade barriers, coupled with transport route volatility from regional conflicts, increase costs and risks for apparel supply chains. Consequently, many apparel supply chain managers are adopting precautionary diversification strategies, and shifting purchases away from China given its status as a key suppression target for the US and its allies.

Production costs: Textile and clothing manufacturing remains labour-intensive and therefore labour cost-driven. The availability of a cheap but relatively efficient labour force is the key reason why developing Asia continues to be an apparel manufacturing hub. For example, in 2023, the median monthly base salary for manufacturing workers was US$104 in Bangladesh and US$251 in Vietnam[15], even lower than Mexico's minimum wage of US$315.5 set in January 2023[16]. China is widely recognized as the most efficient apparel producer in the

[14] "2025 Fashion Industry Benchmarking Study," US Fashion Industry Association, July 2025, https://www.usfashionindustry.com/pdf_files/2025/2025_USFIA_Benchmarking_Study.pdf.

[15] "2023 Survey on Business Conditions of Japanese Companies Operating Overseas (Asia and Oceania)," Japan External Trade Organization, November 28, 2023, www.jetro.go.jp.

[16] HKUST Li & Fung Supply Chain Institute analysis.

world, with a median monthly base salary of only US$510 for manufacturing workers,[17] far lower than the US$3,670 in North America.[18] This wage advantage in Asia—rooted in its abundant, cost-effective yet relatively efficient labour force—solidifies its status as the undisputed powerhouse for apparel production.

Technology: Since the invention of the Spinning Jenny sparked the First Industrial Revolution, new technologies have continuously propelled progress in the apparel industry. A new generation of technological breakthroughs in AI, 3D printing, robotics, biomaterials, and digitalization are increasingly being used in apparel design, manufacturing, sales, recycling, and supply chain management, reshaping the apparel industry and its global supply chain.

AI's potential for widespread application in the apparel supply chain has become clearer in 2025, thanks to significant advancements in generative AI. These breakthroughs enable seamless integration into operations, convincing managers that AI has matured enough to enhance productivity and profitability.

FTAs: Free trade agreements and preferential trade arrangements significantly affect apparel manufacturing costs, and, consequently, the global distribution of apparel production bases. The EU's Generalized System of Preference (GSP), the UK's Developing Countries Trading Scheme (DCTS), the US's African Growth and Opportunity Act (AGOA) and the Generalized System of Preferences (currently under renewal discussion) offer substantial benefits to apparel exporters in developing countries, particularly in Asia (e.g., Bangladesh, Vietnam, India) and Africa. Some duty-free schemes under these arrangements are crucial for low-income developing countries to participate in the global apparel supply chain. Amid rising global trade protectionism, regional free trade blocs are flourishing. In January 2022, the Regional Comprehensive Economic Partnership (RCEP) took effect in the Asia-Pacific region, adding another significant piece to the global free trade zone puzzle, alongside the European Union in Europe and the United States-Mexico-Canada Agreement (USMCA) in North America. The RCEP covers nearly all the key apparel manufacturing bases and greatly facilitates the integration and optimization of the apparel supply chain in Asia, especially between China and the ASEAN countries.

Domestic development policies: Sourcing countries are actively taking measures such as improving infrastructure development, offering training programs to workers, and formulating long-term strategies to improve the competitiveness of their apparel industry and spur apparel exports. For example, government support plays a pivotal role in shaping

[17] "2023 Survey on Business Conditions of Japanese Companies Operating Overseas (Asia and Oceania)," Japan External Trade Organization, November 28, 2023, www.jetro.go.jp.

[18] JETRO Survey on Business Conditions for Japanese Companies Operating Overseas (North America), Japan External Trade Organization, /February 2, 2024, https://www.jetro.go.jp

Bangladesh's clothing industry. Since the 1980s, the Bangladeshi government has implemented various favourable policies and incentives, such as infrastructure development initiatives, duty-free import of machinery, tax breaks, low-cost loans, and even direct cash incentives to develop the country's garment sector, making it the world's second-largest clothing exporter today.[19] Vietnam, another clothing manufacturing powerhouse, has unveiled its *Textile and Garment Industry Development Strategy to 2030, Vision to 2035*, outlining detailed policies and measures to develop the textile and garment industry as its main export sector.[20] Meanwhile, Cambodia has decided to build the Funan Techo Canal to improve connectivity among its main ports and reduce transport costs.

Sustainability: As one of the most environmentally impactful sectors and a major employer in developing countries, the apparel supply chain faces intense ESG scrutiny, carrying both significant responsibility and influence in reducing carbon emissions and enhancing workers' welfare. Despite ongoing debates over balancing short-term economic survival with long-term sustainability amid geopolitical and economic challenges, the industry remains steadfast in advancing ESG goals through innovative practices like energy-efficient technologies, renewable energy adoption, cleaner dyeing methods, water recycling, eco-friendly chemicals, and textile recycling to minimize pollution and waste. Employing millions, particularly women in developing nations, the sector is making efforts to ensure fair wages, safe working conditions, and access to healthcare and education while investing in local communities to support livelihoods. By enhancing supply chain transparency through tools like Digital Product Passports (DPP) and traceability systems, the industry is making sustainable practices more operational, establishing sustainability as the standard driven by regulatory pressures, consumer demand, and collaborative initiatives.

2. Five trends in the apparel supply chain

Facing an increasingly complex sourcing environment and a worsening global geopolitical landscape, more apparel companies and apparel retailers are adopting a sourcing diversification strategy, starting with diversification from China. Sourcing diversification ensures maximum flexibility in identifying suitable manufacturers while considering quality, cost, lead time, and other criteria, thereby enabling fashion companies to achieve supply chain resilience.[21] This strategy will remain a key theme in the coming years as many

[19] Mostafiz Uddin, "Bangladesh's Garment Industry: Future growth in a changing world," The Daily Star, February 15, 2024, www.thedailystar.net.

[20] "Vietnam textile and garment industry development strategy to 2030, vision to 2035," Vietnam Textile & Apparel Association, March 30, 2023, www.vietnamtextile.org.vn.

[21] Sheng Lu, "Exploring US Apparel Brands and Retailers' Evolving Sourcing Strategies," December 1, 2023, https://shenglufashion.com.

companies regard it as the most effective way to mitigate various market uncertainties and sourcing risks.[22]

Centred around the sourcing diversification strategy, this analysis discusses in detail three related trends in the global apparel supply chain: the continuous dominance of China and its shifting role, the rise of Southeast and South Asia as new apparel sourcing hubs, and the long road for nearshoring and onshoring to gain significance.

Technology is becoming a more important factor in accelerating the development of the apparel supply chain. The Trump administration's sweeping yet differentially targeted tariffs on imports from numerous countries—for example, Vietnam faced a threatened 46% tariff while Bangladesh faced 37% in April 2025—underscore that low-cost advantages alone are no longer sufficient, as high tariffs can swiftly erode them. In response, the apparel manufacturing sector has intensified its adoption of technologies to enhance productivity and efficiency, with AI emerging as a pivotal new tool. Recent breakthroughs in generative AI and language models have demonstrated real-world potential, convincing managers of AI's maturity to drive profitability. Leading companies are now integrating AI across the supply chain—from product design and lookbook creation to order forecasting, warehousing, and logistics, and all the way to on-site applications such as fabric inspection, colour formulation systems, and hybridization for cultivating raw textile materials—foreshadowing a future where AI standardizes innovation and efficiency industry-wide.

On the other hand, while consumer preferences are volatile, a clear direction is emerging: consumers are showing growing interest in comfortable, functional, and athleisure apparel. They are increasingly prioritizing sustainability, digital shopping experiences, and personalized products as well. This shift will drive a more sustainable, responsive, and technologically advanced global apparel supply chain, fostering innovation in fabric technology and design, and promoting manufacturing automation and more localized and agile production to better align with the values and expectations of modern consumers.

Meanwhile, the sustainability issue has engaged not only brand retailers and consumers but also legislators. Despite several setbacks, global adherence to ESG principles remains steady and is shifting toward a more practical and action-oriented approach. The EU continues to lead by formalizing, regulating, and operationalizing ESG, while China, a dominant player in the apparel value chain, is taking on growing responsibilities in the global ESG landscape.

In light of these factors, we predict that innovation and ESG will continue to be dominant forces driving the global apparel supply chain toward a more innovative, green and

[22] Sheng Lu, "Patterns of US Apparel Imports in 2023 and Critical Sourcing Trends to Watch in 2024," February 12, 2024, https://shenglufashion.com.

sustainable future—shaped not only by suppliers and consumer preferences but also by regional and country policies.

2.1 The dominance and shifting role of China in global apparel supply chain

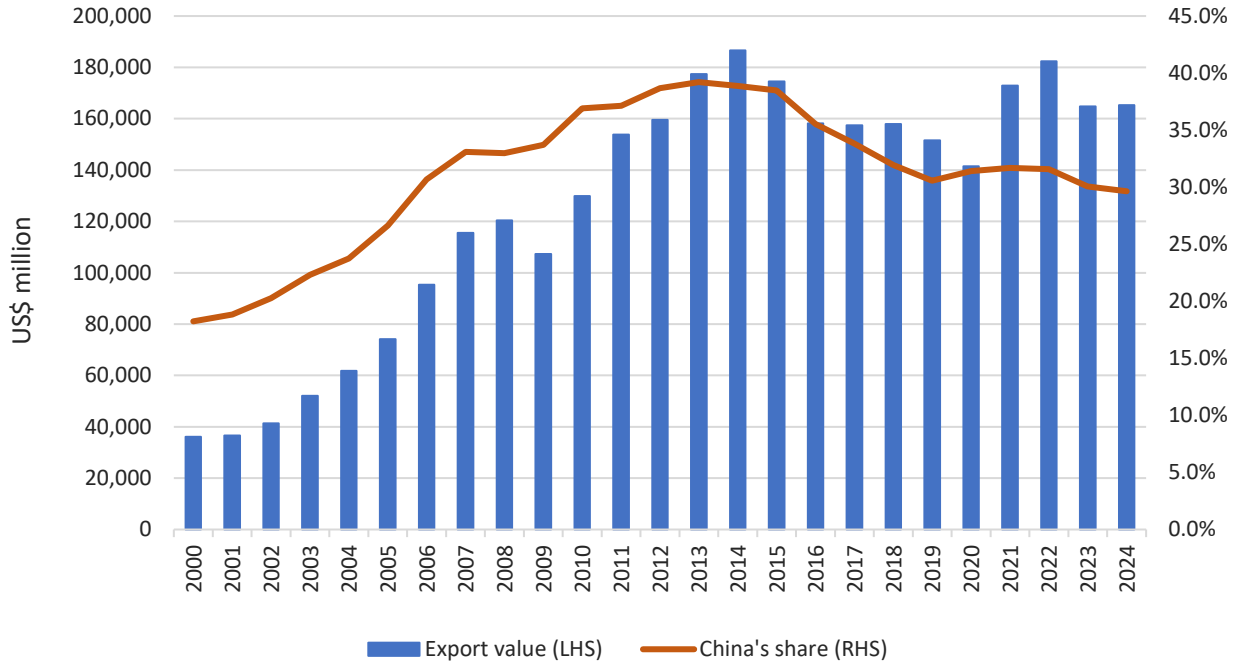
The sourcing diversification strategy in the apparel industry is closely linked to China, which has dominated the apparel production chain for decades due to its large, highly skilled labour force and mature, comprehensive supply chain system. Calls for reducing reliance on China have existed for more than a decade, and many reports indicate that world-famous brands have reduced their direct apparel sourcing share from China since the beginning of the century. However, global apparel brands and retailers find that viable alternatives are difficult to secure, especially for higher-value clothing that requires greater specialization and quality assurance. China remains especially competitive in manufacturing high-value items such as outerwear and accessories, offering a good combination of cost, reliability, speed to market, and low risk of non-compliance. Few places can compete with China in this high-value segment in terms of quality, quantity, and factory safety.

Figures 1 to 4 show China's shares in world exports of apparel, textile, raw textile materials, and apparel and textile machinery over an extended time period. As shown in Figure 1, China's share of global apparel exports peaked at 39.2% in 2013 and has gradually declined since. However, by 2024, China still led the world with nearly 30% of global apparel export share, while Bangladesh, the second-largest apparel exporter, accounted for less than 7%. Given this significant gap, China's leading position in apparel exports is unlikely to be surpassed in the near future. Meanwhile, China continues to be a leading textile supplier. As shown in Figure 2, its share of world textile exports has continued to rise, reaching 43.5% in 2024 (note: 2020 was an anomalous year due to the COVID-19 pandemic). China's share of world raw textile material exports is lower than in apparel and textile, but has risen gradually since 2020 and reached 10.5% in 2024, as shown in Figure 3.

More notably, China is increasingly becoming the dominant provider of apparel and textile machinery within the global apparel supply chains. China has been the world's largest apparel and textile machinery exporter since 2013, with its share rising to 35.7% in 2024, as shown in Figure 4. These exports are mainly destined for South and Southeast Asian countries, with India, Vietnam, Bangladesh, Pakistan, and Indonesia together accounting for 38.1% of China's total apparel and textile machinery exports in 2024, as detailed in Table 8. These countries are also major apparel exporters to the European and US markets.

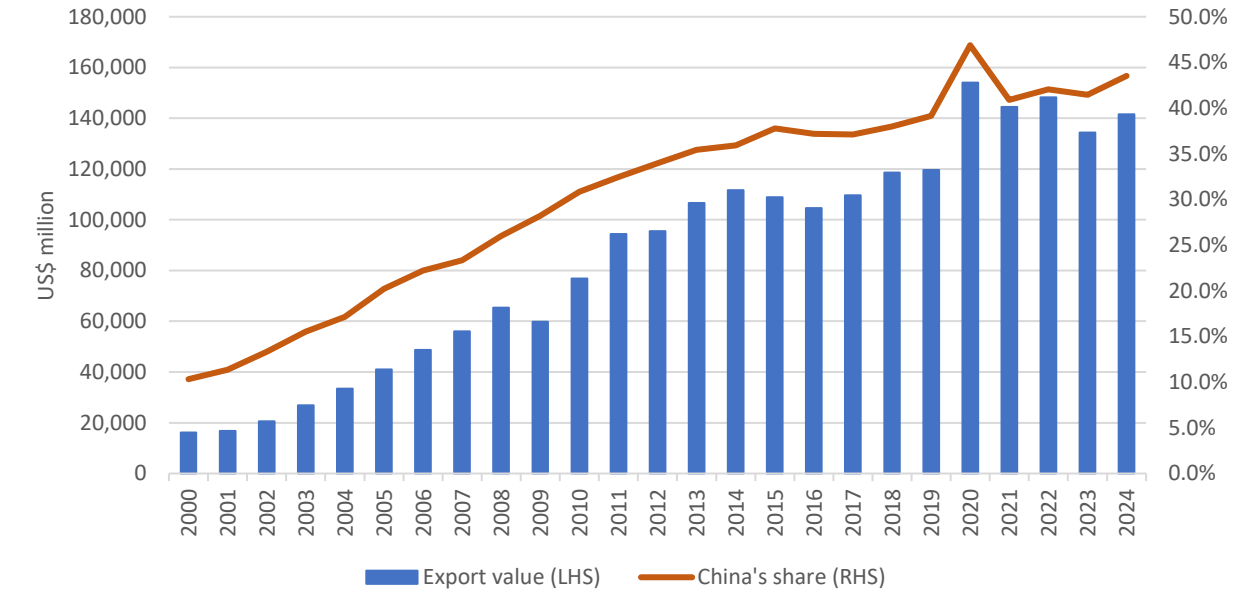
For these reasons, China will likely continue to dominate the apparel supply chain, while gradually moving up to higher value-added segments such as textiles and textile machinery.

