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The Textiles OBSERVER

The Business of Garments

Global Trade and Fiber Dynamics



How to Manage
**Stickiness and Seed
Coat Fragments**

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From Fiber Quality to Global Competition

The cotton and textile industry is changing on several fronts at the same time. Markets are shifting, manufacturing competitiveness is being redistributed, fibers are competing more intensely within the same applications, and expectations surrounding quality and processing performance continue to rise. This edition of the Textiles Observer reflects several of these changes—from the global business of garments to challenges beginning much earlier in the cotton value chain.



Kanwar Usman
Head of Textiles



**INTERNATIONAL
COTTON
ADVISORY
COMMITTEE**

In my article, “The Business of Garments” (see page 4), I look at how almost two decades of trade have reshaped the global garment industry. World textiles exports increased from approximately US\$560 billion in 2006 to US\$914 billion in 2025, while knit and woven garments together came to represent nearly 60% of global textiles exports. But perhaps the more interesting story is not simply the growth of the market—it is the changing geography of competitiveness. China remains the largest supplier, but Bangladesh and Viet Nam have emerged as major forces, while the geography of consumer demand has simultaneously become much broader.

For cotton, the message is equally important. Cotton continues to occupy some of the largest individual product markets in world apparel—Cotton T-shirts, Cotton Jerseys, and Men’s and Women’s Cotton Trousers & Shorts among them. Yet competing fibers are expanding more rapidly in many applications. The longer-term fiber numbers are striking: cotton represented approximately 68.3% of global fiber demand in 1960, compared with 21.1% in 2025, while synthetic fibers increased from 4.6% to 71.7%. So the issue is not disappearing demand; it is relative competitiveness and the ability to capture future growth.

Competitiveness, however, does not begin at the garment factory. It begins with the quality and consistency of the fiber entering the value chain. This is why Dr. René van der Sluijs' contribution on sticky cotton and seed-coat fragments (see page 97) is particularly relevant. His article reminds us that contamination is not simply a technical matter: stickiness can affect processing efficiency, yarn quality, costs and even the commercial reputation of cotton from particular origins. In some cases, cotton associated with stickiness can face substantial discounts or become extremely difficult to process.

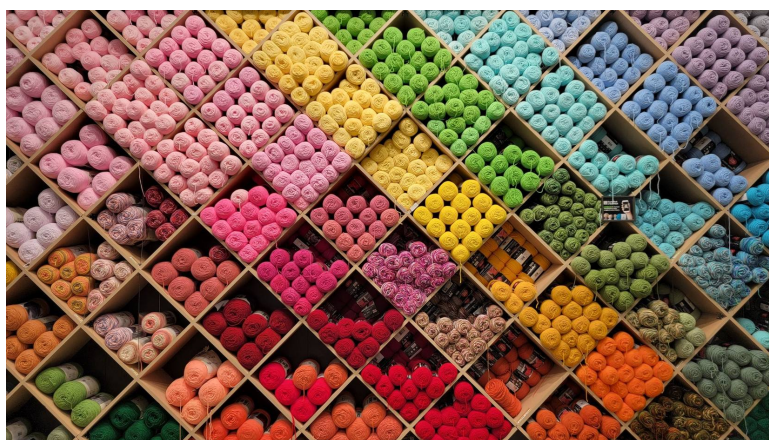
Seed-coat fragments present another challenge. They can contribute to spinning end-breakages, increase production costs and ultimately appear as visible defects in dyed fabrics. Dr. René also highlights an important practical reality: many of these problems are difficult to remove once the cotton has entered processing, reinforcing the importance of prevention, appropriate farm and ginning practices, measurement and quality management throughout the chain.

There is an important connection between these two articles. At one end of the chain, cotton is competing for market share against rapidly expanding alternative fibers. At the other, seemingly small issues in fiber quality can influence efficiency, cost and the performance of the final product. Cotton's future competitiveness will therefore depend not on one intervention, but on strengthening the entire journey from fiber to finished product.

And there is much more ahead.

Through the Global Cotton and Textiles Investment Summit (GCTIS), we are working on something very significant for the global cotton and textiles community. I will deliberately not say too much at this stage, except that we intend to come forward with something very big—something the world will see.

The opportunity before cotton is substantial. The market is there, the value chain is evolving, and the competition is becoming stronger. Our challenge is to ensure that cotton evolves with it—from the quality of the fiber to the competitiveness of the final garment.



Kanwar Usman
ICAC Head of Textiles

The Business of Garments: Global Trade and Fiber Dynamics

By Kanwar Usman

ICAC Head of Textiles and Editor of The Textiles Observer

This report examines the transformation of global garment trade between 2006 and 2025 across knitted and woven garments. It analyzes trade growth, export and import markets, product structures, competitiveness, and fiber composition, with particular attention to cotton's changing competitive position within the global garment economy.

Executive Summary

Global garment trade has undergone a profound transformation over the past two decades. Between 2006 and 2025, world textile exports increased from approximately US\$560 billion to US\$914 billion, but growth was highly uneven across products, fibers, and countries. Knitted garments emerged as one of the strongest components of this expansion, with exports rising from US\$145.2 billion to US\$289.1 billion and their share of world textile exports increasing from 25.9% to 31.6%. Woven garments also expanded substantially, from US\$158.5 billion to US\$257.7 billion, but their share of textile trade remained broadly unchanged at around 28%. Woven garments were larger than knitted garments in 2006; by 2020, that relationship had reversed. Together, knitted and woven garments accounted for nearly 60% of world textile exports in 2025 and generated approximately 69% of the net increase in textile trade over the period.

The geography of this trade has changed just as significantly. China remains the largest garment exporter, but its dominance has weakened in many major product categories as Bangladesh, Viet Nam, Cambodia, Pakistan, and other suppliers have gained competitive position. Bangladesh and Viet Nam have been particularly important, moving from relatively modest positions in 2006 to become major global garment exporters, while Poland has emerged as an important European trade and distribution center. The result is not a simple decline of China, but a redistribution of competitive advantage across a new group of leading suppliers. In several categories, the broader supplier base has become more concentrated even as China's individual share has declined.

Demand has moved in the opposite direction. Across both knitted and woven garments, import markets have generally become more geographically dispersed. The USA remains the largest buyer in many product categories, but its share has fallen sharply, and in some markets its absolute imports are now below their 2006 level. Germany, Spain, Poland, the Netherlands, the Republic of Korea, China, and a wider group of medium-sized markets have gained importance. In several major products, a remarkably large share of net demand growth has occurred outside the fifteen leading import markets. The global garment economy is therefore developing an increasingly distinctive structure: export supply is comparatively concentrated, while purchasing power is distributed across a widening range of destination markets.

The transformation is equally important at the product level. In knitted garments, Jerseys & Pullovers, T-shirts, and Women's Suits & Trousers remain the dominant categories and together generated approximately 61% of net export growth. At the six-digit level, however, the competitive shift becomes much clearer. Cotton T-shirts

remain the single largest knitted product, and Cotton Jerseys remain enormous markets, but man-made and synthetic fiber products have expanded faster across many applications. Women's Synthetic Trousers & Shorts, Men's Synthetic Trousers & Shorts, Man-made Fiber Jerseys, and Non-Cotton T-shirts are among the categories that have gained substantial market share.

This fiber shift is even more pronounced in woven garments. Cotton-based woven garment exports increased from approximately US\$70.8 billion in 2006 to US\$89.5 billion in 2025, demonstrating that cotton remains a large and growing business. Its share, however, fell from 44.8% to 34.9%. Over the same period, man-made and synthetic woven garment exports increased from US\$35.4 billion to US\$100.5 billion, raising their share from 22.4% to 39.2%. Man-made and synthetic fibers generated approximately two-thirds of all net growth in woven garment exports and overtook cotton in absolute export value in 2021. In knitted apparel, cotton retains a stronger position, accounting for approximately 44.5% of exports in 2025 compared with about 34.4% for man-made and synthetic fibers; in woven apparel, that relationship has already reversed.

The six-digit product analysis nevertheless demonstrates that cotton continues to possess extraordinary commercial strength. Men's and Women's Cotton Trousers & Shorts remain the two largest individual woven garment products in world trade, while Cotton T-shirts and Cotton Jerseys remain among the largest knitted products. Some cotton categories, including Women's Cotton Dresses, have increased both export value and market share, and several cotton products recorded renewed growth after 2023. The evidence therefore does not indicate disappearing demand for cotton. It shows that cotton is participating in an expanding garment market but is not growing as quickly as competing fibers in many major applications.

The country-level analysis also reveals that competitiveness within cotton garments has been radically reordered. Bangladesh has become the world's largest exporter of Men's Cotton Trousers & Shorts, increasing its share from 7.1% in 2006 to 25.3% in 2025 and generating approximately 64% of the entire net increase in global exports of the product. In Women's Cotton Trousers & Shorts, China remains No. 1 with approximately 27.7% of world exports, but Bangladesh has risen to 17.9%, while Viet Nam, Poland, Cambodia, and Spain have strengthened rapidly. In Cotton T-shirts, Bangladesh has also overtaken China to become the largest exporter. These changes demonstrate that strong demand for cotton products can coexist with major shifts in the location of competitive manufacturing and export capability.