Figure 1: China's apparel exports and share of world total, 2000-2024



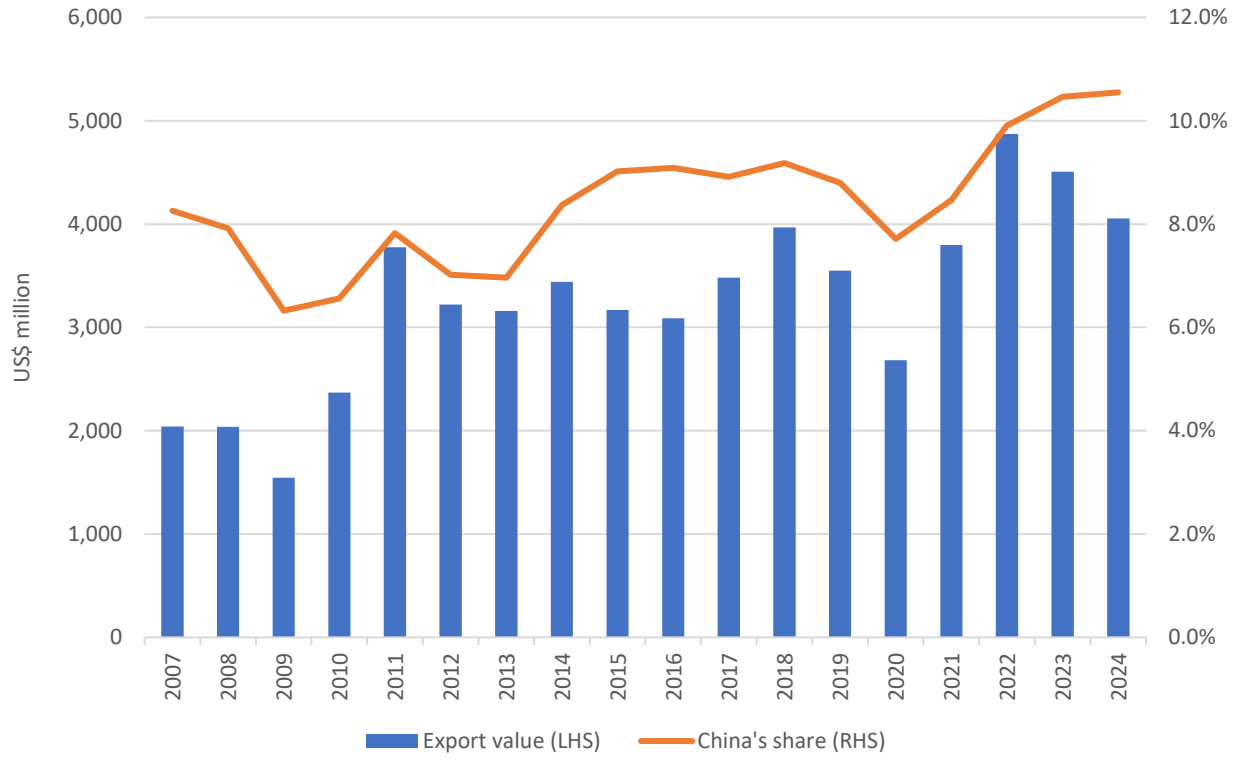
Note: Apparel refers to the commodity group of apparel and clothing accessories under SITC category 84.
Source: WTO STATS; HKUST Li & Fung Supply Chain Institute analysis.

Figure 2: China's textile exports and share of world total, 2000-2024



Note: Textile refers to the commodity group of textile yarn and related products under SITC category 65.
Source: WTO STATS; HKUST Li & Fung Supply Chain Institute analysis.

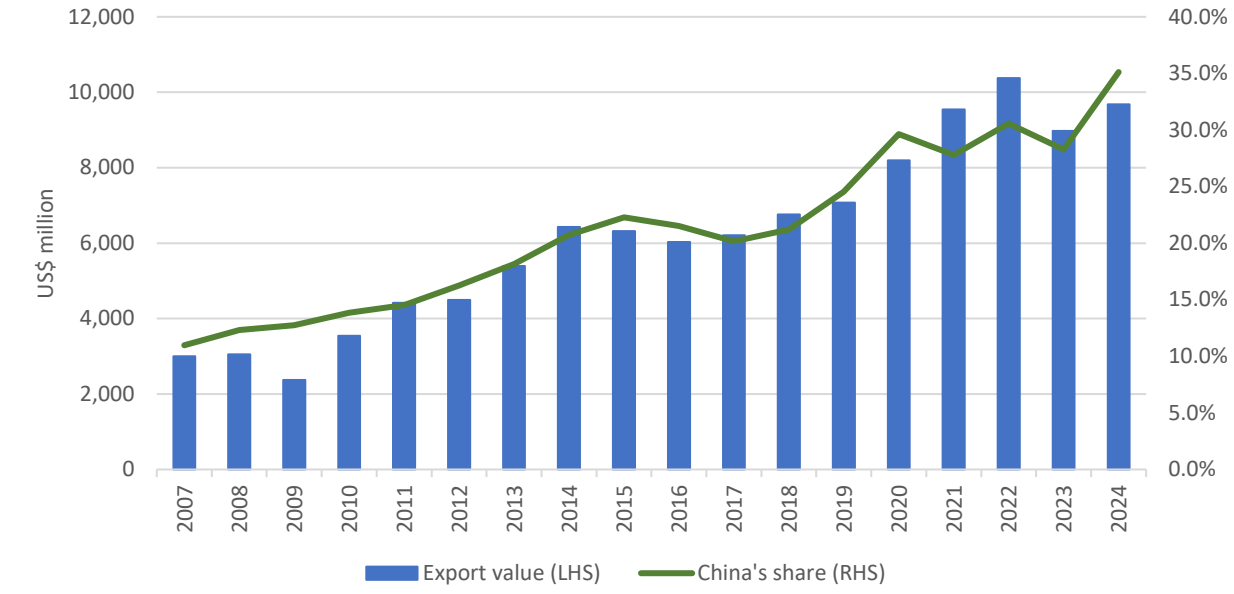
Figure 3: China's raw textile material exports and share of world total, 2007-2024



Note: Raw textile materials refer to the commodity group of textile fibres under SITC category 26.

Source: UN Comtrade Database; HKUST Li & Fung Supply Chain Institute analysis.

Figure 4: China's textile machinery exports and share of world total, 2007-2024



Note: Apparel and textile machinery refers to the commodity groups of textile and leather machinery and parts under SITC categories 7243-7247.

Source: UN Comtrade Database; HKUST Li & Fung Supply Chain Institute analysis.

Table 8: Top 10 destinations of China's apparel and textile machinery exports, 2023 and 2024

	2023		2024	
	Value (US$ mn)	Share	Value (US$ mn)	Share
World	***8,178***		***8,831***	
India	1,392	17.0%	1,435	16.2%
Vietnam	668	8.2%	941	10.7%
US	668	8.2%	615	7.0%
Bangladesh	320	3.9%	395	4.5%
Brazil	275	3.4%	383	4.3%
Japan	366	4.5%	338	3.8%
Pakistan	200	2.4%	304	3.4%
Turkey	400	4.9%	291	3.3%
Indonesia	255	3.1%	287	3.2%
Mexico	187	2.3%	256	2.9%

Note:

1. Apparel and textile machinery refers to the commodity groups of textile and leather machinery and parts under SITC categories 7243-7247 and 7249.

2. Ranked in 2024 value.

Source: UN Comtrade Database; HKUST Li & Fung Supply Chain Institute analysis.

In sum, China remains a key player throughout the global apparel supply chain, but its role is shifting from being a direct apparel supplier to the US and EU markets to supplying key intermediate products and equipment to other sourcing countries that serve European and US retailers. As the Chinese apparel industry matures and transitions from 'Made in China' to 'Made by China', this shift represents a natural progression in its industrial evolution.

2.2 The evolving multi-sourcing path

Despite China's continued dominance in the global apparel supply chain, purchasing managers worldwide have reached a consensus to reduce reliance on a single sourcing base—in this case, China—and diversify sourcing to multiple locations to enhance supply chain resilience.

According to McKinsey's 2023 global survey of apparel chief procurement officers (CPOs), the expected share of South Asia in total sourcing value over the next five years will increase to 34%, the largest share across all sourcing locations, while the expected share of China will decrease to 22%. The CPOs also identify India, Vietnam and Bangladesh as the top three sourcing hotspots for the next five years.[23]

[23] Karl-Hendrik Magnus and Patricio Ibáñez with Alice Scalco and Julian Hügl, "Reimagining the apparel value chain amid volatility," May 24, 2024, https://www.mckinsey.com/industries/retail/our-insights/reimagining-the-apparel-value-chain-amid-volatility

As discussed in the previous section, the relocation process is likely to occur first in downstream segments such as apparel assembly. To identify clearer multi-sourcing trends in global apparel supply chains, we analyze the compound annual growth rate (CAGR) of export shares for the top 20 apparel and textile exporters in 2023 over five- and ten-year periods (2018-2023 and 2013-2023). Table 9 shows the five- and ten-year share changes in apparel exports, and Table 10 shows five- and ten-year share changes in textile exports.

As Table 9 shows, Poland, which ranked the 11th in world apparel exports in 2023, has the largest five-year CAGR of share (9.6%) in apparel exports, with its share rising from 1.4% in 2018 to 2.3% in 2023. Poland also has the largest ten-year CAGR of share. Mexico, which ranked 18th in world apparel exports, has the second-largest five-year CAGR of share (4.4%), with its share increasing from 0.9% in 2018 to 1.1% in 2023. Pakistan, which ranked 14th in world apparel exports, has the third-largest five-year CAGR of export share (4.1%), with its share rising from 1.2% in 2018 to 1.5% in 2023. Among the top 10 apparel exporters in 2023, the export shares of Western European countries including the Netherlands[24], France, Germany, Italy, and Denmark all increased over the period from 2018 to 2023. Together with Poland‘s increased share, this indicates onshoring and nearshoring trends in Europe during this period. The world’s top 3 apparel exporters in 2023—China, Bangladesh, and Vietnam—all experienced negative five-year CAGRs of share, though Bangladesh and Vietnam showed positive ten-year CAGRs, indicating a slowdown in the pace of apparel production relocation to Asian countries in recent years.

Changes in export share within the apparel segment indicate that sourcing is being diversified across European, American, and Asian countries. However, the pace of relocation to Asian destinations has slowed in recent years, even though their position as key apparel production bases remains firmly established.

[24] The Netherlands' share in global apparel and textile exports has increased in recent years primarily due to its strategic role as a major re-export and distribution hub for Europe, facilitated by large ports like Rotterdam and a favourable business climate that supports efficient logistics and trade.

Table 9: Five- and ten-year share changes of top 20 apparel exporters in 2023

Rank in 2023	Economy	Apparel Export Share			Ten-year CAGR of share (2013-2023)	Five-year CAGR of share (2018-2023)
		2013	2018	2023		
11	**Poland**	0.9%	1.4%	2.3%	9.8%	9.6%
18	**Mexico**	1.0%	0.9%	1.1%	0.6%	4.4%
14	**Pakistan**	1.0%	1.2%	1.5%	3.9%	4.1%
7	**Netherlands**	1.9%	2.7%	3.2%	5.3%	3.9%
8	**France**	2.5%	2.7%	3.1%	2.3%	2.8%
5	**Germany**	4.1%	4.9%	5.4%	2.8%	2.0%
16	**US**	1.3%	1.2%	1.3%	0.1%	1.4%
4	**Italy**	5.2%	5.2%	5.5%	0.5%	1.2%
19	**Denmark**	0.8%	0.9%	1.0%	1.6%	1.0%
6	**Turkey**	3.5%	3.3%	3.4%	-0.2%	0.8%
2	**Bangladesh**	5.2%	6.7%	6.5%	2.3%	-0.3%
3	**Vietnam**	3.8%	5.8%	5.7%	4.1%	-0.6%
1	**China**	39.2%	32.0%	30.1%	-2.6%	-1.2%
10	**Spain**	2.6%	3.0%	2.8%	0.9%	-1.5%
15	**Cambodia**	1.1%	1.6%	1.5%	3.1%	-1.8%
12	**Belgium**	1.9%	2.0%	1.8%	-0.6%	-2.6%
13	**Indonesia**	1.7%	1.8%	1.5%	-1.1%	-3.4%
9	**India**	3.7%	3.3%	2.8%	-2.8%	-3.5%
20	**Sri Lanka**	1.0%	1.1%	0.9%	-1.5%	-3.9%
17	**Hong Kong, China**	4.8%	2.8%	1.2%	-13.1%	-15.7%

Note:

1. Apparel refers to the commodity group of apparel and clothing accessories under SITC category 84.

2. Top 20 apparel exporters are ranked by 2023 export value; in this table, economies are ordered by five-year CAGR of share.

Source: WTO STATS; HKUST Li & Fung Supply Chain Institute analysis.