Demand for these cotton products is simultaneously becoming much more diversified. In Men's Cotton Trousers & Shorts, the share of the fifteen leading import markets declined from approximately 84.5% in 2006 to 74.6% in 2025, while almost 47% of all additional demand came from markets outside this group. In Women's Cotton Trousers & Shorts, the global market expanded only modestly over the full period, yet its geography changed dramatically: the USA lost more than US\$2 billion of annual imports and over 11 percentage points of global share, while Spain, Poland, Germany, the Netherlands, and other markets gained. This is not simply a story of market growth; it is a large-scale geographical redistribution of purchasing power.

Taken together, the evidence shows an industry being reshaped along three dimensions at once: the geography of supply is changing, demand is spreading across a wider range of markets, and fiber competition is intensifying within the same garment applications. Cotton remains deeply embedded in the global garment economy and continues to command some of its largest individual product markets. Its central challenge is therefore not absolute contraction, but relative competitiveness. The strategic question is whether cotton can grow as fast as the garment market around it—and whether innovation, product development, performance, sustainability, processing efficiency, and market positioning can enable it to capture a greater share of the industry's future growth.

World Economic Review

The global economy has moved through an unusually turbulent period since the pandemic. The strong rebound of 2021 was followed by supply disruptions, rising commodity prices, inflation, tighter financial conditions, and heightened geopolitical uncertainty. Global growth subsequently slowed and stabilized at around 3.2% during 2023–2025, while inflation eased from its 2022 peak.

The recovery has also become increasingly uneven. The USA remained relatively resilient, growth in several European economies was weaker, China continued to play a major role in global trade despite softer domestic activity, and emerging Asian economies—particularly India—remained important sources of growth. These differences matter for garments because consumer demand is no longer expanding uniformly across traditional markets.

International trade has undergone a parallel transformation. Following the post-pandemic rebound, trade growth weakened as consumption shifted back toward services and trade barriers increased. By 2025, tariffs, industrial policy, geopolitical uncertainty, and the restructuring of supply chains had become increasingly important influences on global trade. Production and sourcing are becoming more geographically diversified, with companies adjusting trading relationships and supply networks in response to both economic and policy pressures.

For the garment industry, the result is a slower-growing, more uncertain, and more geographically differentiated operating environment. Demand, sourcing, and manufacturing decisions are increasingly shaped not only by economic growth and purchasing power, but also by tariffs, industrial policy, geopolitics, and changing supply-chain strategies.

From Fiber to Value: The Economics of Textile Transformation

Textiles transform raw materials into progressively higher levels of economic value. A fiber may leave an economy in raw form or move through spinning, weaving or knitting, dyeing and finishing, garment manufacturing, product development, branding, and distribution. Each additional stage creates opportunities for investment, technology, skills, employment, and export earnings.

For fiber-producing economies, the larger development opportunity therefore lies not simply in producing raw material, but in retaining more of its value chain domestically. In West and Central Africa, for example, around 98% of cotton is still exported as raw fiber, illustrating the scale of the unrealized opportunity for downstream processing.

The global fiber economy itself has been transformed. Total textile fiber demand increased almost eightfold, from 15.2 million tonnes in 1960 to 119.8 million tonnes in 2025. Cotton consumption more than doubled, from 10.4 million tonnes to 25.3 million tonnes, yet its share of global fiber demand fell dramatically from 68.3% to 21.1%.

The decisive change has been the rise of synthetic fibers. Their consumption increased from only 0.7 million tonnes in 1960 to 85.9 million tonnes in 2025, raising their share from 4.6% to 71.7%. Between 2006 and 2025 alone, global fiber demand increased by 50.6 million tonnes, of which approximately 46.4 million tonnes—about 92% of the entire increase—came from synthetic fibers, while cotton demand remained broadly unchanged.

Cotton's challenge is therefore not disappearing demand, but relative competitiveness. Cotton consumption has more than doubled in absolute terms since 1960, supported partly by population growth, yet per capita use

declined from 3.46 kg to 3.09 kg. Over the same period, non-cotton fiber consumption increased from 1.60 kg to 11.53 kg per person. Competing fibers have captured most of the incremental growth in the textile market.

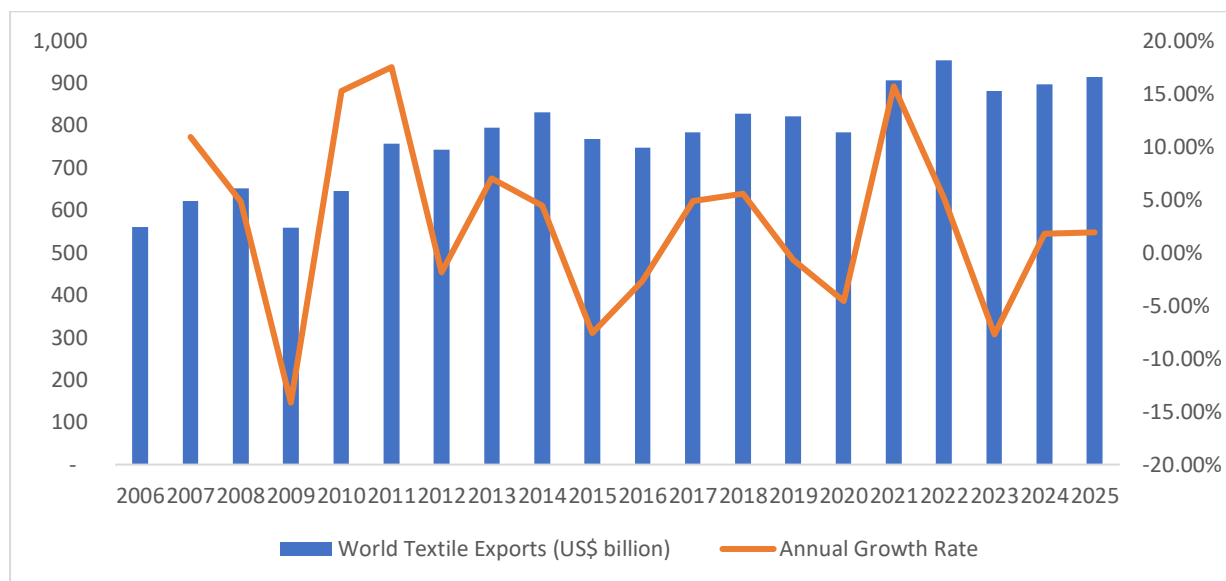
The importance of this transformation extends beyond trade. Textiles and clothing employ more than 90 million people worldwide, with women representing a particularly large share of the garment workforce. For many developing economies, garments have provided an entry point into manufacturing, exports, skills development, and global value chains. The next challenge is to move beyond low-value assembly toward higher-productivity manufacturing, technology, product development, and stronger industrial capabilities.

It is at the garment stage that fiber competition, value addition, and industrial capability ultimately meet the consumer. HS 61 and HS 62 represent this downstream end of the value chain, covering knitted and woven apparel. Yet the fiber transition has not affected them equally: cotton retains a stronger position in knitted apparel, while man-made and synthetic fibers overtook cotton in woven apparel in 2021. This difference provides an important lens for the garment trade analysis that follows.

World Textile Exports: Two Decades of Expansion and Disruption

World textile exports increased from approximately US\$560 billion in 2006 to US\$914 billion in 2025, adding more than US\$350 billion to global trade. This represents cumulative growth of about 63% and a compound annual growth rate of 2.61%. The long-term trajectory has been upward, but repeated economic shocks, the pandemic, and subsequent trade corrections have made that expansion highly uneven.

Table 1: World Textile Exports and Annual Growth



World textile trade has expanded through distinct cycles. After reaching US\$651 billion in 2008, exports fell by 14.2% during the Global Financial Crisis before rebounding by 15.3% in 2010 and 17.5% in 2011. Growth then slowed considerably, averaging only about 1% annually between 2011 and 2019.

A second major cycle followed the pandemic. Exports fell to US\$784 billion in 2020, surged to US\$907 billion in 2021, and reached a record US\$954 billion in 2022. The subsequent correction reduced exports by 7.7% in 2023,

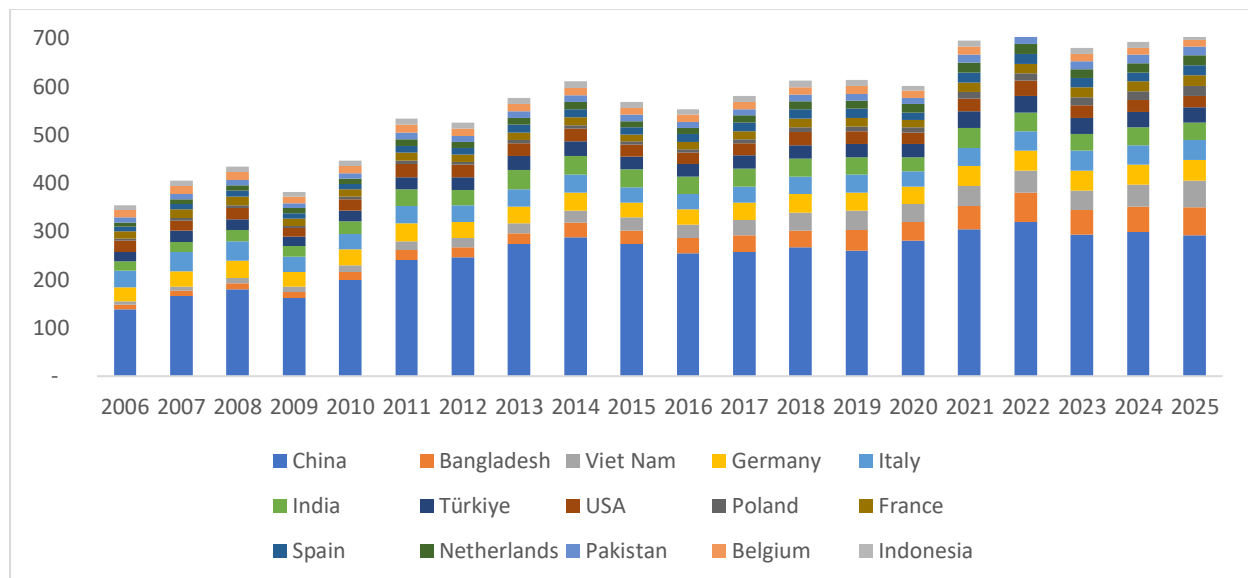
followed by two years of recovery to US\$914 billion in 2025. Despite this recovery, global textile exports remained 4.2% below their 2022 peak, highlighting a market that is much larger than two decades ago but has recently entered a more subdued phase of growth.

The Changing Geography of World Textile Exports

The expansion of world textile trade has been accompanied by a major shift in where exports originate. Since 2006, some countries have grown several times faster than the global market, climbed sharply in the rankings, and gained market share, while others have increased exports in value terms but still lost relative position.

China remains the dominant exporter, while Bangladesh and Viet Nam have emerged as major global suppliers. At the same time, several long-established exporters have lost ground, illustrating that growth in export value does not necessarily translate into greater competitiveness.

Table 2: Leading Textile Exporters (US\$ billion)



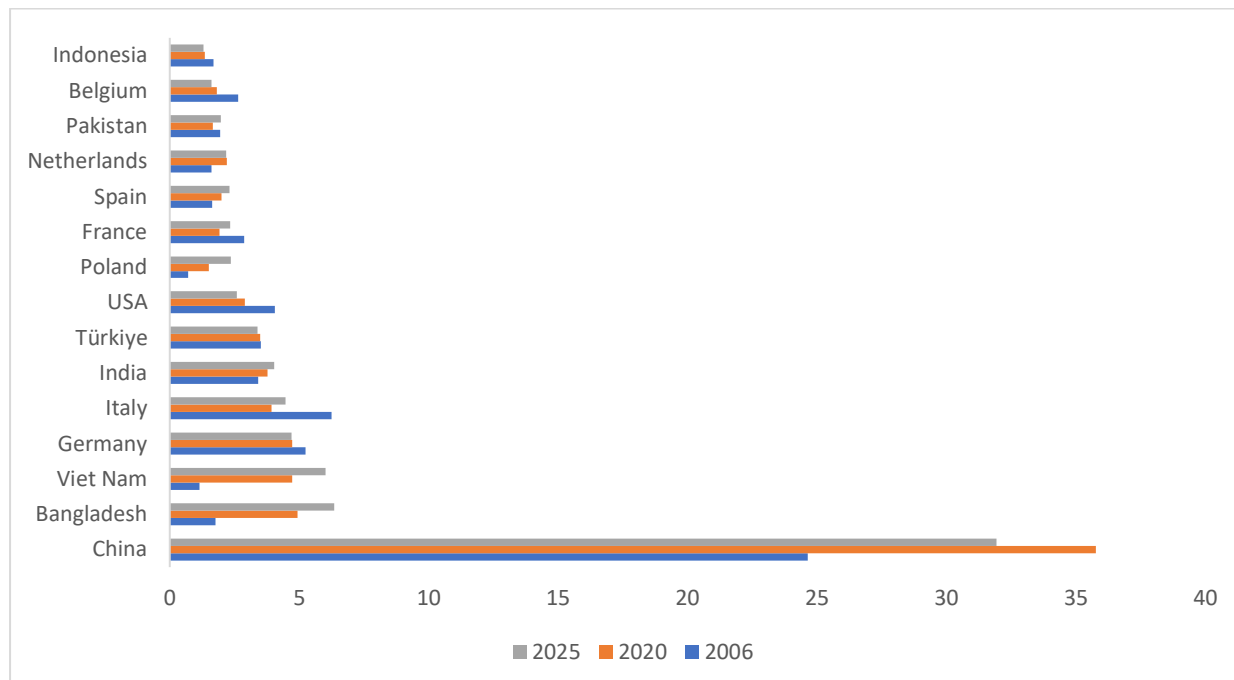
China remains in a category of its own. Its textile exports more than doubled from US\$138.1 billion in 2006 to US\$292.0 billion in 2025, growing faster than world textile trade and generating about 43.5% of the entire net increase in global exports. In 2025, China exported roughly five times as much as the second-largest exporter.

The most striking change occurred immediately below China. Bangladesh rose from 14th position to second, with exports increasing from US\$9.9 billion to US\$58.0 billion, while Viet Nam climbed from 21st to third as exports surged from US\$6.5 billion to US\$55.0 billion. Together with China, their share of world textile exports increased from 27.6% to 44.3%, and the three economies accounted for about 71% of global export growth between 2006 and 2025.

Elsewhere, Poland recorded one of the fastest increases in reported exports, rising from US\$3.9 billion to US\$21.4 billion and from 27th to ninth position, reflecting its growing importance in European textile trade and

distribution. India also strengthened its position, while Spain and the Netherlands more than doubled their exports. Pakistan increased exports from about US\$10.9 billion to US\$18.0 billion.

Table 2-1: Changing Shares of Leading Textile Exporters



Market share provides a more demanding measure of competitive performance than export value alone. China recorded the largest long-term gain, with its share of world textile exports rising from 24.6% in 2006 to 32.0% in 2025. Viet Nam gained about 4.9 percentage points and Bangladesh 4.6 percentage points, confirming how rapidly both countries moved into the top tier of global textile exporters. Poland also increased its share by about 1.7 percentage points, while India, Spain, and the Netherlands ended the period with larger shares than they held in 2006.

The opposite pattern is equally important. Several established exporters increased their exports in absolute terms but still lost global market share because they grew more slowly than the world market. Italy's exports increased over the period, yet its share declined from 6.26% to 4.48%. Germany followed a similar path, with its share falling from 5.24% to 4.70% despite higher export value. The USA presents an even sharper contrast: exports remained broadly unchanged at around US\$23–24 billion, but its share fell from 4.05% to 2.59%, while its ranking declined from fifth to eighth. Belgium experienced a similar erosion, with almost unchanged export value but a decline in share from 2.65% to 1.61%.

This distinction is central to understanding competitive change. Export value shows whether a country is selling more; market share shows whether it is growing fast enough to keep pace with the global market. A country can therefore expand its exports substantially while simultaneously becoming less important in world trade.

A Changing Core of Global Textile Exporters

The composition of global textile export leadership has changed substantially. The fifteen countries that ranked as the largest exporters in 2025 collectively accounted for 63.1% of world textile exports in 2006. Their combined share increased to 76.8% in 2020 and 77.6% in 2025. These figures trace the historical footprint of today's leading exporters rather than concentration among the fifteen largest exporters in each individual year. They show how strongly the countries that now dominate textile trade have expanded their collective position over the past two decades.

Much of this shift reflects the emergence of new centers of export growth rather than continuity among traditional leaders. Bangladesh and Viet Nam moved rapidly into the top tier, while Poland rose from far outside the leading group to become an important European textile trade and distribution center. Spain and the Netherlands also strengthened their positions, while several long-established exporters lost share or rank.