As Table 10 shows, Mexico, Vietnam, and Poland recorded the largest five-year CAGRs of shares in the world's textile exports—5.4%, 5.2%, and 2.3%, respectively. In 2023, Vietnam ranked seventh in world textile exports, Poland ranked 16th, and Mexico ranked 17th. Chinese mainland, which ranked first in global textile exports in 2023, also grew its share with a five-year CAGR of 1.8%, rising from 38.0% in 2018 to 41.5% in 2023. Turkey, which ranked fourth, saw its share grow from 3.8% in 2018 to 4.1% in 2023—a five-year CAGR of 1.5%. The Netherlands' share in global textile exports also grew at a five-year CAGR of 1.0%, from 2.0% in 2018 to 2.1% in 2023; the Netherlands ranked tenth in 2023.

Changes in textile export shares highlight China's entrenched position in textile sourcing, while diversification to other regions is occurring at a rather slow pace.

Table 10: Five- and ten-year share changes of top 20 textile exporters in 2023

Rank in 2023	Economy	Textile Export Share			Ten-year CAGR of share (2013-2023)	Five-year CAGR of share (2018-2023)
		2013	2018	2023		
17	**Mexico**	0.8%	0.9%	1.1%	3.2%	5.4%
7	**Vietnam**	1.5%	2.6%	3.4%	8.3%	5.2%
16	**Poland**	0.8%	1.0%	1.1%	4.2%	2.3%
1	**Chinese mainland**	35.4%	38.0%	41.5%	1.6%	1.8%
4	**Turkey**	4.1%	3.8%	4.1%	0.0%	1.5%
10	**Netherlands**	1.7%	2.0%	2.1%	1.9%	1.0%
13	**France**	1.8%	1.6%	1.6%	-1.1%	0.0%
8	**Pakistan**	3.1%	2.6%	2.5%	-2.0%	-0.3%
15	**Spain**	1.4%	1.5%	1.5%	0.2%	-0.6%
2	**India**	6.3%	5.8%	5.6%	-1.2%	-0.8%
20	**Czech Republic**	0.8%	1.0%	0.9%	0.8%	-1.0%
6	**Italy**	4.5%	4.1%	3.7%	-1.8%	-1.7%
3	**Germany**	5.0%	4.8%	4.3%	-1.4%	-2.0%
5	**US**	4.6%	4.4%	3.8%	-1.9%	-2.9%
18	**United Kingdom**	1.3%	1.2%	1.0%	-2.8%	-3.4%
14	**Belgium**	2.0%	1.9%	1.6%	-2.3%	-3.6%
12	**Japan**	2.3%	2.1%	1.8%	-2.6%	-3.9%
19	**Thailand**	1.3%	1.2%	0.9%	-3.2%	-4.8%
9	**South Korea**	4.0%	3.1%	2.2%	-6.0%	-7.3%
11	***Taiwan, China***	*3.4%*	*3.0%*	*1.9%*	*-5.7%*	*-8.5%*

Note:

1. Textile refers to the commodity group of textile yarn and related products under SITC category 65.

2. Top 20 textile exporters are ranked by 2023 export value; in this table, economies are ordered by five-year CAGR of share.

Source: WTO STATS; HKUST Li & Fung Supply Chain Institute analysis.

The multi-sourcing destinations highlighted in the apparel and textile segments indicate signs of onshoring and nearshoring for the EU and the US markets, although Asian countries remain among the options. It should also be noted that most destinations for multi-sourcing account for a very small proportion of global export share. Therefore, these trends will take time to fully materialize. The nearshoring and onshoring issue will be further discussed in the next section.

We also expect that relocation from China will be fraught with setbacks due to a lack of skilled workers, insufficient raw materials, and underdeveloped infrastructure and logistics networks in locations outside China. Weakening consumer demand globally in recent years could be another headwind, which makes the 'China Plus' strategy and investment expansion less viable for businesses.

2.3 Near-shoring and onshoring are on the rise

Nearshoring involves relocating operations or production from distant countries, often on another continent, back to a country or region closer to customers. It is believed to allow

companies to respond more quickly to consumer demand and be more flexible, thus increasing supply chain efficiency while reducing costs and carbon footprints due to shorter shipping distances.

In recent years, intensified geopolitical tensions, pandemics, and increased demand volatility have fuelled the discussions of 'nearshoring' and even 'friendshoring' away from Asia, which could reconstruct the apparel supply chain. In McKinsey's 2021 survey, *Revamping fashion sourcing: Speed and flexibility to the fore*[25], chief procurement officers (CPOs) at 38 international brands and retailers indicated that apparel companies are reshuffling their sourcing-country mix, looking to reshoring and particularly nearshoring to strike a balance between reliability and flexibility in the supply chain.

In this section, we analyze the nearshoring and onshoring for the two key apparel import markets: the US and Europe to identify the development of these trends.

2.3.1 The gradual formation of a nearshoring production base for the US market

Nearshoring production for the US apparel market naturally points to the US's southern neighbour, Mexico, as a member of the United States-Mexico-Canada Agreement (USMCA) and, to a lesser extent, Central American countries under the Dominican Republic-Central America Free Trade Agreement (CAFTA-DR). CAFTA-DR is a free trade agreement between the US and its six Central American neighbours—Costa Rica, El Salvador, Guatemala, Honduras, Nicaragua, and the Dominican Republic—effective since 2006[26]

Mexico's role as a nearshoring production base for the US market has significantly increased due to the China-US trade war that started in 2018 and the supply chain disruptions caused by the COVID-19 pandemic. In 2023, Mexico, for the first time in 20 years, surpassed China to become the biggest goods exporter to the US.[27] However, our analysis, as shown in Figures 5 to 8, reveals that Mexico's share of US imports in the apparel sector has increased noticeably only in textile machinery, reaching the top position in 2024. There has also been a modest increase in US textile imports from Mexico since 2020. Figures 5-8 further indicate that the share of CAFTA-DR countries in US apparel imports has remained flat as of 2024.

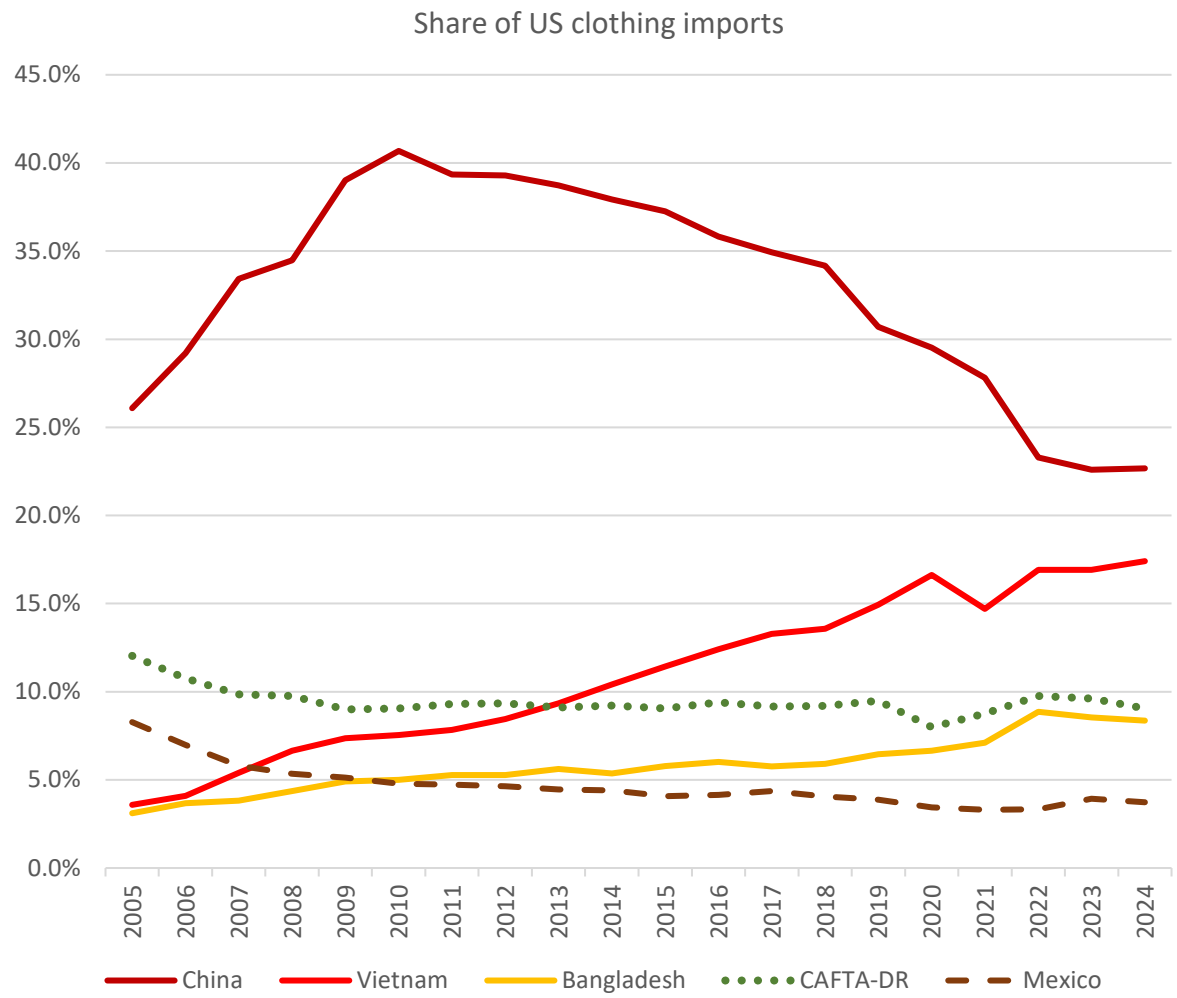
Another clear trend in the current US apparel supply chain is that, while China remains one of the top suppliers, its share across the apparel supply chain—from raw materials, textiles, and apparel to apparel and textile machinery—has decreased substantially. However, China's lost share in the US apparel supply chain has mainly shifted to other Asian countries rather than to the US's neighbouring countries.

[25] Saskia Hedrich, Julian Hügl, Patricio Ibáñez, and Karl-Hendrik Magnus, "Revamping fashion sourcing: Speed and flexibility to the fore," November 12, 2021, www.mckinsey.com

[26] "Dominican Republic-Central America FTA (CAFTA-DR)," Office of the US Trade Representative, accessed 30 October 2025, https://ustr.gov

[27] Marrian Zhou, "Mexico replaces China as top exporter to U.S. in 2023," February 8, 2024, asia.nikkei.com.

Figure 5: US apparel imports: nearshoring (Mexico and CAFTA-DR) vs. other top sources



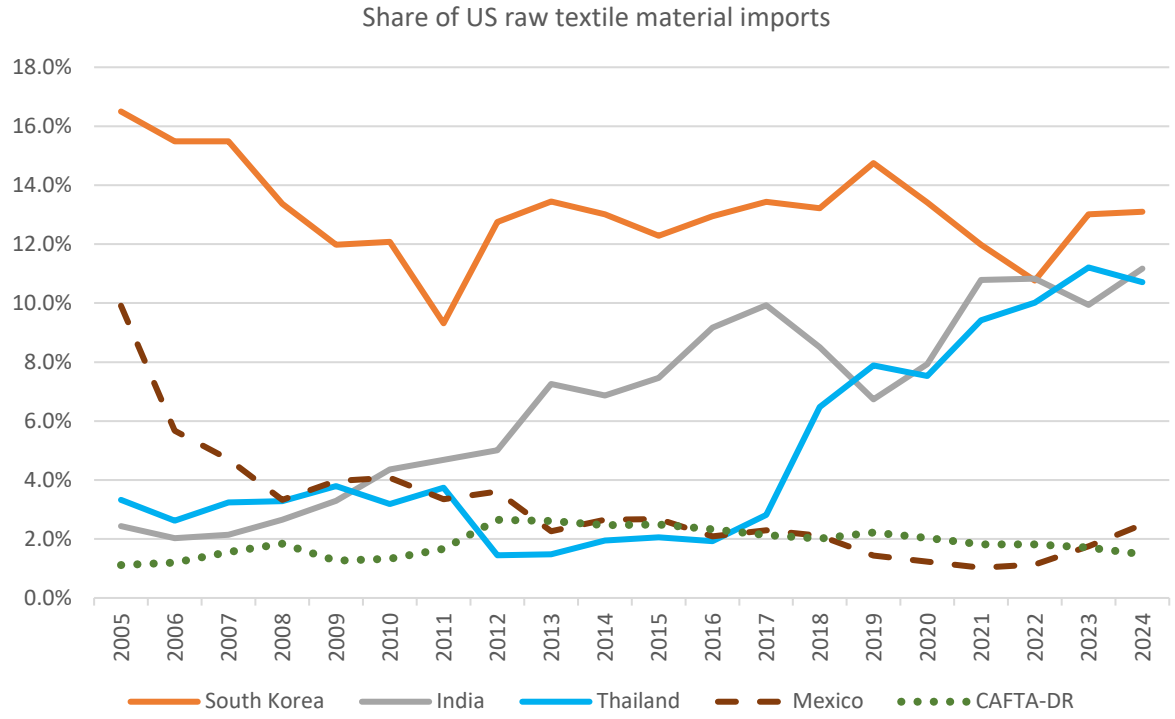
Note: Apparel refers to the commodity group of apparel and clothing accessories under SITC category 84.

Source: United States International Trade Commission; HKUST Li & Fung Supply Chain Institute analysis.

Figure 6: US textile imports: nearshoring (Mexico and CAFTA-DR) vs. other top sources

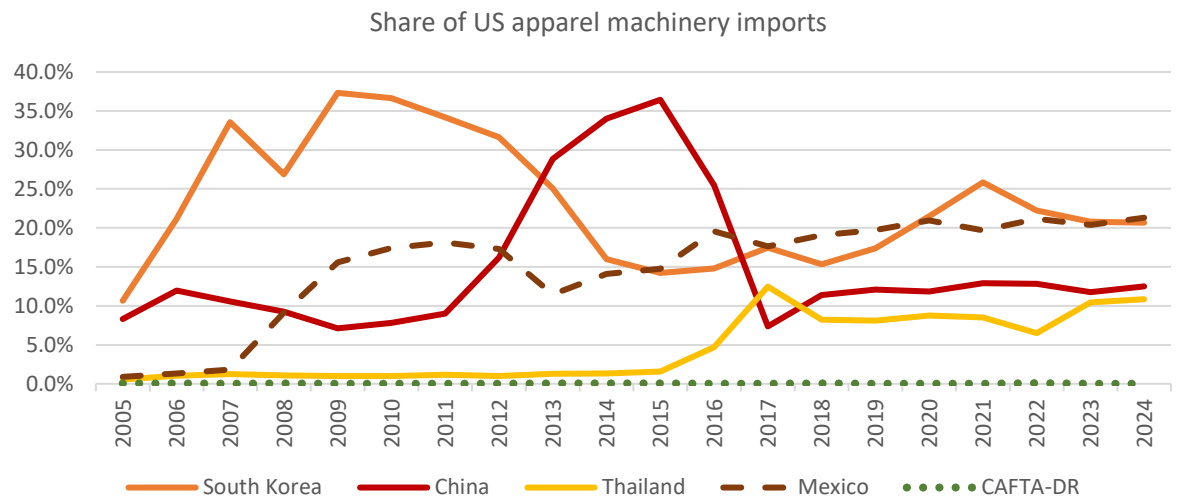
Note:
Textile refers to the commodity group of textile yarn and related products under SITC category 65.
Mexico is the third source of US textile imports.
Source: United States International Trade Commission; HKUST Li & Fung Supply Chain Institute analysis.