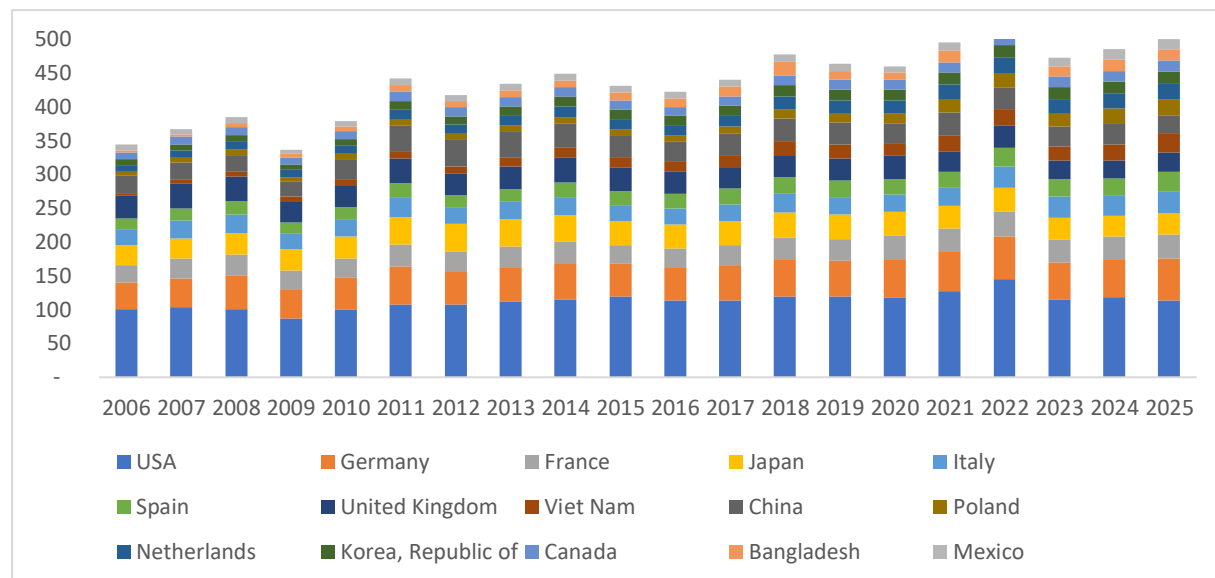
Hong Kong, China provides one of the most dramatic examples of this turnover. It was the world's second-largest textile exporter in 2006, with exports of US\$40.8 billion and a global share of 7.28%. By 2025, exports had fallen to US\$7.9 billion, its share dropped below 1%, and its ranking slipped to 19th. The Republic of Korea also declined from 10th to 17th place. In the opposite direction, Cambodia advanced from 37th to 16th position, while Myanmar rose from around 75th to 24th. Textile export leadership is therefore far from fixed: countries can enter the global supply structure rapidly, while positions built over decades can also be lost.

The Broadening Geography of World Textile Imports

The geography of textile imports has changed in a markedly different way from exports. While export activity has become concentrated among a relatively small group of major suppliers, imports are increasingly distributed across a broader range of economies. Traditional consumer markets remain important, but their collective dominance has weakened as manufacturing, trading, and consumption centers have expanded elsewhere.

The USA remains the world's largest textile importer, although its share has declined substantially. Germany has retained a comparatively stable position, while Viet Nam, Poland, and Bangladesh have risen sharply in the rankings and Spain has strengthened among established markets. The result is an import landscape that is less dependent on a handful of traditional destinations and increasingly shaped by a more diverse group of economies.

Table 3: Leading Textile Importers (US\$ billion)



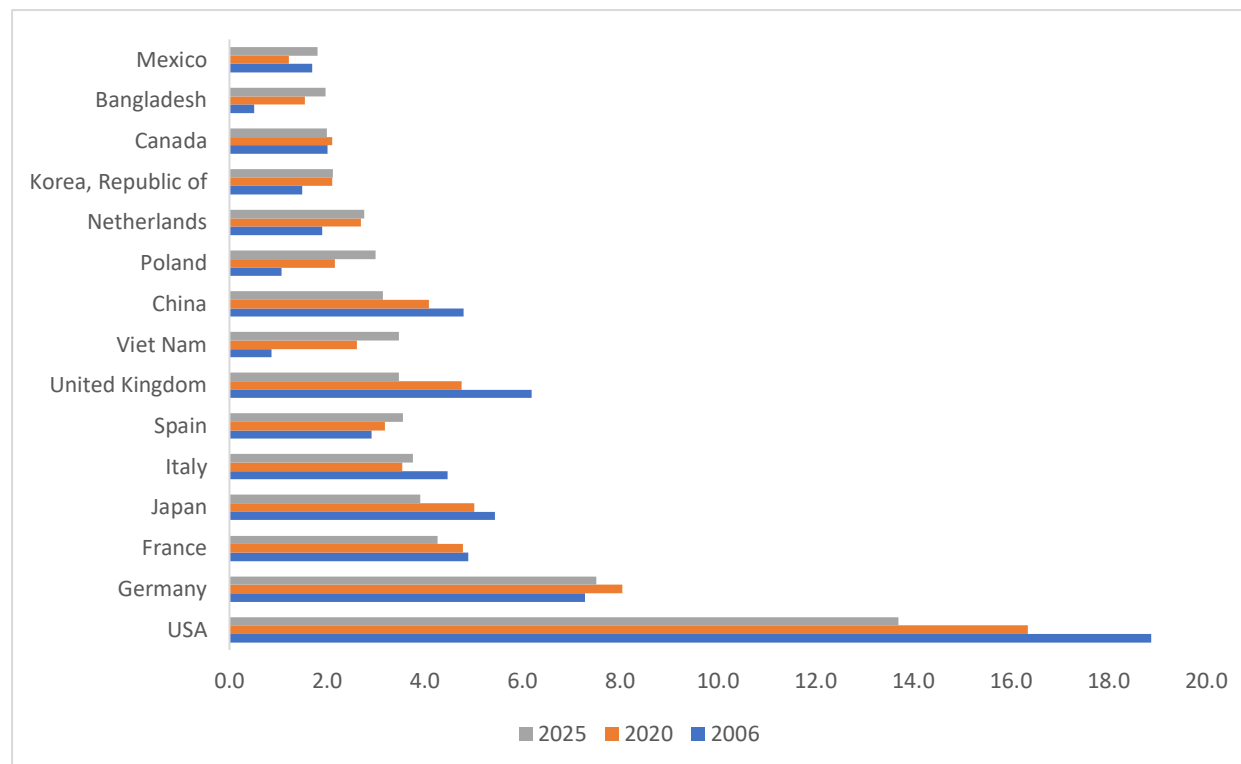
The USA remains the world's largest textile importer, with imports of US\$113.4 billion in 2025, but its dominance has weakened considerably. Its share of world textile imports fell from 18.88% in 2006 to 13.70% in 2025, a decline of more than five percentage points. Germany, by contrast, remained comparatively stable as the second-largest importer, with its share edging up from 7.29% to 7.51%; its imports also increased by 12.5% between 2023 and 2025.

Among other traditional markets, the picture is more mixed. Japan's share declined from 5.44% to 3.91%, while the United Kingdom fell from third position in 2006 to seventh in 2025, with its share dropping from 6.19% to 3.47%. France moved higher in the rankings despite losing some global share, showing that rank can improve even when relative market position weakens if other countries decline more sharply.

The strongest structural changes came from emerging manufacturing and trading economies. Viet Nam rose from 22nd position in 2006 to eighth in 2025, while its share increased from 0.86% to 3.47%; its imports grew a further 38.8% between 2023 and 2025. Poland advanced from 19th to tenth position, raising its share from 1.07% to 2.99%, while Bangladesh moved from 33rd to 14th and increased its share from 0.50% to 1.97%. Spain also stands out among established European markets, rising from ninth to sixth position and increasing its share from 2.91% to 3.55%.

These shifts require care in interpreting import data. Rapid import growth does not necessarily represent consumer demand alone. In economies such as Viet Nam and Bangladesh, imports of yarns, fabrics, and other textile inputs support downstream manufacturing and subsequent exports. In Poland and other major trading hubs, import growth may also reflect distribution and re-export activity. Import expansion can therefore signal consumption, manufacturing, trade, and distribution, or a combination of these functions.

Table 3-1: Changing Shares of Leading Textile Importers



The market-share picture makes the redistribution of global textile imports particularly clear. The USA remains the largest individual destination, but its share declined substantially from 18.88% in 2006 to 13.70% in 2025. Japan also lost ground, with its share falling from 5.44% to 3.91%, while the United Kingdom declined from 6.19% to 3.47%. China similarly became less important as an importer even while consolidating its dominant position on the export side. These shifts show that several of the markets that shaped global textile demand two decades ago now account for a smaller proportion of international trade.

The strongest gains came from economies playing increasingly important roles within textile manufacturing, trade, and distribution networks. Viet Nam's share rose from just 0.86% in 2006 to 3.47% in 2025, while Bangladesh increased from 0.50% to 1.97%. Spain, the Netherlands, and the Republic of Korea also strengthened their positions. Poland's rise, already evident in the ranking data, further reflects the growing importance of European trade and distribution networks.

The changing shares therefore reveal more than a redistribution of final consumer demand. Textile imports are increasingly flowing toward economies that combine consumption with manufacturing, processing, logistics, and trade. As the relative weight of several traditional markets declines and new centers gain importance, the geography of textile imports is becoming broader and more closely connected to the structure of global value chains.

Demand Is Dispersing While Supply Concentrates

The contrast between the export and import sides of world textile trade is increasingly pronounced. The three largest textile importers accounted for about 32.4% of global imports in 2006, but their share fell to 25.5% by 2025, indicating a clear reduction in the dominance of the largest destination markets.

The fifteen economies that ranked as the largest importers in 2025 collectively accounted for about 71.6% of global imports in 2006, compared with 60.4% in 2025. This is not a concentration measure for the fifteen largest importers in each year; rather, it shows that a growing share of global textile imports has shifted outside the group of economies that lead the market today.

The broader pattern nevertheless remains clear. Export supply is concentrated among a comparatively small group of major suppliers, while import demand is distributed across a wider range of consumer, manufacturing, and trading markets. The global textile system is therefore characterized by a relatively concentrated supply base alongside an increasingly multi-destination demand structure.