Figure 7: US raw textile material imports: nearshoring (Mexico and CAFTA-DR) vs. other top sources



Note: Raw textile materials refer to the commodity group of textile fibres under SITC category 26.
Source: United States International Trade Commission; HKUST Li & Fung Supply Chain Institute analysis.

Figure 8: US apparel and textile machinery imports: nearshoring (Mexico and CAFTA-DR) vs. other top sources



Note:
Apparel and textile machinery refers to the commodity groups of textile and leather machinery and parts under SITC categories 7243-7247.
Mexico was the largest source of US apparel and textile machinery imports in 2023.
Source: US International Trade Commission; HKUST Li & Fung Supply Chain Institute analysis.

Nevertheless, we believe the nearshoring trend for the US apparel market will gradually gain importance. The reason is that, while some prominent American brands like Levi's, Victoria's Secret, Under Armour, and Nike have already had established sourcing bases in Mexico,[28] most US fashion companies have only decided to make concrete investments in nearshoring bases since 2020. This means that most supply from these nearshoring bases will not be available until at least 2025.[29]

For example, in February 2023, Columbia pledged to purchase up to US$200 million in products from the 'Northern Triangle' of Guatemala, Honduras, and El Salvador, creating nearly 7,000 jobs over five years. Target committed to increase its sourcing in the region by US$300 million in 2022. Clothing maker Gap Inc. pledged a US$150 million increase by 2025, supporting 5,000 additional jobs.[30] SanMar, a US-based apparel wholesaler, announced it would increase its purchases in Honduras by US$500 million, creating 4,000 additional jobs at Elcatex, an apparel manufacturer in Choloma. The Spanish textile industrial group Nextil committed in 2023 to allocating US$40 million to its new factory in Guatemala to produce garments and elastic fabrics. Half of the allocation has already been invested. The company expects this investment to generate more than 1,300 direct jobs and another 3,000 indirect jobs.

[28] "What Are the Clothing Brands Made in Mexico?" November 5, 2022, www.zipfox.com
[29] Sheng Lu, "Exploring US Apparel Brands and Retailers' Evolving Sourcing Strategies," December 1, 2023, https://shenglufashion.com
[30] Rick Barrett and Mark Hoffman, "As Apparel Makers Move Work From China to Central America, Jobs Could Dent Migration Crisis," June 12, 2024, https://pulitzercenter.org/.

Many Asian companies supplying the US end-brands are also establishing joint ventures with local manufacturers in Mexico in an effort to build production capacity closer to their main markets in the Western Hemisphere. For example, Pakistani firm Artistic Milliners and Vietnamese firm Phong Phu International (PPJ) are transferring orders for GAP and Target to Mexico. South Korea-based clothing manufacturer Hansae Co., Ltd. is establishing a localized sourcing stream for synthetic textiles for its Haitian manufacturing operations through a strategic partnership with fabric manufacturer Willbes Dominica Synthetic Mill. The company also entered into a strategic alliance with Northern Textiles, a brand new and state-of-the-art circular knitter and subsidiary of GK Global located in Honduras, in July 2023, to enhance its fabric sourcing and production capabilities in the Central American region and maximize the advantages of nearshoring.

As for onshore production, the editor of *SJ Denim Magazine* revealed a bleak outlook after interviewing American denim manufacturers, writing: 'The prevailing sentiment from domestic denim brand owners and designers is that a thriving domestic denim industry is unlikely to make a comeback. The necessary investment, expertise, machinery, and skilled workforce simply aren't in place.'[31]

To sum up, despite political instability, corruption, violence, and economic and policy barriers in Central American countries, the US's intensifying competition with China and geographical proximity to the US market make Mexico and Central America appealing production bases for the US market. However, this potential might face setbacks in the short term, as US President Donald Trump erratically uses tariffs as a weapon to address trade deficits and non-economic issues with other countries, irrespective of ally or foe. Many investors are adopting a wait-and-see approach that will slow the pace of facility construction in these nearshoring destinations.

2.3.2 Onshoring and nearshoring for the European market need time to gain significance

For renowned European apparel brands, typically based in Western and Southern European countries, nearshoring bases usually refer to countries in Eastern Europe, North Africa (notably Morocco and Tunisia), and Western Asia (primarily Turkey). Figures 9 to 12 illustrate the top 10 sourcing economies for the five primary European apparel markets—France, Germany, Italy, Spain, and the UK [32] (hereafter 'Europe-5'[33]) combined—in apparel, textiles, fibres, and apparel and textile machinery, respectively. Table 10 summarized these top 10 sourcing countries grouped by their proximity to Europe-5, i.e., by onshore, nearshore, Asian (except Turkey), and others.

[31] Angela Velasquez, "Made in America" Issue, SJDENIM, July 22, 2025, https://sourcingjournal.com/denim.

[32] Angela Velasquez, "Made in America" Issue, SJDENIM, July 22, 2025, https://sourcingjournal.com/denim.

[32] Five European apparel markets are based on 2024 sales revenue. (see Statista, "Apparel market in Europe").

[33] For analytical consistency, these five countries, i.e. France, Germany, Italy, Spain, and the UK are treated as a single group representing key apparel import destinations in Europe.

Figure 9 presents the top 10 sources of Europe-5's apparel imports from 2013 to 2024. It shows that China is the leading supplier in the apparel segment of Europe-5's apparel supply chain, but its share declined from 29% in 2013 to 22% in 2024 (see Figure 9). In fact, China's share in Europe-5's imports has decreased only in the apparel segment, and this downward trend began well before the China-US trade war. It is therefore attributed more to rising labour and factory costs in China. Figure 9 also indicates that the decline in China's share was largely taken up by increased shares from other Asian countries, most notably Bangladesh, whose share rose from 10% in 2013 to 16% in 2024. Turkey is Europe-5's third-largest sourcing country and the top nearshore location. However, its share has remained steady at around 8% over the past decade, with a slight decline in 2023 and 2024. As shown by Table 10, Europe-5's two key onshore sourcing locations in the apparel segment[34]—Italy and France—contributed 7.8% of the imports, down from 8.5% in 2013 (see also Table 10), while its two key nearshore locations—Turkey and Morocco—contributed 10.7% of Europe-5's apparel imports, down from 11.3% in 2013. Six Asian countries in the top 10 (China, Bangladesh, Vietnam, Cambodia, India, and Pakistan) accounted for 54.1% of Europe-5's imports in 2024, up from 49.0% in 2013.

Figure 10 shows that the proportions of Europe-5's leading sourcing locations in its textile imports have been relatively stable over the past decade (2020 was an outlier due to the Covid-19 pandemic). China ranks first with a market share of approximately 20%, and Turkey ranks second with a market share of about 8%. As Table 10 shows, while Asian countries account for the largest import share of Europe-5 in this segment, with three Asian countries in the top 10—China, Pakistan, and India—accounting for 32.8% of Europe-5's imports (up from 26.4% in 2013), onshore locations are also an important source of its imports. The five onshore locations among the top 10—Italy, Germany, the Netherlands, Belgium, and France—combined contributed 23.5% of imports in 2024, down from 29.3% in 2013. Two key nearshore locations—Turkey and Poland—contributed 11.5% of Europe-5's textile imports in 2024, up from 9.8% in 2013.

Figure 11 shows that China also leads in supplying raw textile materials to Europe-5, with a share exceeding 17% in recent years. Turkey's share has steadily increased since 2019, surpassing Germany in 2024 with a 7.1% share to become the second-largest supplier to Europe-5 in this segment. As shown in Table 10, in this segment, while key onshore locations (Germany, Austria, and Belgium) maintain a share of nearly 20%, their combined shares declined from 20.2% in 2013 to 18.7% in 2024. Meanwhile, the key nearshoring countries (Turkey and Czechia), Asian countries (China, South Korea, Japan, and India), and others (the US) among top 10 suppliers have seen their shares increase—with the share of nearshore

[34] All Western and Southern European countries are considered onshore locations here.

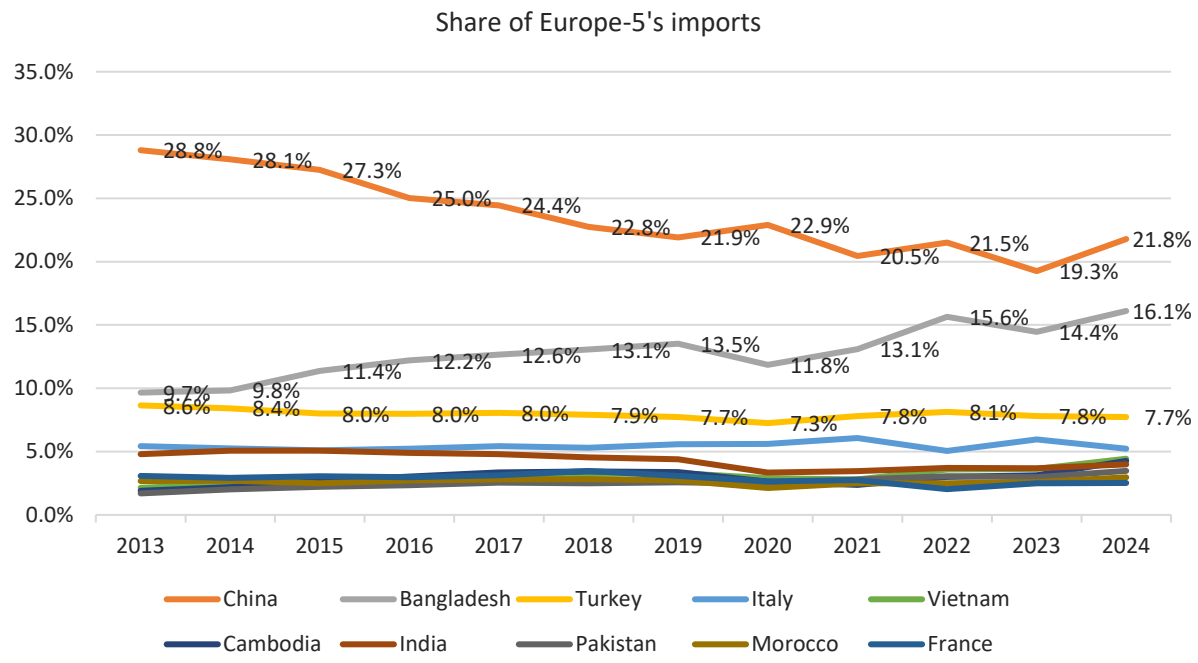
countries increasing from 6.7% to 9.8%, Asian countries from 23.7% to 29.6%, and the US from 2.5% to 3.6% from 2013 to 2024.

Apparel and textile machinery represents a relatively high-tech segment, and China and Germany have alternated leadership in Europe-5's import market in recent years, as shown in Figure 12. Italy ranks third, but its share has dwindled from 12% in 2013 to 7% in 2024. Key nearshore locations (Poland, Czechia, and Turkey) among the top 10 suppliers maintain their share at around 14%. Conversely, key onshore suppliers (Germany, Italy, France, and Switzerland) in this segment have seen their share decrease from 38% in 2013 to 30% in 2024, and this lost share appears to have been largely taken up by key Asian suppliers (China, Vietnam, and Japan), whose share increased from 20% in 2013 to 28% in 2024 (see Table 10).

In summary, the figures and table indicate that Europe-5 sources from onshore, nearshore, and other global locations in parallel, with Asian countries, particularly China, as the leading suppliers in all four segments of Europe-5's apparel supply chain. While onshore locations remain an important source, nearshore locations such as Turkey, Poland, and Czechia have seen their shares increase, although the increase is slow in most segments.

From this analysis, we believe that Asian locations in general, and China in particular, will continue to be the dominant sourcing locations in the European apparel supply chain. Turkey is a bright spot in Europe's nearshoring production base, ranking among the top 10 suppliers in all four segments. However, its share in Europe's import has not shown encouraging increases. We expect Turkey's share will not grow rapidly in the near future due to its high labour costs and a less stable domestic environment. As for other nearshoring locations, they account for very small proportions of Europe's imports. For Central and Eastern European countries, their significance in other sectors may be increasing, but this is less evident in the apparel industry.

Figure 9: Top 10 Sources for Apparel Imports by Europe-5, 2013–2024

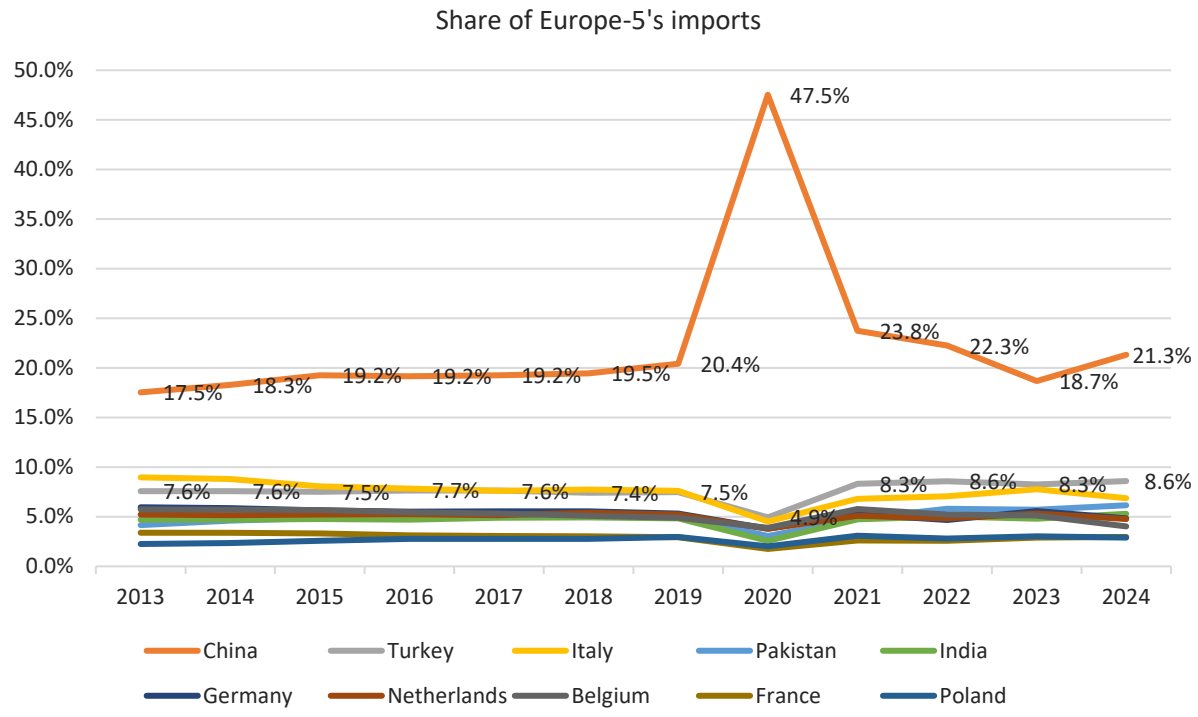


Note:

1. Apparel refers to the commodity groups of apparel and clothing accessories under SITC 84.
2. Europe-5 refers to France, Germany, Italy, Spain, and the UK.