The distinction between an exporting economy and an importing economy has also become less clear. Viet Nam and Bangladesh, for example, have advanced strongly on both sides of textile trade because substantial imports of fibers, yarns, fabrics, and other inputs support their downstream export industries. Poland has likewise expanded rapidly as both an importer and exporter, reflecting its role in European textile trade and distribution. Modern textile value chains increasingly involve materials and finished products crossing borders at several stages before reaching the final consumer.

Recent Market Momentum: 2023–2025

Recent performance shows where textile import activity is continuing to strengthen after the post-pandemic adjustment. Viet Nam recorded the fastest growth among the leading importers, with imports rising by 38.8% between 2023 and 2025, followed by Poland at 28.9%. Spain increased by 15.2%, Mexico by 12.6%, Germany by 12.5%, and Bangladesh by 11.2%. In contrast, China's imports declined by 12.8%, the USA contracted modestly, while Japan and Italy were broadly unchanged.

Momentum is also visible beyond the leading group. India's textile imports increased by about 21.7% between 2023 and 2025, while Cambodia recorded growth of around 31%. These movements reinforce the broader shift toward a more diverse import geography, with additional textile flows increasingly absorbed by emerging manufacturing and trading economies rather than only by traditional consumer markets.

The composition of this growth is important. Rising imports can reflect expanding consumer demand, but in several fast-growing markets they also signal stronger manufacturing, processing, and trade networks. Recent momentum therefore reinforces the longer-term structural shift: textile demand and trade are becoming more geographically distributed even as export supply remains comparatively concentrated.

These shifts provide the context for the garment analysis that follows. The report now turns to knitted apparel, examining how changes in trade, market structure, competitiveness, product composition, and fiber use have reshaped this major segment of the global garment economy.

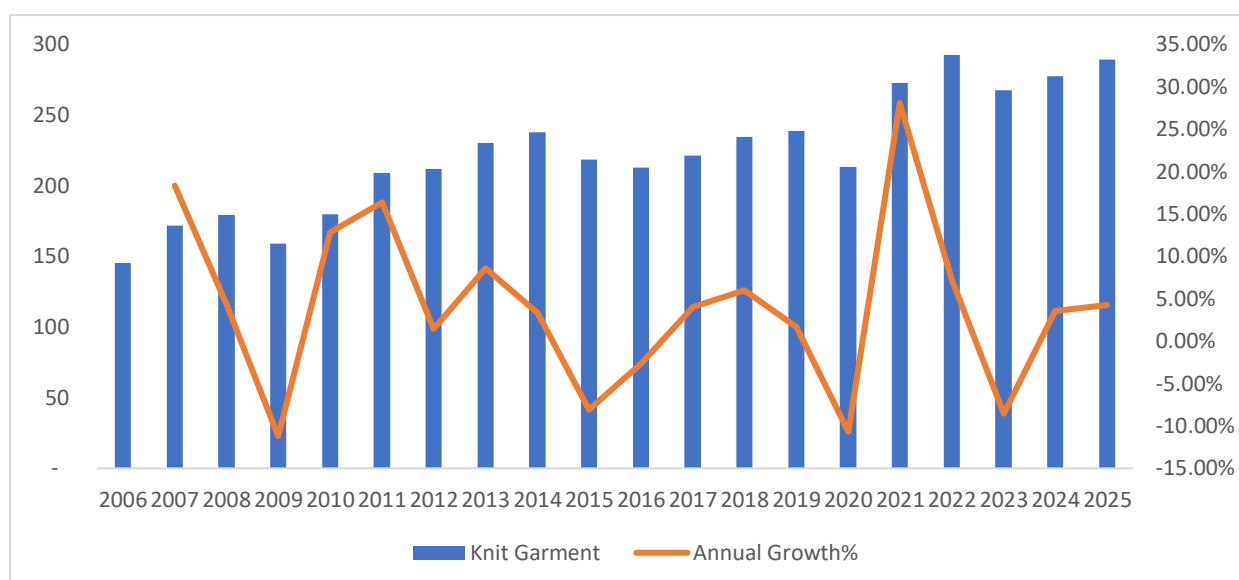
Knit Garments

Knit Garments Gain Ground in World Textile Trade

Knit garments have become one of the most dynamic components of world textile trade. Global exports increased from US\$145.2 billion in 2006 to US\$289.1 billion in 2025, almost doubling over nineteen years and recording a CAGR of 3.69%, substantially above the 2.61% growth of world textile exports.

The significance of this expansion extends beyond its absolute size. Knit garments accounted for 25.92% of world textile exports in 2006; by 2025, their share had risen to a record 31.63%. In other words, what represented roughly one-quarter of textile exports two decades ago now accounts for almost one-third. Knit garments also generated approximately 41% of the entire net increase in world textile exports between 2006 and 2025, making this segment a major driver of the industry's long-term expansion.

Table 4: World Exports of Knit Garments (US\$ billion)



The long-term rise in knit garment trade was far from continuous. Exports increased from US\$145.2 billion in 2006 to US\$237.8 billion in 2014, equivalent to a CAGR of 6.36%. The Global Financial Crisis interrupted this expansion, with exports falling by 11.2% in 2009, but growth rebounded strongly in 2010 and 2011 and continued through 2014.

Momentum weakened thereafter. Between 2014 and 2020, knit garment exports declined overall despite reaching a temporary high in 2019. The pandemic disruption then pushed exports down by 10.7% in 2020 to US\$213.1 billion, leaving the market below its 2014 level.

What followed was the strongest rebound in the entire period. Exports surged by 28.1% in 2021 and a further 7.3% in 2022, reaching a record US\$292.7 billion. Between 2020 and 2022 alone, global knit garment exports expanded by approximately 37%.

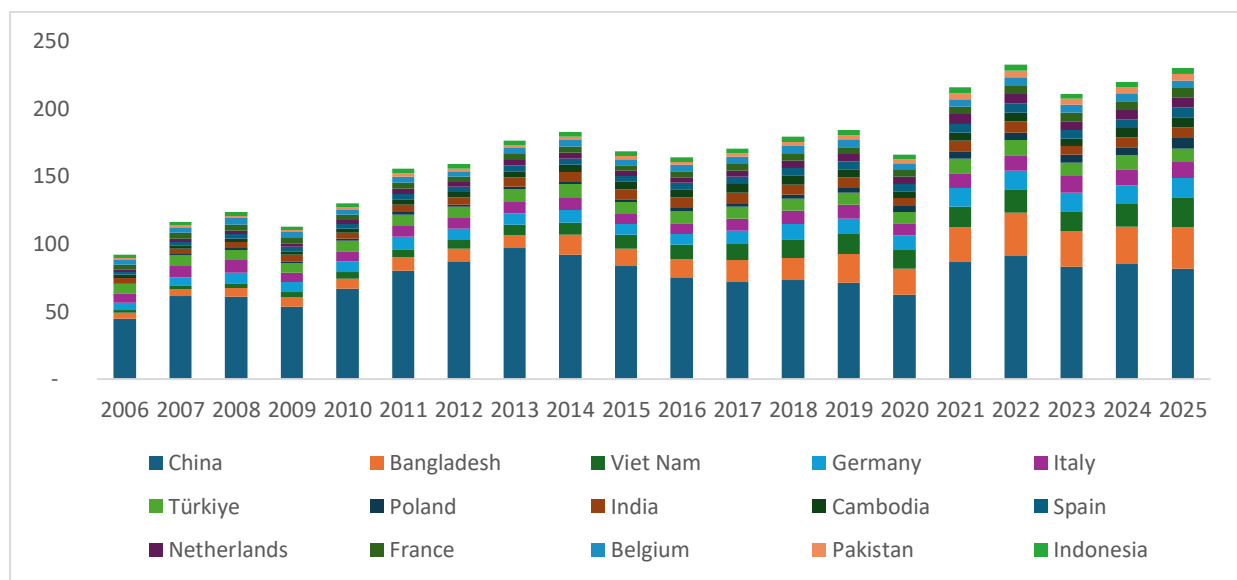
The 2022 peak was followed by an 8.5% correction in 2023, but recovery was comparatively strong. Exports grew by 3.6% in 2024 and 4.3% in 2025, reaching US\$289.1 billion—only 1.25% below the record peak. Knit garments also continued to outperform textile trade as a whole in both recovery years, reinforcing their growing importance within the global textile market.

The Competitive Geography of Knit Garment Exports

The expansion of knit garment trade has been accompanied by a profound reshaping of export leadership. China remains the dominant supplier, but Bangladesh and Viet Nam have emerged as major global exporters, while Poland has risen sharply as a European trade and distribution center. Several other economies have also strengthened their positions, while some countries that were central to the industry two decades ago have steadily lost ground.

The transformation is particularly striking at the top. In 2006, the three largest exporters were China, Hong Kong, China, and Italy, together accounting for approximately 45.4% of world knit garment exports. By 2025, the leading three were China, Bangladesh, and Viet Nam, with a remarkably similar combined share of 46.5%. Concentration among the three largest exporters has therefore changed surprisingly little; what has changed dramatically is the identity of the countries occupying those positions.

Table 5: Leading Exporters of Knit Garments

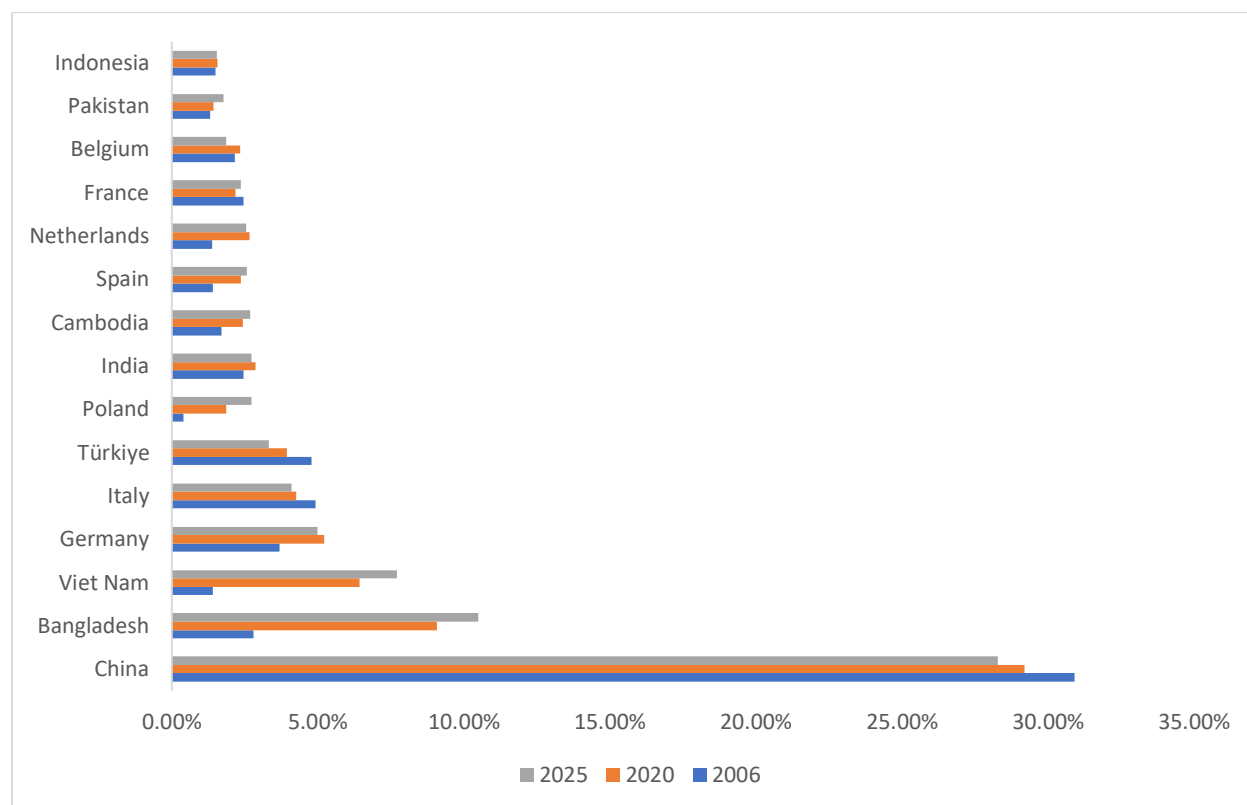


China remains the dominant exporter of knit garments. Its exports increased from US\$44.9 billion in 2006 to US\$81.7 billion in 2025, although its CAGR of 3.20% was slightly below the 3.69% growth of the global market. As a result, China's share declined moderately from 30.92% to 28.27%. The largest structural gains came from Bangladesh and Viet Nam. Bangladesh increased exports from US\$4.1 billion to US\$30.3 billion, moving from sixth to second position and raising its world share from 2.80% to 10.49%. Viet Nam advanced from 18th to third position as exports rose from about US\$2.0 billion to US\$22.3 billion and its share increased from 1.40% to 7.71%.

Together, China, Bangladesh, and Viet Nam increased their share of world knit garment exports from 35.1% in 2006 to 46.5% in 2025 and generated almost 58% of the entire net increase in global exports over the period. Beyond the leading three, Poland recorded one of the most striking changes, rising from 39th position in 2006

to seventh in 2025 as reported exports increased from about US\$0.6 billion to US\$7.9 billion. Cambodia increased its world share from 1.71% to 2.69%, Spain rose from 17th to tenth position, and Pakistan increased exports from approximately US\$1.9 billion to US\$5.1 billion, raising its share from 1.31% to 1.77%.

Table 5-1: Changing Shares of Knit Garment Exporters



Market-share changes reveal a substantial redistribution of competitive strength. Bangladesh recorded the largest long-term gain among the major exporters, increasing its share from 2.80% in 2006 to 10.49% in 2025. Viet Nam rose from 1.40% to 7.71%, while Poland increased from only 0.40% to 2.73%. Cambodia, Spain, and Pakistan also ended the period with stronger positions than they held in 2006.

Several established exporters moved in the opposite direction. China's share declined moderately from 30.92% to 28.27%, Italy fell from 4.93% to 4.10%, Türkiye from 4.78% to 3.33%, and Belgium from 2.17% to 1.86%. The most dramatic retreat occurred in Hong Kong, China, which fell from second position and a 9.51% share in 2006 to twentieth position and only 0.93% in 2025.

The fifteen countries that ranked as the largest knit garment exporters in 2025 collectively accounted for approximately 73.4% of world exports in 2006 and 79.7% in 2025. This reflects the expanding historical footprint of today's leading suppliers rather than a direct measure of concentration in each year. Growth itself was highly concentrated: China, Bangladesh, and Viet Nam generated almost 58% of the entire net increase in world knit garment exports, rising to approximately 69% when Germany and Poland are included. The fifteen leading exporters in 2025 collectively generated approximately 96% of net world export growth over the period.

Recent performance indicates that the competitive redistribution is continuing. Between 2023 and 2025, Viet Nam's knit garment exports increased by 50.9%, Poland's by 42.9%, and Cambodia's by 41.8%. Pakistan also recorded growth of 21.3%, followed by the Netherlands at 19.1%, India at 18.5%, and Spain at 18.0%. In contrast, China's exports declined slightly, Italy remained broadly unchanged, while Türkiye and Belgium contracted.

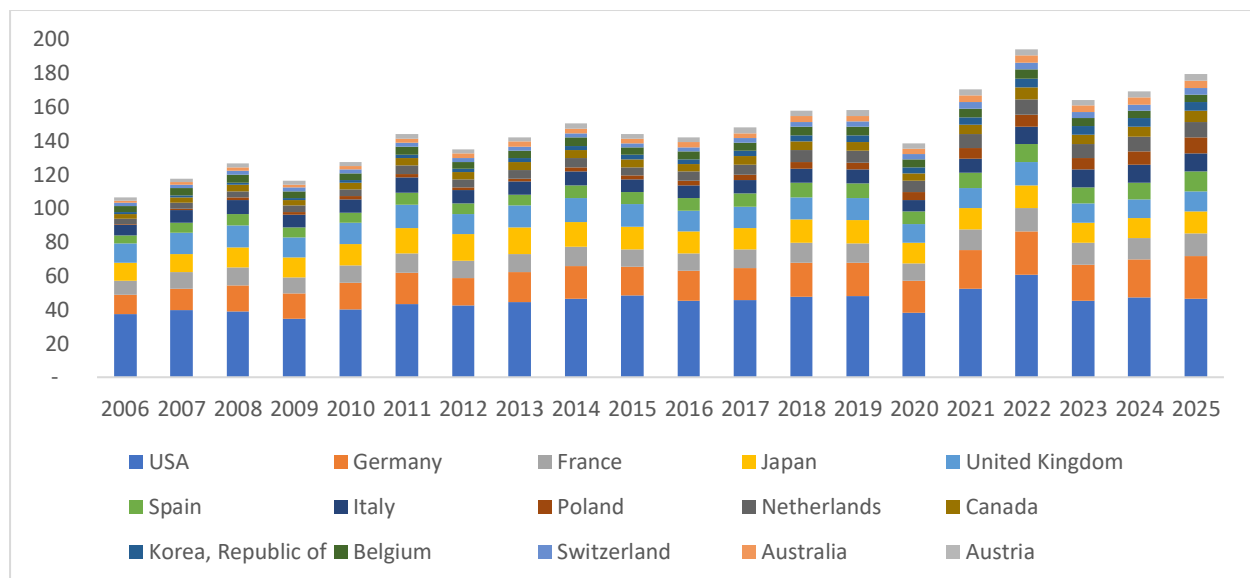
Important movements are also visible beyond the fifteen leading exporters. Denmark ranked 16th in 2025, with exports increasing from approximately US\$1.4 billion in 2006 to US\$3.1 billion and growing by almost 20% after 2023. The USA moved in the opposite direction, falling from tenth to 17th position as its global share declined from 1.73% to 1.04%. Hong Kong, China experienced the most dramatic structural decline, while Myanmar advanced from approximately 72nd to 23rd position and the Czech Republic from 51st to 25th.

The central feature of the knit garment export market is therefore not simply greater or lower concentration, but a major redistribution of manufacturing and export capability. China remains dominant, while Bangladesh and Viet Nam have become major global suppliers and a wider group of competitive exporters has strengthened. The industry has expanded substantially without a corresponding fragmentation of global supply.