Source: UN Comtrade Database; HKUST Li & Fung Supply Chain Institute analysis.

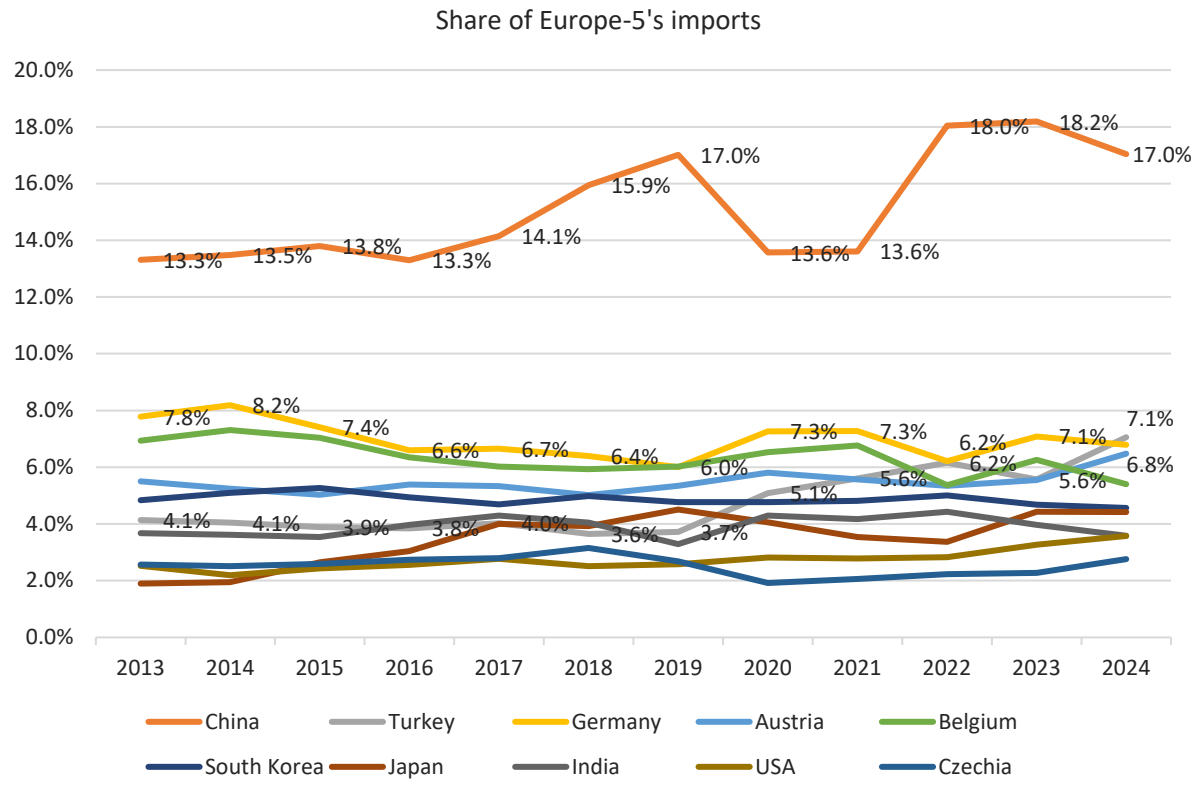
Figure 10: Top 10 sources for textile imports by Europe-5, 2013-2024



Note: Textile refers to the commodity group of textile yarn and related products under SITC category 65.

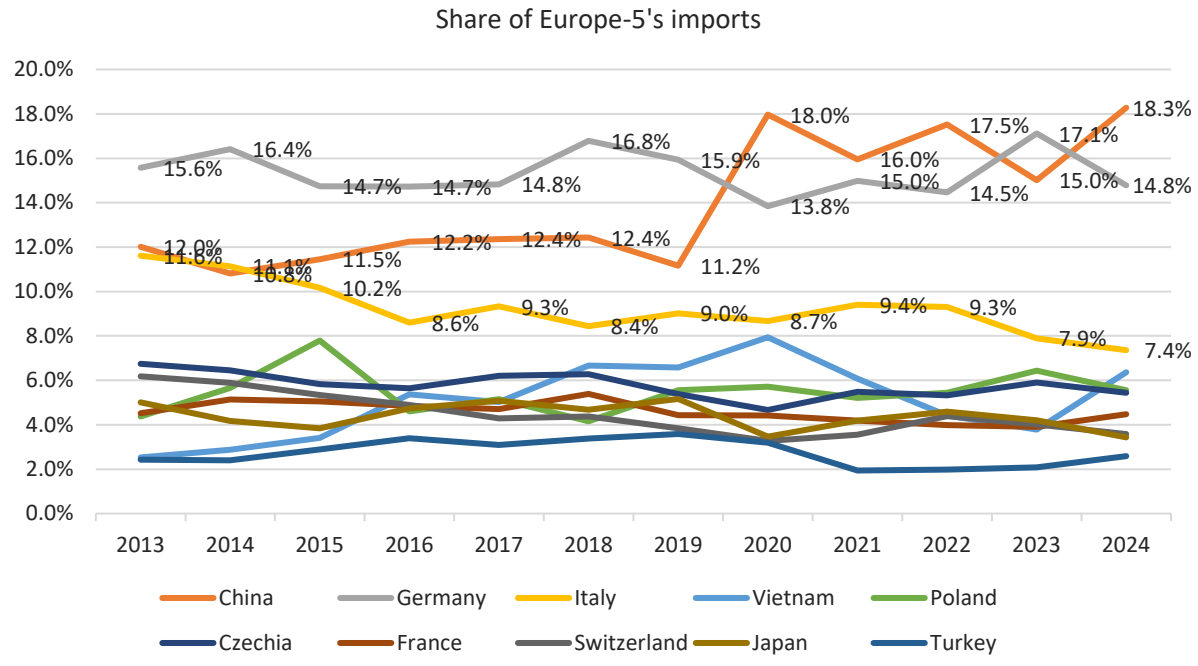
Source: UN Comtrade Database; HKUST Li & Fung Supply Chain Institute analysis.

Figure 11: Top 10 sources for raw textile material imports by Europe-5, 2013-2024



Note: Raw textile materials refer to the commodity group of textile fibres under SITC category 26.
Source: UN Comtrade Database; HKUST Li & Fung Supply Chain Institute analysis.

Figure 12: Top 10 sources for apparel and textile machinery imports by Europe-5, 2005-2023



Note: Apparel and textile machinery refers to the commodity groups of textile and leather machinery and parts under SITC categories 7243-7247 and 7249.
Source: UN Comtrade Database; HKUST Li & Fung Supply Chain Institute analysis.

Table 10: Shares of Europe-5's Top 10 Apparel Sources by Location and Segment, 2013&2024

	Apparel		Textile		Raw textile material		Machinery	
	2013	2024	2013	2024	2013	2024	2013	2024
Onshore	8.5%	7.8%	29.3%	23.5%	20.2%	18.7%	37.9%	30.2%
Nearshore	11.3%	10.7%	9.8%	11.5%	6.7%	9.8%	13.5%	13.6%
Asia	49.0%	54.1%	26.4%	32.8%	23.7%	29.6%	19.6%	28.1%
Others	0	0	0	0	2.5%	3.6%	0	0

Note: Asian countries do not include Turkey as it is considered a nearshore country of Europe-5.
Source: UN Comtrade Database; HKUST Li & Fung Supply Chain Institute analysis.

The above analysis in this section shows that, while apparel brands and retailers in the US and Europe are increasingly sourcing less from China, particularly in the apparel manufacturing segment, the share of imports from nearshore and onshore locations has remained largely unchanged. We believe this relocation trend will take time to gain significance.

2.4 AI application, innovative fabrics, and automation to lead technology competition

Since the invention of the Spinning Jenny sparked the First Industrial Revolution, the apparel industry has been propelled by technological advancements. New technologies will continue to play a crucial role in shaping its future. We identified three key themes in the upcoming technology competition within the global apparel supply chain: the application of AI throughout the apparel value chain, innovative fabrics and the innovative use of fabrics, and continuous automation in apparel manufacturing.

2.4.1 AI becomes a standard component of the apparel supply chain

Artificial intelligence (AI) isn't new, though its names and forms have evolved across eras, with companies throughout history striving to leverage it for efficiency. However, it's only in recent years that AI has truly demonstrated its potential for real-world applications, driven largely by advances in generative AI and language models capable of understanding and generating human-like text. A key milestone was arguably the release of ChatGPT-3.5 by OpenAI in late 2022, which enabled businesses to integrate AI into their operations far more seamlessly. This qualitative leap convinced many managers that the technology had reached a level of maturity sufficient to boost productivity and profitability.[35]

AI's speed and accuracy in high-fidelity generative design, virtual prototyping with rapid iteration, real-time synthesis of multi-source consumer insights (including e-commerce bestsellers, social media mentions, and search trends) into predictive trend forecasts, context-aware data integration, and automated regulatory compliance verification are

[35] Insights from personal communications with industry experts, 2025.

enabling apparel firms to reduce costs, accelerate time-to-market, mitigate decision risk, and lower material waste and carbon emissions. For example, industry experts we interviewed told us that generative AI tools used for design ideation, virtual prototyping, and trend forecasting have significantly shortened the design-to-approval cycle while reducing physical samples by more than two-thirds.

Our visits to leading apparel sourcing and manufacturing companies reveal that AI is now being integrated across multiple stages of the supply chain—from product design and lookbook creation to order forecasting, warehousing, and logistics, and all the way to on-site applications such as fabric inspection, colour formulation systems, and hybridization for cultivating raw textile materials.

This trend points to a future where AI becomes a standard component of the apparel supply chain, driving innovation and efficiency across the entire industry. As the competitive landscape evolves, companies recognize that leveraging AI is no longer optional but essential for maintaining a competitive edge. Industry experts and managers consistently emphasized that the rapid advancement and maturation of AI technologies are not only enhancing productivity but also creating a sense of urgency across the sector to adopt AI solutions quickly.

2.4.2 Wider adoption of automation in manufacturing processes

Innovative automation systems and robotics equipped with advanced sensors and programming can handle intricate tasks such as fabric cutting, sewing, and even packaging efficiently with minimal human intervention. This reduces labour costs and significantly improves the consistency and quality of textile products.[36]

Germany and Japan are at the forefront of apparel automation technologies. Manufacturers in these countries are using advanced robotics, computerized sewing and cutting machines, and digital printing systems to achieve high-quality production, customization, and efficient manufacturing processes. Meanwhile, US manufacturers are leveraging automation to reshore production and reduce reliance on overseas manufacturing.[37]

Developing countries, particularly in Asia, have become apparel manufacturing hubs due to the availability of cheap labour and natural resources. However, as production becomes fast-paced, ensuring good quality and consistency in products has become necessary to face stiff competition. Although the initial investment is high, manufacturers across countries are adopting automation technology to enhance production efficiency, improve quality, and stay competitive in the global market. From China and Turkey to India, apparel manufacturers have invested in automation, adopting automated cutting, sewing, and assembly systems to

[36] "The Impact of Technology on Textile Manufacturing," June 22, 2024, https://vooinc.com

[37] Lipsa Mohapatra, "Automation in Garment Making," *Fibre2fashion,* August 2023,www.fibre2fashion.com.

streamline operations, reduce labour-intensive tasks, enhance product quality, and improve overall efficiency.[38]

The Bangladeshi and Vietnamese governments have implemented policies to promote technological advancement and encourage investment in automation technologies. These policies have attracted many international apparel companies, such as TAL Apparel (Hong Kong), Thygesen Textile (Denmark), H&M (Hennes & Mauritz AB, Sweden), PVH Corp (US), Esquel Group (Hong Kong), as well as many Chinese mainland companies, to establish highly automated plants in these two countries.

The rapid advancements in Chinese apparel and textile machinery, together with the global investments made by Chinese apparel firms, have further facilitated the adoption of automation in textile and apparel production. Chinese brands such as Jingwei (spinning), Tianma/Picanol (weaving), Fong's (dyeing), and Jack (sewing) are not just 'Chinese alternatives' for Italian and German machines but are often the first choice for cost-conscious and efficiency-driven factories worldwide. Appendix 1 outlines three distinct stages of Chinese apparel firms' 'going global' journey.

Developed and developing countries alike have realized that the integration of automation in the textile and apparel industry is essential for maintaining competitiveness and ensuring high-quality production in a rapidly evolving market. Therefore, while textile and apparel manufacturing remains labour-intensive and cost-driven, we expect automated machinery to increasingly replace manual processes in the textile and apparel production process in the coming years.

2.4.3 Innovation in fabrics and innovative use of fabrics

The apparel industry is fabric-based. At present, synthetic fibres such as polyester and nylon account for nearly 70% of global fibre production. Cotton accounts for about 20% of global fibre production, while other traditional fibres like wool, linen, and silk account for less than 10%.[39]

Fabrics significantly influence the quality, efficiency, comfort, and sustainability of apparel. Recent fabric innovations have been explosive, but the adoption of new fabrics will centre on two key themes: performance and sustainability. This shift is primarily driven by changing consumer preferences towards comfortable, functional, athleisure, and environmentally friendly apparel.