The Broadening Geography of Knit Garment Markets

The geography of knit garment imports has evolved very differently from the geography of manufacturing and export supply. While exports are concentrated among a relatively small group of suppliers, import activity has spread across a broader range of economies. The USA remains the largest market by a considerable margin, but its dominance has weakened, while Germany, Spain, Poland, and several other markets have gained importance. The three largest knit garment importers accounted for 43.4% of the market in 2006, compared with only 33.6% in 2025, indicating a substantial broadening of destination demand.

Table 6: Leading Importers of Knit Garments (US\$ billion)



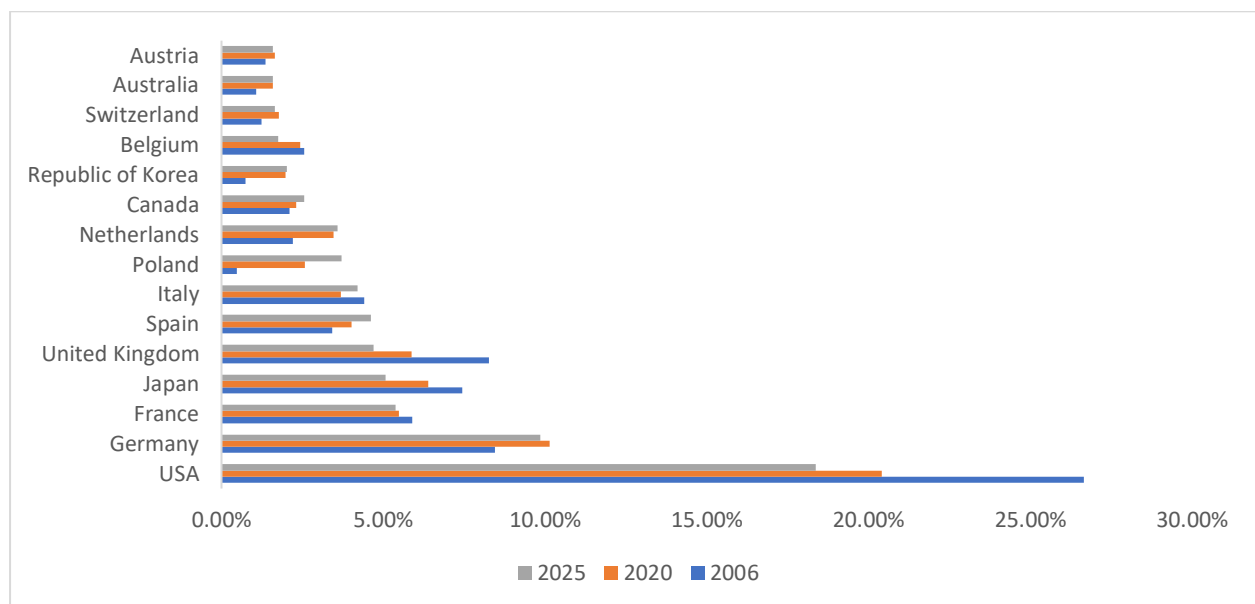
The USA remains the industry's largest individual import market, with imports reaching approximately US\$46.6 billion in 2025. Its relative importance, however, has declined substantially: the USA accounted for 26.66% of world knit garment imports in 2006 but only 18.36% in 2025. Germany followed a different trajectory, retaining

second position while increasing its share from 8.46% to 9.85%. Its imports also increased by 16.6% between 2023 and 2025.

Among the other major traditional markets, France moved from sixth to third position despite a modest decline in market share, while Japan's share fell from 7.44% to 5.07% and the United Kingdom declined from third to fifth position, with its share falling from 8.28% to 4.71%. Spain stands out among established European markets, rising from eighth to sixth position and increasing its share from 3.43% to 4.63%. Its imports also grew by 20.7% between 2023 and 2025.

Poland recorded the most dramatic long-term rise among the leading importers, moving from 26th position and a share of just 0.47% in 2006 to eighth position and 3.71% in 2025. This rise should be interpreted partly in the context of its expanding role in European garment trade and distribution rather than as domestic demand alone. The Netherlands, Canada, and the Republic of Korea also strengthened their positions. Overall, the market remains anchored by the USA, but import activity is increasingly distributed across a broader group of European and Asian economies.

Table 6-1: Changing Shares of Leading Knit Garment Importers



The market-share comparison confirms a substantial redistribution of knit garment demand. The most significant long-term change is the declining dominance of the USA, whose share fell from 26.66% in 2006 to 18.36% in 2025. The United Kingdom and Japan also lost considerable relative weight. In contrast, Germany increased its share, Spain strengthened markedly, and several medium-sized markets gained importance.

The three largest import markets accounted for 43.40% of global knit garment imports in 2006, 36.95% in 2020, and only 33.58% in 2025. The fifteen countries that ranked as the largest importers in 2025 collectively accounted for 83.09% of world imports in 2006 and 70.65% in 2025, showing that a larger share of trade is now occurring outside the group of markets that lead today. This contrasts with the export side, where manufacturing and export supply remain concentrated among a comparatively small group of suppliers.

Recent performance reinforces the shift. Between 2023 and 2025, Poland's imports increased by 37.6%, Austria's by 23.9%, Spain's by 20.7%, Germany's by 16.6%, the Netherlands' by 13.8%, and Canada's by 11.9%. Outside the fifteen leading markets, Türkiye recorded growth of 51.4% and Malaysia almost 49%, albeit from smaller bases. The central change is therefore not the disappearance of traditional markets, but their declining dominance within an increasingly multi-destination global market.

This divergence between concentrated export supply and increasingly dispersed import markets provides the basis for the next stage of the analysis: identifying which products within HS 61 are driving knit garment trade and how the competitive structure changes at the product level.

The Changing Product Structure of Knit Garment Trade

The expansion of knit garment trade has not fundamentally changed the degree of product concentration within HS 61. The 17 four-digit product categories covered in the analysis increased from approximately US\$145 billion in 2006 to US\$288 billion in 2025, almost doubling over the period. Yet concentration remained remarkably stable: the three largest categories represented 58.2% of exports in 2006 and 59.8% in 2025, while the five largest accounted for 70.3% and 71.2%, respectively. The main transformation has therefore occurred within the product hierarchy rather than through a broadening of the product base.

Table 7: Major Export Products in Knit Garments (US\$ billion)

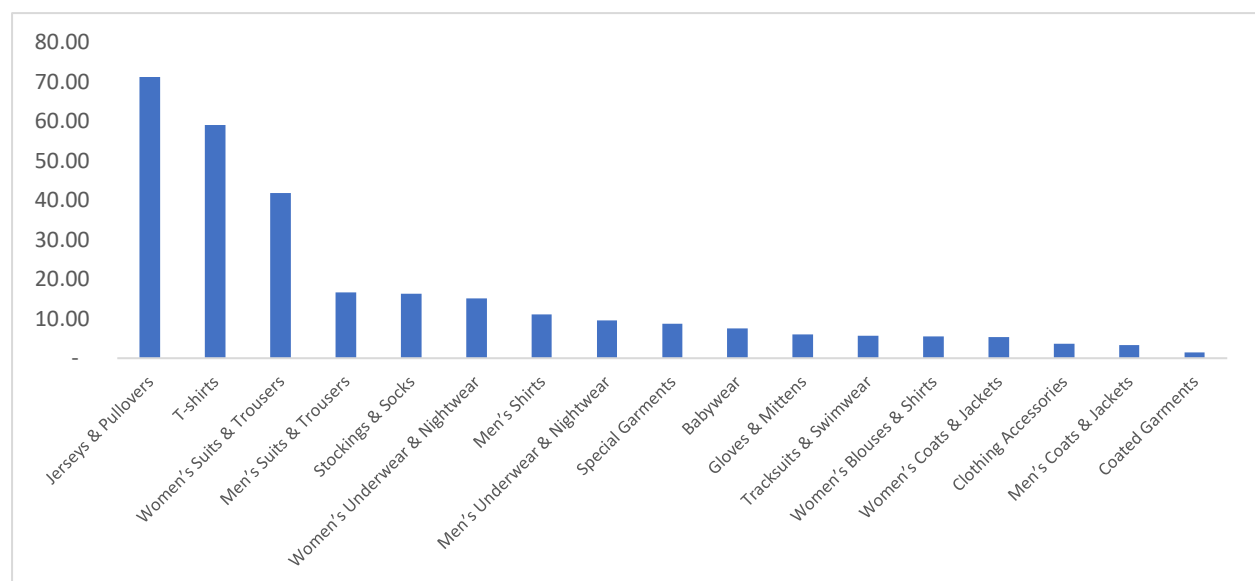
Products	0 6	0 7	0 8	0 9	1 0	1 1	1 2	1 3	1 4	1 5	1 6	1 7	1 8	1 9	2 0	2 1	2 2	2 3	2 4	2 5
Jerseys & Pullovers	3 9	4 4	4 6	4 1	4 3	5 0	4 7	5 0	4 8	4 8	4 7	4 9	5 4	5 7	5 1	6 4	7 0	6 3	6 5	7 1
T-shirts	3 1	3 5	3 6	3 1	3 5	4 0	4 0	4 2	4 6	4 4	4 4	4 5	4 7	4 7	4 1	5 0	5 6	5 3	5 6	5 9
Women's Suits & Trousers	1 4	2 1	2 0	2 1	2 7	3 3	4 0	4 5	4 2	3 7	3 5	3 5	3 6	3 6	3 3	4 5	4 5	4 0	4 0	4 2
Men's Suits & Trousers	7 7	1 1	1 0	9 9	1 0	1 3	1 5	1 7	1 5	1 4	1 3	1 4	1 4	1 3	1 2	1 7	1 8	1 6	1 6	1 7
Stockings & Socks	8 8	9 9	1 1	1 0	1 2	1 3	1 3	1 4	1 4	1 3	1 2	1 3	1 4	1 4	1 2	1 5	1 6	1 6	1 6	1 6
Women's Underwear & Nightwear	9 9	1 1	1 1	9 9	1 0	1 1	1 1	1 2	1 3	1 2	1 2	1 2	1 3	1 3	1 2	1 7	1 6	1 5	1 5	1 5
Men's Shirts	6 6	7 7	8 8	7 7	8 8	9 9	9 9	9 9	9 8	8 8	8 8	8 8	9 8	9 7	7 8	1 0	1 0	1 0	1 0	1 1
Men's Underwear & Nightwear	4 4	4 4	5 5	4 4	5 5	6 6	5 5	6 6	7 7	6 6	7 7	7 7	7 7	7 7	7 7	9 9	1 0	8 8	9 9	1 0
Special Garments	3 3	4 4	4 4	4 4	4 4	5 5	5 5	6 6	7 7	7 7	7 7	7 7	8 8	9 9	8 8	1 0	1 2	1 1	1 2	9 9
Babywear	5 5	5 5	5 5	5 5	5 5	6 6	6 6	6 6	7 7	6 6	7 7	7 7	7 7	7 7	7 7	9 9	9 9	8 8	8 8	8 8
Gloves & Mittens	2 2	2 2	3 3	2 2	3 3	4 4	4 4	4 4	4 4	4 4	4 4	5 5	5 5	5 5	5 5	6 6	6 6	6 6	6 6	6 6
Tracksuits & Swimwear	4 4	5 5	4 4	4 4	4 4	5 5	4 4	5 5	5 5	4 4	4 4	5 5	5 5	5 5	4 4	6 6	7 7	6 6	6 6	6 6
Women's Blouses & Shirts	7 7	9 9	8 8	6 6	6 6	6 6	6 6	6 6	6 6	5 5	5 5	5 5	5 5	4 4	4 4	4 4	4 4	4 4	5 5	5 5