[38] Lipsa Mohapatra, "Automation in Garment Making," *Fibre2Fashion,* August 2023, www.fibre2fashion.com.

[39] Xuandong Chen, Hifza A. Memon, Yuanhao Wang, Ifra Marriam and Mike Tebyetekerwa, "Circular Economy and Sustainability of the Clothing and Textile Industry," *Materials Circular Economy*, 3, no. 12 (2021), https://doi.org/10.1007/s42824-021-00026-2; "Materials Market Report 2025," Textile Exchange, September 18, 2025. https://textileexchange.org/knowledge-center/reports/materials-market-report-2025/; "Global fiber production reaches record levels in 2024," Texdata, October 2, 2025, https://www.texdata.com/news/Man-MadeFibers/22094.html.

Advancements in material science are significantly enhancing the performance of functional fabrics. Demand for better-performance clothing in sports, healthcare, and comfort is increasing. For example, the global athleisure market—currently valued at around US$300 billion—is expected to reach US$517 billion by 2026.[40] To meet this demand, apparel manufacturers are adopting more moisture-wicking and breathable fibres. Thermal fabrics that retain heat, ideal for winter clothing and outdoor activities, will also create more value in the apparel industry. Smart fabrics embedded with sensors to monitor health metrics like heart rate, temperature, and hydration levels will also be applied more widely in apparel production.

Moreover, the growing consumer demand for cleaner, fresher, longer-lasting textiles will drive manufacturers and brands to incorporate more antimicrobial fabric treatments and odour-control technologies into their products.[41] Nanofabrics with properties like stain resistance, waterproofing, and self-cleaning capabilities will also see wider use in the apparel industry.[42] To provide more comfortable clothing, extremely fine synthetic fibres that create a soft, smooth texture, along with eco-friendly Modal and Tencel derived from wood pulp and known for their softness and breathability, will also become more widely used in the textile industry.

Technologies and practices are increasingly being applied to create sustainable textiles. As one of the most polluting industries[43], the apparel industry faces growing pressure to reduce its environmental impact. To address these concerns, the reuse and recycling of materials are being increasingly adopted to minimize waste. Recycled materials such as discarded textiles, plastic bottles, fishing nets, and fibres extracted from agricultural waste products like leaves and rinds are being increasingly used to make apparel. Technologies for recycling textile waste are also gaining popularity. For example, brands like COS and H&M have chosen cupro as one of their fabric sources. Cupro is produced from cotton linter, a waste product from cotton plants, using closed-loop technology.[44] Degradable and non-pollution fibres developed from protein and seaweed are also used by tech-savvy companies like Cobalt Fashion, the largest specialist in the knitwear industry.[45]

Innovative dyeing techniques[46] are also being increasingly adopted to reduce pollution. Hong Kong-based apparel manufacturing company Esquel has invested over RMB 10 million

[40] "The Growing Market for Performance Athleisure Apparel," 330 Trading Co, July 3 2023. www.330trading.com

[41] "New Innovations in the Textile Industry & Trends in 2024," Microban, accessed November 20, 2025, www.microban.com.

[42] Rohan, "Modern Advances in Textile Technology: The Fabric Revolution," November 20, 2023, https://knowingfabric.com/modern-advances-in-textile-technology-the-fabric-revolution/#google_vignette.

[43] "Waterless Dyeing Technology," October 4, 2023, World Trade Organization, www.wto.org.

[44] Luke Christou, "7 sustainable fashion technologies for eco-friendly production," September 24, 2024, https://3dlook.ai.

[45] Hong Kong-based Cobalt has created knitwear using AlgaFila—a seaweed-based fibre—and is working to develop fibres and dyes from proteins and bacteria. *Private communication, 2025*.

[46] Rohan, "Modern Advances in Textile Technology: The Fabric Revolution," November 20, 2023, https://knowingfabric.com.

(about US$1.6 million[47]) across more than ten years to develop its own waterless dyeing technology. Since its first iteration in 2014, this technology has saved 95% of the water conventionally used in the dyeing process and consumes over 60% less water across all its production processes.[48]

These new fabrics not only enhance the performance of apparel and reduce the carbon footprint of apparel production but also reduce dependence on traditional raw materials, thereby reducing fluctuations in the global apparel supply chain. The key hurdles for adopting new materials are the fabrics' high costs and the fashion industry's lack of genuine commitment to changing its mindset and manufacturing practices.[49] Therefore, even with a projected compound annual growth rate (CAGR) of 80% between 2022 and 2026, these next-generation materials will account for only 3% of the fabric market by 2026.[50] The good news is that significant investments have been made in these new materials since the 2020s, which may help remove these hurdles. Participants in the apparel supply chain must be prepared for these emerging trends because key breakthroughs in the industrialization of these new materials may be achieved in an explosive manner in the coming years, creating brand-new apparel supply chains at a fast pace

2.5 ESG to shift from an overarching aspiration to an actionable framework

ESG (Environmental, Social, and Governance) is a framework used to evaluate how responsible and sustainable a company (or investment) is beyond just financial profits. It helps investors, regulators, and stakeholders assess non-financial risks and opportunities that could impact long-term value.

The textile and apparel industry has the fourth highest impact on the environment and climate change, after food, housing, and mobility[51], and is a major employer in developing countries. Due to its environmental footprint and labour-intensive nature, it has long been scrutinized by environmentalists and labour rights groups focused on safe working conditions and fair wages. In the past, many well-known brands based in Europe and the US launched sustainability initiatives and advocated for others in the industry to follow suit. Many non-governmental organizations have also called for actions. Over the last few years, there has been a surge in proposed bills and regulations concerning ESG issues in the industry. This indicates a transition in the apparel industry from voluntary self-regulation to mandatory standards for sustainable practices.

[47] Using the official annual average exchange rate in 2014: US$1 = RMB 6.1428 (National Bureau of Statistics, PR China).

[48] "Esquel Group's Waterless Dyeing Technology is recognized by Ministry of Science and Technology of the PRC," January 11, 2022, https://www.esquel.com

[49] Amy Miles, "The Most Promising Fabric Innovations in Sustainability in 2024," May 27 2024, https://goodonyou.eco.

[50] Suz Okie, "These materials are replacing animal-based products in the fashion industry," October 6, 2021, www.weforum.org

[51] "Factsheet: Extended Producer Responsibility for textiles," European Commission, July 5, 2023, https://ec.europa.eu.

However, battered by geopolitical and economic tremors, the global sustainability landscape today is quite different from a decade ago when the Paris Climate Change Pact was signed. Government officials are torn between pursuing sustainable objectives and managing immediate crises, while businesses are grappling with prioritizing short-term survival against committing to long-term ESG investments. ESG itself is criticized by some as relying on vague and subjective metrics that can facilitate greenwashing. In the US, some political leaders are advocating anti-ESG legislation to counter what they view as its excessive influence on market dynamics.[52]

Despite these setbacks, global adherence to ESG principles is not waning but is steadily moving towards a more practical and action-oriented direction. As Esquel China's Chairman, Mr. Calvin Tsang, noted during our visit to *Integral*, Esquel's sustainable development garden,[53] 'Sustainability is about our long-term survival, so we remain committed to it, regardless of the challenges our company faces.'

The EU is a pioneer in formalizing, regulating and operationalizing ESG. The *EU Taxonomy for Sustainable Activities*, effective in 2020, provides a standardized classification system to define environmentally sustainable investments, a global first. The *Sustainable Finance Disclosure Regulation* (SFDR), effective in 2021, mandates financial institutions to disclose how they integrate ESG factors into investment decisions. The *Corporate Sustainability Reporting Directive* (CSRD), effective from 2024 and replacing the *Non-Financial Reporting Directive* (2014), requires comprehensive, audited sustainability reporting for about 50,000 companies[54] operating in or closely tied to the EU, setting a global standard for corporate accountability and ESG transparency. Specifically, the rollout of the Digital Product Passport (DPP) in 2024 represents a pragmatic step towards operationalizing ESG, strengthening legal compliance and simplifying and optimizing processes across the entire value chain. The DPP is a digital record—often accessed via a QR code or NFC (Near Field Communication) tag—that provides comprehensive, verifiable data on a product's environmental impact, materials composition, durability, repairability, and end-of-life recyclability. It is part of *the Ecodesign for Sustainable Products Regulation* (ESPR), which was unveiled in 2022 and entered into force in July 2024.[55] It aims to foster a circular economy by enabling consumers, businesses,

[52] "Live Anti-ESG State Action Tracker," Pleiades, accessed 21 November 2025, https://www.pleiadesstrategy.com/pleiades-anti-esg-bill-tracker-state-legislation-attacks-on-responsible-investing.

[53] Integral is Esquel's Sustainable Development Garden in Guilin, China—one of the country's first "Zero Carbon Park" that demonstrates a pioneering development model in the textile and apparel industry. It combines cultural heritage, quality employment, innovative thinking, and environmental sustainability to showcase how manufacturing and nature can coexist in perfect harmony.

[54] "Proposal for a DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL amending Directive 2013/34/EU, Directive 2004/109/EC, Directive 2006/43/EC and Regulation (EU) No 537/2014, as regards corporate sustainability reporting," Document 52021PC0189, European Commission, April 21, 2021, https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:52021PC0189.

[55] "Ecodesign for Sustainable Products Regulation," European Commission, accessed October 10, 2025, https://commission.europa.eu.

and regulators to make informed decisions that reduce waste and resource consumption.[56] It will be implemented in phases, and by 2030, all products on the EU market—except food, feed and medicinal products—will be required to enable DPPs.

Given its substantial environmental and social footprint, the apparel industry is often a primary focus of these ESG regulations. For example, as early as 2021, the European Commission proposed the *Waste Shipment Regulation* to restrict the export of textile waste. This was followed by the ESPR in 2022, the *Empowering Consumers in the Green Transition Directive* in 2022, and the *Green Claims Directive* along with a revision to the *Waste Framework Directive* in 2023,[57] which introduced mandatory and harmonized extended producer responsibility schemes requiring fashion brands and textile producers to pay fees to help fund textile waste collection and treatment.[58] The first stage of implementation of the DPP initiative covers the textile industry. The delegated act for textiles will be published in 2026, and all textile and apparel products manufactured in or placed on the EU market—including those exported to the EU—will be subject to DPP regulations.[59] Alongside these legislative efforts, the EU specifically launched the *Strategy for Sustainable and Circular Textiles* (SSCT) in March 2022 to reinvent the full lifecycle of textile products. This strategy is gradually being incorporated into both new and existing regulations, becoming a cornerstone of the EU's broader push to establish a circular economy across industries.

To put a fair price on the carbon emitted during the production of carbon-intensive goods entering the EU and to encourage cleaner industrial production in non-EU countries, the EU, since 1 October 2023, has placed a levy on imported carbon-intensive products through the Carbon Border Adjustment Mechanism (CBAM). This mechanism has a transitional phase from 2023 to 2025 and a definitive regime starting in 2026. The CBAM initially applies to imports of certain goods and selected precursors whose production is carbon-intensive and at significant risk of carbon leakage, such as cement, iron and steel, aluminium, fertilizers, electricity, and hydrogen. When fully phased in, it will capture more than 50% of the emissions in sectors covered by the EU Emissions Trading System (ETS)[60]. Experts at Li & Fung, a leading apparel supply chain management company, anticipate that textiles and garments, a carbon-intensive sector, could face CBAM levies after its scope expands post-2026. In light of these situations, sourcing agents and manufacturers in the textile and apparel sectors must undertake sustainability initiatives now to improve compliance with ESG requirements in order to maintain a competitive edge in the global supply chain.[61]

[56] "EU's Digital Product Passport: Advancing transparency and sustainability," European Union, September 27, 2024, https://data.europa.eu/en/news-events/news/eus-digital-product-passport-advancing-transparency-and-sustainability.

[57] "EU strategy for sustainable and circular textiles," European Commission, accessed 10 October 2025, https://environment.ec.europa.eu.

[58] "Waste framework directive: Council set to start talks on its revision," European Council, June 17, 2024, www.consilium.europa.eu.

[59] "Paving the Roadmap for EU Digital Product Passport: Textile & Apparel Industry," GS1 Hong Kong, 2025.

[60] "Carbon Border Adjustment Mechanism," January 7, 2025, https://taxation-customs.ec.europa.eu.

[61] "Executive Summary," *Country Sourcing Report* 2023, Fung Business Intelligence.

In the US, ESG efforts have faced setbacks in recent years, but progress continues at state and federal levels, with several bills under review. For example, California enacted the *Responsible Textile Recovery Act* in 2024 (effective 2025) for textile extended producer responsibility (EPR), requiring brands to fund recycling and reuse programs,[62]and introduced the *Fashion Environmental Accountability Act* in 2025 for emissions reporting, signalling a growing state-level push for fashion sustainability.[63] New York proposed the *Fashion Sustainability and Social Accountability Act* in 2022*,* requiring fashion sellers to adhere to standardized environmental due diligence policies and establishing a fashion remediation fund.[64] The bill was reintroduced in 2023 and again in February 2025, and is currently under review in the Assembly Committee on Consumer Affairs and Protection.[65] If ultimately signed into law, the Act would require apparel, footwear, and handbag companies operating in New York and with more than US$100 million in annual global revenue to remap their entire supply chains to ensure they meet environmental and human rights standards. Companies would also be required to publicly disclose adverse impacts and implement targeted reduction strategies, making supply chain transparency and sustainability a legal obligation.[66]

In the UK, the UK Fashion and Textile Association (UKFT) released the *National Textile Recycling Infrastructure Plan* on 29 September 2025,[67&68]a framework designed to guide the country towards a circular textile economy by 2035.

China, a dominant player in the global apparel value chain, has taken on growing responsibilities in the global ESG landscape. In September 2020, President Xi Jinping announced China's 'dual carbon' goals at the United Nations General Assembly—to peak carbon dioxide emissions before 2030 and achieve carbon neutrality before 2060.[69] These goals were then embedded in national strategy, including the 14th Five-Year Plan (2021–

[62] "SB-707 Responsible Textile Recovery Act of 2024.(2023-2024)," California Legislative Information, September 30, 2024, https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202320240SB707.

[63]"AB-405 Fashion Environmental Accountability Act of 2025.(2025-2026)," California Legislative Information, May 1, 2025, https://leginfo.legislature.ca.gov/faces/billTextClient.xhtml?bill_id=202520260AB405.

[64] Ashish Rohil, "Sustainable Fashion: How Regulations are Reshaping the Fashion Industry," October 26, 2023, www.linkedin.com; "Senate Bill S4746A", 2023-2024 Legislative Session, The New York State Senate， accessed 21 November 21, 2025, www.nysenate.gov; "A Look into the New York Fashion Sustainability and Social Accountability Act," Keramida, March 25, 2024, https://www.keramida.com/blog/a-look-into-the-new-york-fashion-sustainability-and-social-accountability-act.

[65] "Assembly Bill A4631B," 2025-2026 Legislative Session, The New York State Senate, February 4, 2025, https://www.nysenate.gov/legislation/bills/2025/A4631/amendment/B.

[66] "Is the New York Fashion Sustainability and Social Accountability Act Gaining Steam?" April 11, 2024, Michelman & Robinson, www.mrllp.com;

"New York's Fashion Sustainability and Social Accountability Act – Round 2 Underway," Lupo, Anthony et al., July 17, 2023, *The National Law Review*, https://natlawreview.com/article/new-york-s-fashion-sustainability-and-social-accountability-act-round-2-underway.

[67] "UKFT Drops Outline for National Textile Recycling Infrastructure Plan," Alexandra Harrell, *Sourcing Journal*, October 3, 2025.

[68] "UKFT unveils National Textile Recycling Infrastructure Plan," the UK Fashion and Textile Association, September 29, 2025, https://ukft.org/national-textile-recycling-infrastructure-plan/.

[69] "Full text of Xi's statement at the General Debate of the 75th Session of the United Nations General Assembly," The State Council Information Office, September 23, 2020,http://english.scio.gov.cn/topnews/2020-09/23/content_76731466.htm.

2025), as part of China's broader push for ecological civilization and high-quality economic growth.

The textile and apparel sector is taking the lead. According to the China National Textile and Apparel Council (CNTAC), carbon emission intensity—measured as emissions volume per unit of sales revenue—fell by over 60% between 2005 and 2022, with a further 14% decline among leading domestic apparel enterprises in 2023-24 alone.[70] CNTAC's 2023 *Action Plan for Building a Modern Textile Industry System (2022–2035)* aims for water reuse rates of 55% in dyeing (currently 40–50%) and 80% in water-jet weaving (currently 50–60%), and green fibre processing of over 35% by 2035 (currently 20–30%). The plan prioritizes ESG disclosure, evaluation, and investment for listed and pre-listed companies. The CSC9000T, launched by CNTAC in 2005 and last updated in 2021, aligns with evolving sustainability standards to drive responsible practices.

Internationally, Chinese apparel practitioners promote ESG through partnerships. For example, in 2016, CNTAC collaborated with seven industry organizations from Bangladesh, Cambodia, Myanmar, and Pakistan to sign the *Declaration on Regional Cooperation and Governance for Responsible Supply Chains in the Asian Textile and Apparel Industry*, advocating sustainable practices across Asia's textile value chain. In 2017, nine organizations from six Asian production countries (China, Myanmar, Cambodia, Bangladesh, Vietnam, and Pakistan) formed the Sustainable Textiles of the Asian Region (STAR) Network, the first regional alliance of textile and apparel producer organizations for sharing sustainability standards, fostering innovation, and advancing gender equality. In 2022, CNTAC signed a memorandum of understanding with Ethiopia's Manufacturing Development Institute to enhance Chinese-invested firms' capacity in labour relations, gender equality, and cross-cultural management.[71]

A clear trend is emerging: apparel supply chains will be under increased scrutiny due to incoming regulations that demand higher environmental protection standards from textile production to apparel waste disposal. Apparel retailers, brand owners, apparel and textile suppliers and producers, and even apparel consumers around the globe need to revamp their business models and consumption behaviours to comply with these new environmental rules.[72]

Sourcing managers, especially those targeting the EU and US markets, must now embed ESG considerations in their location choices and educate their suppliers on complying with ESG regulations to avoid fines or loss of market share. Supply chain players offering sustainable

[70] Zhu Wenqian, "Textiles weaving green prospects with high-tech", China Daily, July 3, 2025, https://usa.chinadaily.com.cn/a/202507/03/WS6865e301a31000e9a5739e13.html.

[71] Liang Xiaohui, "Promoting Gender Equality in Overseas Investment: Practical Experience of China's Textile and Apparel Industry," China Society for Human Rights Studies, January 10, 2024.https://www.humanrights.cn/2024/01/10/c93c5cf3a8e84a43bec402752cc39714.html.

[72] McKinsey & Company, "The State of Fashion 2024," November 29, 2023. www.mckinsey.com.

products without compromising on performance, quality, or price are poised to gain a first-mover advantage, although such practices are likely to become standard in the future.[73] While some ESG regulations raise concerns about ESG justice as they may disproportionately burden developing and even poor countries in the apparel supply chain,[74] apparel industry leaders in Hong Kong have been coordinating with policymakers on one hand and investing in capacity-building initiatives on the other to support their suppliers in meeting ESG requirements. This is the kind of proactive approach industry leaders should continue to adopt to tackle supply chain challenges effectively.

V. Conclusion

In this analysis, we examined the current status of the global apparel supply chain by identifying the locations of leading players across key segments: consumer markets, importers, retailers, apparel exporters, textile exporters, raw textile materials exporters, and apparel and textile machinery exporters. The US and China are the world's two largest apparel consumers, while the EU and the US are the world's two largest apparel importers. On the supply side, China dominates the global apparel supply chain—it is the leading exporter of clothing, textiles, and apparel and textile machinery, and the third-largest exporter of raw textile materials. Countries in Southeast Asia, and to a lesser extent South Asia, are also strong exporters along the apparel supply chain.

We found that the increasingly complex sourcing environment and worsening global geopolitical landscape are forcing more apparel companies and retailers to adopt a sourcing diversification strategy, specifically aiming to relocate out of China, the dominant supplier in the global apparel supply chain. However, China will continue to dominate the apparel supply chain but its role will transition from being a direct apparel exporter to also becoming an intermediate component provider and a significant investor in other apparel manufacturing bases. Meanwhile, Southeast and South Asian economies are becoming the new apparel sourcing bases due to their relatively abundant and low-cost labour force. The apparel nearshore bases for the US and European markets need more time to gain significance in the apparel supply chains.

We predict that new technologies will continue to play a crucial role in shaping the industry's future. We identified three key themes in the upcoming technology competition within the global apparel supply chain: the growing application of AI throughout the apparel value chain, innovative fabrics and the innovative use of fabrics, and continuous automation in apparel manufacturing. Specifically, the rapid advancement and maturation of AI

[73] McKinsey & Company, "Reimagining the apparel value chain amid volatility," May 24, 2024, www.mckinsey.com.

[74] "European Union's Carbon Border Adjustment Mechanism puts a disproportionate burden of decarbonization on developing countries," Centre for Science and Environment, July 18, 2024, www.cseindia.org.

technologies are not only enhancing productivity and profitability but also creating a sense of urgency across the sector to adopt AI solutions quickly. Meanwhile, the rapid advancements in Chinese apparel and textile machinery, together with the global investments made by Chinese apparel firms, further facilitate the adoption of automation in textile and apparel production. Chinese brands are not just 'Chinese alternatives' but are often the first choice for cost-conscious and efficiency-driven factories worldwide.

We predict that the growing demand for sustainable, high-performance, and athleisure apparel is driving explosive innovation in functional fabrics. Advanced materials like moisture-wicking, thermal, and smart fabrics with health-monitoring sensors, alongside eco-friendly options such as recycled textiles and degradable fibres, enhance apparel performance while reducing environmental impact and reliance on traditional raw materials. Innovative dyeing technologies further support sustainability by significantly cutting water usage. Despite high costs and slow industry adoption, significant investments since the 2020s suggest that breakthroughs in next-generation materials may soon reshape apparel sourcing and production.

We also find that, despite ongoing geopolitical and economic challenges, global commitment to ESG principles remains strong and is steadily shifting toward more practical and action-oriented approaches. The EU continues to lead in formalizing, regulating, and operationalizing ESG, while China, as a dominant player in the global apparel supply chain, is assuming growing responsibilities in the ESG landscape.

Apparel industry leaders should pursue sourcing diversification rationally, harness technological innovations swiftly, and embrace ESG principles firmly, thereby gaining a first-mover advantage to build a resilient, intelligent, and sustainable global apparel supply chain.

Appendix 1. Chinese Apparel Firms Going Global

China ranks first in global apparel manufacturing and second in apparel consumption. After decades of economic reform and opening up, China has transitioned from a low-cost exporter to a leader in the global apparel supply chain, with a comprehensive apparel production ecosystem, a skilled workforce, and advanced production capabilities.

In fact, long before the rise of the modern global supply chain, China had already cultivated a rich legacy of textile innovation and craftsmanship. For thousands of years, Chinese artisans developed advanced weaving techniques, intricate dyeing methods, and luxurious fabrics like silk, which shaped global fashion, trade, and cultural exchange. This deep-rooted expertise laid the foundation for China's reemergence as the world's apparel powerhouse following its reopening to global markets in the 1980s.

Following the COVID-19 pandemic, Chinese firms saw a surge in 'going global', or '出海' in Chinese, a term that refers to expanding business into overseas market. However, this trend is not new for apparel companies, which began their global expansion long before the pandemic. The following sections outline three distinct stages in the apparel industry's 'going global' journey. Map A1 at the end of this section provides a visual representation of these stages.

Post-opening up (1980s–2007): Rise of a global apparel production powerhouse

In the first thirty years after its economic reform and opening up, China gradually evolved into a global low-cost apparel export base, primarily focusing on original equipment manufacturing (OEM) for world famous brands such as Adidas, Gap, Nike, and Uniqlo. Orders from major international clothing companies, skilled but low-cost workers, and government incentives drove China into the 'world's factory' for apparel, with firms mainly focusing on low value-added garment assembly in global supply chains.[75] During this era, Hong Kong played a pivotal role as an intermediary hub for investment, exports and sourcing. Hong Kong firms facilitated the sourcing of raw materials, managed logistics, and ensured quality control, bridging the gap between Chinese mainland factories and global markets.[76]

Not many Chinese apparel firms invested abroad during this period. Most of those 'going global' were state-owned enterprises (SOEs) providing economic aid to less developed countries, or large Chinese firms seeking to circumvent quotas and trade restrictions under

[75] "The Development of the China Apparel Industry," China Textile University and Harvard Centre of Textile and Apparel Research, 1999, https://projects.iq.harvard.edu/files/hctar/files/gs01.pdf

[76] Feng Bang-yan, *A Hundred Years of Li & Fung: Supply Network Orchestrator for Asia and Beyond* (Cengage Learning Asia Pte Ltd., 2012).

the Multifibre Arrangement or secure supplies of raw textile materials.[77] Sino-foreign joint ventures in developing countries also emerged in late 1980s, but numbered no more than 30 by the early 1990s.[78]

However, at this early stage, many Chinese textile and apparel artisans, equipped with sophisticated skills, began seeking employment opportunities abroad. A notable example is the migration of skilled textile workers from Wenzhou, Zhejiang Province, to Prato, Italy—a historic textile hub—who brought with them the speed and cost efficiency of fast fashion production that Italian factories lacked. By the late 1990s, thousands of Wenzhou workers had established a significant presence in Prato, working in local factories to produce high-quality garments for some of the world's leading luxury brands, such as Prada, Gucci, and Armani. This community not only contributed to Italy's fashion industry but also introduced Chinese manufacturing efficiency to European production, creating a unique blend of craftsmanship and scale. Nowadays, second-generation Chinese in the area have been taking over local firms or establishing their own factories and brands.[79]

Post-2008 financial crisis (2008–2017): Apparel firms following sourcing orders

The apparel industry is inherently cost-driven, characterized by low entry barriers and high sensitivity to labour and material costs. As China's apparel industry grew more competitive, labour and land costs rose sharply.[80] China also began enforcing more stringent environmental regulations in 2013, with polluting dyeing and printing plants as a primary target.[81]

The 2008 global financial crisis dealt a major blow to the world economy. Rising unemployment and shrinking household wealth forced consumers to cut back on non-

[77] The Multifibre Arrangement (MFA) was a framework that governed the global textile and garment trade from 1974 to 2005. It established quotas through bilateral agreements or unilateral actions to limit imports into countries whose domestic industries were facing serious damage from rapidly increasing imports. The quota measures restricted quantities and discriminated among trading partners by specifying how much the importing country would accept from individual exporting countries. (see details "Textile: Back in the mainstream," World Trade Organization, accessed November 20, 2025, https://www.wto.org/english/thewto_e/whatis_e/tif_e/agrm5_e.htm.

[78] For example, China provided equipment and technology to 62 factories in 36 countries from 1958 to 1990 through state-owned corporations. (See Zhang, Juxuan and Pierre-Yves Donze, "The internationalization of Chinese apparel companies, 1990-2020," Discussion Papers 24-05, April 2024, https://www2.econ.osaka-u.ac.jp/econ_society/dp/2405.pdf.

[79] Wang Mingjie and DJ Clark, "Chinese migrants make a future in Italy," *China Daily*, December 29, 2023, https://global.chinadaily.com.cn/a/202312/29/WS658e25caa31040ac301aa175_1.html

[80] For example, from 2008 to 2011, apparel workers' wages in Hangzhou—an important textile and garment city in eastern China—nearly doubled in Renminbi terms and more than doubled in US dollar terms due to the appreciation of the Renminbi in the same period. (See "After WTO Entry, Apparel Faces First Decline and Regains Cluster Advantage [服装出现入世后首次回落集聚优势再出手]," Beijing Garment and Textile Association, August 17, 2012, http://www.fashioncity.org.cn/sia/article/2126.html.)

[81] Michael Greenstone and Patrick Schwarz, "Is China Winning its War on Pollution?" March 2018, Energy Policy Institute at the University of Chicago, https://epic.uchicago.edu/wp-content/uploads/sites/5/2018/03/Publication.pdf

essential purchases—including clothing—switching to cheaper brands, discount retailers, or delaying purchases altogether.

This situation pushed apparel retailers and brand owners to search for lower-costs suppliers overseas.[82] Around 2010, major retail brands like Adidas, Nike, Under Armour, and Gap began shifting portions of their sourcing out of China to countries with lower operating and labour costs.[83] Countries in Southeast and South Asia, such as Cambodia, Vietnam, and Bangladesh, became alternative apparel sourcing bases.[84] Chinese apparel firms—mainly suppliers to these international apparel giants—began investing in these countries as well. Many well-established Chinese apparel and textile firms, including Texhong Textile Group, Youngor Group, Luthai Textile, Shenzhou International, Bros Textile Holdings, and Huafu Fashion, expanded to these countries.[85]

During this period, Vietnam became a particularly favourable destination for an additional reason—the ongoing negotiations of the Trans-Pacific Partnership (TPP), a multilateral trade agreement that included 12 countries at its peak: Australia, Brunei, Canada, Chile, Japan, Malaysia, Mexico, New Zealand, Peru, Singapore, Vietnam, and the US. Had the TPP taken effect, Vietnam—as one of the few developing Asian members—would have enjoyed duty-free access to the US market under the 'yarn-forward' rule of origin.[86] This potential advantage made Vietnam especially attractive to Chinese apparel firms for whom the US was a key export market.[87]

Between 2015 and 2018, China's outbound investment in apparel and garment industry is estimated to have reached US$6.2 billion, about six times that of 2005–2010,[88] with the Mekong Basin (Vietnam, Myanmar, Cambodia, Thailand, and Laos) as a key investment destination. Even in 2020, when China's textile and garment outward investment became

[82] Gary Gereffi and Stacey Frederick, "The Global Apparel Value Chain, Trade and the Crisis: Challenges and Opportunities for Developing Countries," The World Bank, 2010, https://openknowledge.worldbank.org/server/api/core/bitstreams/423a524c-4257-593b-a935-700bb7410e7d/content.

[83] Julia Waldow, "Brands said they would move manufacturing out of China, but the reality is more complicated," August 31, 2023. Modern Retail, www.modernretail.co.

[84] Xinhua News, "Facing New Opportunities and Challenges: Textile Industry Builds New Competitive Advantages [面临新的机遇和挑战 纺织行业锻造竞争新优势]," December 30, 2024, http://www.news.cn/fashion/20241230/2e8de8cb002d4abf9506cd625facab1f/c.html.

[85] Compiled from multiple news reports and annual reports of publicly listed companies.

[86] The US "yarn-forward" rule of origin is a key provision in the textile and apparel sector of US trade agreements. It requires that, for goods to receive duty-free or preferential tariff treatment, the yarn used to form the fabric (and all subsequent processes, such as weaving and knitting, cutting, sewing, and assembly) must originate in the FTA region or partner countries. Fibres may be sourced from anywhere, but stricter "fibre-forward" rules apply to certain items (e.g., cotton yarns, knit fabrics, or man-made fibre sweaters). As of 2025, the rule applies to 12 FTAs that the US signed, covering 20 countries including Canada and Mexico (under USMCA), Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, and Nicaragua (under CAFTA-DR), South Korea, Colombia, Panama, Peru, Chile, Singapore, Australia, Morocco, Bahrain, Oman, Israel, and Jordan.

[87] "Chinese firms to make investment in Vietnam textiles to take TPP benefits," YarnsandFibers News Bureau, March 15, 2014, https://www.yarnsandfibers.com/news/textile-news/chinese-firms-to-make-investment-in-vietnam-textiles-to-take-tpp-benefits/.

[88] Xu Yingxin. The Landscape of China's Textile Industry Outbound Investment [中国纺织业对外投资版图]. China Forex, Issue 17, 2019, http://www.chinaforex.com.cn/index.php/cms/item-view-id-48870.shtml.

more diversified,[89] the region still received 37% of the industry's US$735 million in investment, with Vietnam alone attracting US$170 million.[90]

Due to insufficient local upstream suppliers, Chinese-invested firms not only assembled garments in host countries, but also invested in spinning, weaving, dyeing, and fabric production. These facilities are usually located in large-scale local textile parks, or the Chinese firms themselves develop and manage these parks, increasingly attracting other Chinese apparel manufacturers to set up operations nearby.[91] For example, Texhong, a listed Chinese textile company that expanded its operations to Vietnam in 2006, began investing US$1 billion to build an industrial park of 3,300 hectares in Quang Ninh Province, Vietnam, in 2013, aiming to provide a platform for enterprises across the entire textile supply chain, from fibre to garments.[92]

Post-2018 trade war (2018–present): The rise of Chinese brands in a new MFA-like era

The China-US trade war that started in 2018 accelerated the relocation trend of Chinese apparel firms. Escalating tariff measures reminded veteran apparel practitioners of the old Multifibre Arrangement era in the last twenty years of the previous century, when producers and importers struggled with a maze of unequal and unpredictable quota barriers. More Chinese firms chose to voluntarily 'go global', with customers facilitating their establishment or acquisition of apparel factories in overseas production bases, or helping them set up manufacturing facilities in industrial parks that Chinese apparel companies invested in during previous waves of relocation. Besides Southeast Asian countries, Bangladesh in South Asia, and Egypt and Ethiopia in Africa, also became key destinations for Chinese firms due to their preferential—often duty-free—access to the EU and US markets.[93]

Meanwhile, the third wave of 'going global' represents far more than overseas manufacturing—it marks the rise of Chinese brands as global fashion players. By combining cost efficiency with creative design and leveraging social media and e-commerce, Chinese brands are building strong identities across markets from Europe to the Americas. Their

[89] CNTAC (Annual Report on CSR of China's Textile and Apparel Industry (2020-2021), p11, https://www.csc9000.org.cn/d/file/p/2023/02-03/5fb4334f00b3544813f68e8e4a869a96.pdf

[90] Industrial Economics Research Institute of China National Textile and Apparel Council (CNTAC), "Annual Report on CSR of China's Textile and Apparel Industry (2020-2021)," accessed 21 October 2025, https://www.csc9000.org.cn/d/file/p/2023/02-03/5fb4334f00b3544813f68e8e4a869a96.pdf.

[91] For example, both Tianhong Group and Youngor Group have invested in large-scale industrial parks in Vietnam, laying the groundwork for more Chinese textile and apparel enterprises to expand overseas. See Guo Wei and Sun Li, "Exploration and Reflections on China's Textile Industry Going Global [中国纺织业‘走出去’的探索与思考]," March 14, 2016, https://guoyancm.develpress.com/zxyj/cygh/1454.html

[92] "Texhong's Newest Phase of Spinning Project in Vietnam Goes into Full Operation," Texhong Textile Group, 11 February 2019. http://www.texhong.com/en/news/72-Texhongs-Newest-Phase-of-Spinning-Project-in-Vietnam-goes-into-Full-Operation

[93] Bangladesh benefits from the EU's Everything But Arms (EBA) and US Generalized System of Preferences, while Ethiopia enjoys the EU's EBA and US African Growth and Opportunity Act (AGOA).

competitiveness is driven by genuine improvements in product quality, advanced manufacturing capabilities, and design innovation, underpinned by a deepening understanding of international consumer preferences and a resurgence of domestic pride in homegrown brands.

Selling clothes with one's own brands has always been Chinese apparel firms' dream. Many veteran firms chose to establish the fame of their brands step by step with a solid foundation—focusing on incremental innovation, domestic market dominance, and selective international exposure. For example, Bosideng, China's leading down jacket brand founded in 1976,[94] built its reputation by prioritizing quality and first establishing a strong presence in the domestic market. Positioning itself as a premium outerwear brand, it then expanded internationally by entering markets in Europe and North America through opening flagship stores and collaborating with local retailers. The brand gained significant attention by participating in major fashion events like Paris Fashion Week, which helped showcase its latest collections to a global audience. EXCEPTION de Mixmind, a pioneering Chinese contemporary fashion label established in 1996[95], took a similar path but stands out with its unique design aesthetic and full awareness of sustainable practices, building a distinct brand identity that appeals to a growing segment of environmentally conscious consumers. It has built international recognition by participating in fashion events, collaborating with influencers, opening stores in key fashion capitals, and working with global e-commerce platforms. The brand incorporates elements of Chinese culture into its designs and marketing, which resonates with both local and international audiences, enhancing its brand story.

In parallel, some Chinese firms have pursued a quicker path to brand recognition by acquiring established international labels. A notable example of this strategy is ANTA Sports, China's leading sportswear company, which has leveraged acquisitions to enhance its brand presence. In 2009, ANTA acquired FILA's China operations, transforming the brand from less than RMB 100 million (US$13.7 million) in revenue to over RMB20 billion (US$2.7 billion) by 2021.[96] Its 2019 acquisition of Amer Sports has further propelled ANTA's international sales. In the years following the acquisition, ANTA has driven the group's revenue growth of 18% to US$5.18 billion, with Arc'teryx alone achieving 36% growth, reinforcing ANTA's position as a leading global sportswear powerhouse. In 2025, ANTA further expanded its outdoor

[94] "Brand https://www.bosideng.com/en "Brand History," Bosideng, accessed 30 October 2025, https://www.bosideng.com/en

[95] Company website, accessed 30 October 2025, http://www.mixmind.com/

[96] Liu Xiaoying, "Fila China's President to Retire Soon, Anta Sports Says," *Yicai*, January 22, 2025, https://www.yicaiglobal.com/news/fila-chinas-president-to-step-down-soon-country-vendor-says.

portfolio by acquiring the German brand Jack Wolfskin, solidifying its position in key markets such as Europe and China.[97]

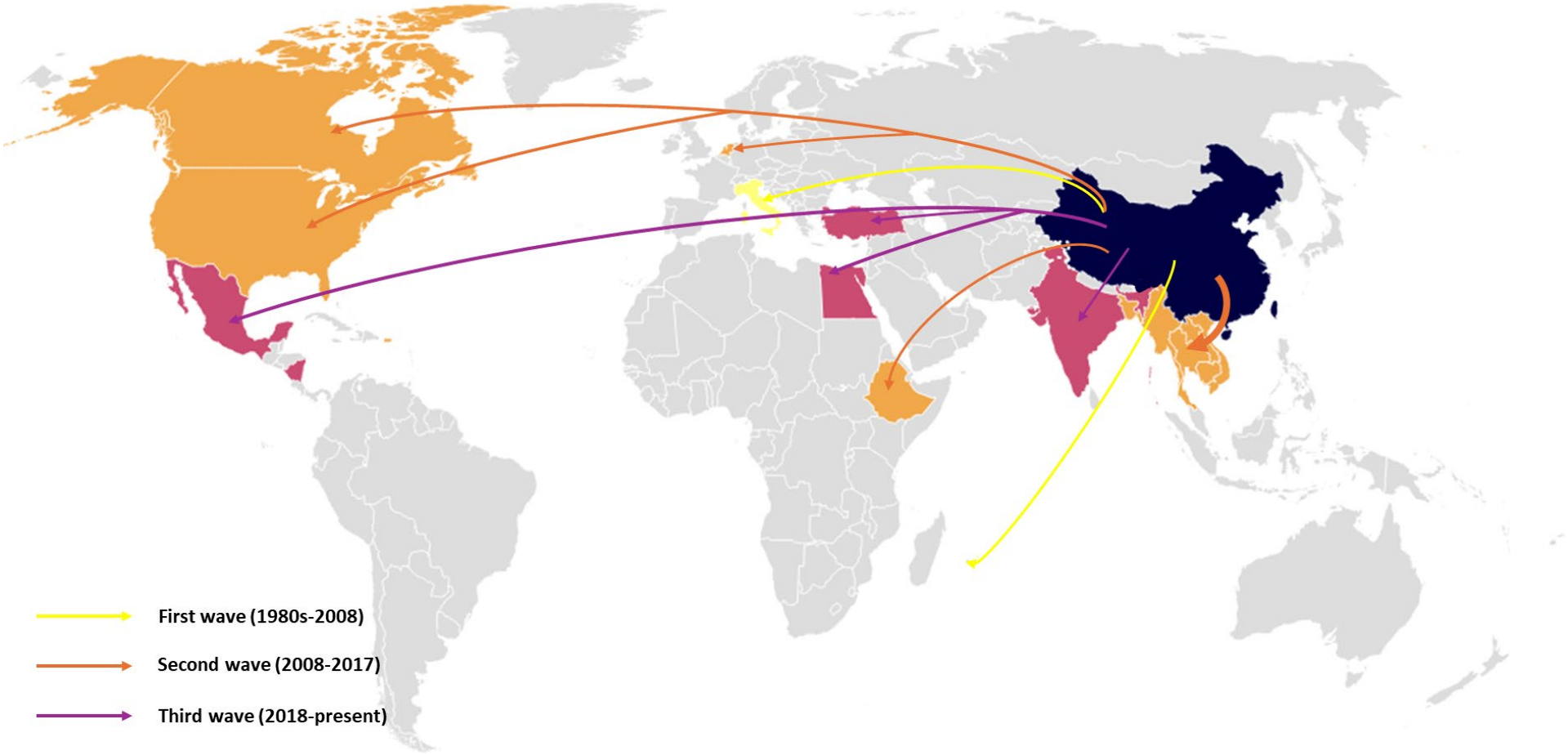
A new generation of Chinese fashion brands that grew up in the internet era—especially women's apparel brands such as BloomChic, ChicMe, Cider, Commense, Cupshe, Shapellx, Urban Revivo, and Urbanic—are skilled at fusing fast fashion with social media marketing and e-commerce platforms to broaden their global presence. These brands leverage cultural resonance, design innovation, and strong identity-driven appeal, along with a keen sense for niche market opportunities, to attract targeted customers across developed and emerging economies.[98]

Looking ahead, more Chinese firms are expected to move beyond their OEM roots and transform into aspirational lifestyle brands. By leveraging digital-first strategies, sustainability initiatives, and cultural storytelling, Chinese brands are poised to become a powerful force on the consumption and retailing side of the global apparel supply chain.

[97] Wang Zhuoqiong, "ANTA buys German brand Jack Wolfskin for $290m," *China Daily*, April 10, 2025, https://www.chinadaily.com.cn/a/202504/10/WS67f7afd7a3104d9fd381e9f9.html.

[98] Wang Xiaohan, "The New Decade of Chinese Women's Apparel Going Global [中国女装出海新十年]," October 2025, https://www.cifnews.com/article/179805.

Map A1. Three waves of Chinese apparel firms going global



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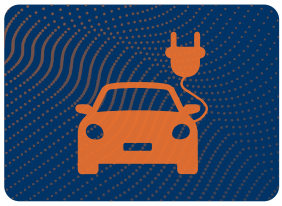
Our Global Supply Chain Analysis by Industry



Electric Vehicle

Expansion and Diversification: Securing EV Supply Chains Amid Global Fragmentation

Solar PV

Where the Sun Shines: The Changing Landscape of the Global Solar Supply Chain

Apparel

Threading a Green and Intelligent Tapestry:
The Apparel Supply Chain Landscape in a Turbulent World

Medical Device

The Evolving Landscape of Global Medical Devices:
Supply Chain Resilience and Innovation

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