Women's Coats & Jackets	1	2	2	2	2	3	2	2	3	3	3	3	3	3	3	4	4	4	4	5
Clothing Accessories	2	2	2	2	2	3	3	3	3	3	3	3	3	3	3	4	4	3	3	4
Men's Coats & Jackets	1	1	1	1	1	2	2	2	2	2	2	2	2	3	2	3	3	3	3	3
Coated Garments	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	2	2	1	1	1

Two categories continue to define the global knit garment business. Jerseys & Pullovers (HS 6110) remained the largest product throughout the period, with exports increasing from US\$38.9 billion in 2006 to a record US\$71.3 billion in 2025. T-shirts (HS 6109) retained second position, rising from US\$31.3 billion to a record US\$59.0 billion. Together they accounted for approximately 45% of world knit garment exports in 2025. Their relative dominance, however, weakened modestly: the share of Jerseys & Pullovers declined from 26.83% to 24.73%, while T-shirts fell from 21.60% to 20.48%.

The major structural gainer was Women's Suits & Trousers (HS 6104). Exports almost tripled from US\$14.1 billion in 2006 to US\$41.9 billion in 2025, while its share rose from 9.75% to 14.54%—the largest market-share gain among the major product groups. Jerseys & Pullovers generated approximately 22.6% of the net increase in knit garment exports, Women's Suits & Trousers 19.4%, and T-shirts 19.3%. Together, these three categories generated around 61% of all additional world knit garment exports between 2006 and 2025.

Table 7-1: Major Export Products in Knit Garments in 2025 (US\$ billion)



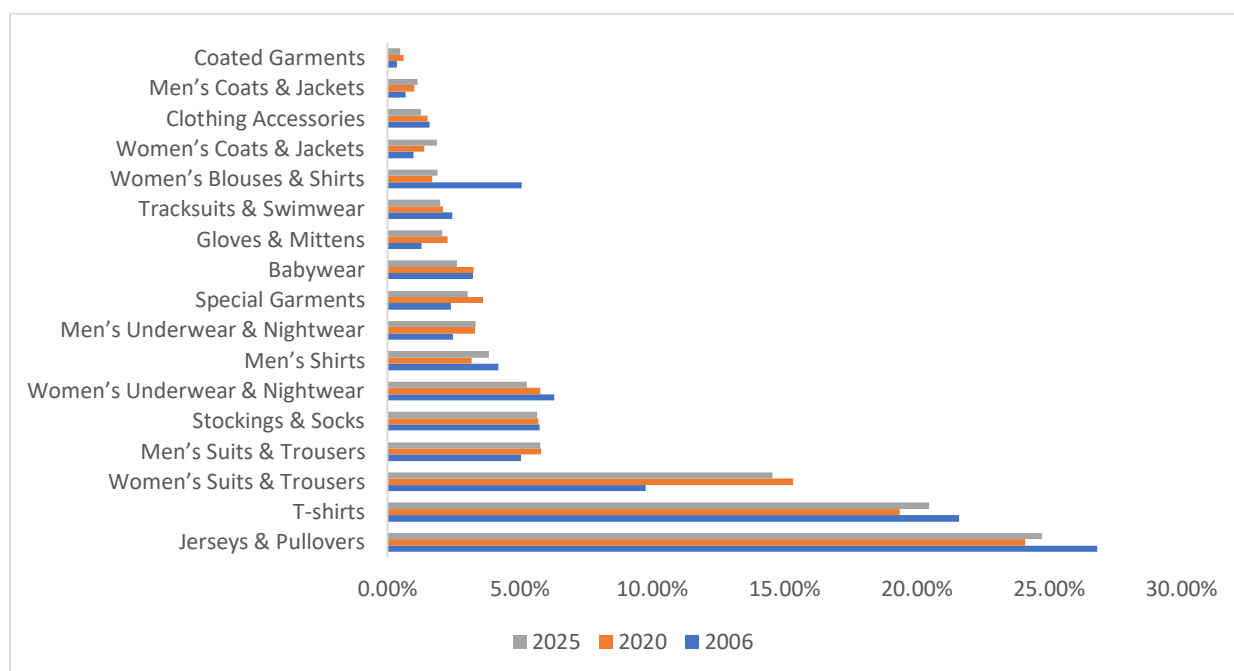
Below the leading three, the hierarchy has also shifted. Men's Suits & Trousers moved from seventh position in 2006 to fourth in 2025, with exports increasing from approximately US\$7.3 billion to US\$16.6 billion and market share rising from 5.04% to 5.77%. Stockings & Socks remained unusually stable, ranking fifth in both 2006 and 2025 with a share of around 5.7%.

Several smaller categories grew considerably faster than the overall market. Women’s Coats & Jackets recorded the fastest long-term CAGR among the 17 categories at 7.28%, rising from approximately US\$1.4 billion to US\$5.4 billion. Men’s Underwear & Nightwear increased its share from 2.48% to 3.34%, while Gloves & Mittens more than tripled in export value and raised its share from 1.29% to 2.08%.

The clearest structural decline occurred in Women’s Blouses & Shirts (HS 6106), the only category to record a negative long-term CAGR. Exports fell from approximately US\$7.3 billion in 2006 to US\$5.4 billion in 2025, its share declined from 5.06% to 1.89%, and its ranking dropped from sixth to thirteenth. Other categories—including Women’s Underwear & Nightwear, Babywear, Tracksuits & Swimwear, and Clothing Accessories—expanded in absolute value but lost relative weight because they grew more slowly than the wider knit garment market.

Recent performance adds another dimension. Between 2023 and 2025, Women’s Coats & Jackets grew by 27.8%, Men’s Shirts by 15.6%, Men’s Underwear & Nightwear by 14.6%, Jerseys & Pullovers by 12.3%, and T-shirts by 11.7%. Women’s Blouses & Shirts grew by 33.9%, but from a substantially reduced base and remained almost 38% below its historical peak. Conversely, Special Garments contracted by 23.6%, while Tracksuits & Swimwear and Coated Garments also weakened.

Table 7-2: Changing Product Mix of World Knit Garments



Viewed through market share, the structural change becomes particularly clear. Jerseys & Pullovers and T-shirts remain the two dominant pillars of HS 61, but their combined share has gradually declined. The principal beneficiary has been Women’s Suits & Trousers, whose share increased from less than 10% to more than 14%. Men’s Suits & Trousers, Men’s Underwear & Nightwear, Women’s Coats & Jackets, and Gloves & Mittens also strengthened their positions, while Women’s Blouses & Shirts experienced the sharpest structural decline.

The overall picture is therefore one of stability at the top but considerable movement beneath it. World knit garment trade remains dominated by a relatively small group of established product categories, yet growth

within that group has been redistributed significantly. Most strikingly, just three products—Jerseys & Pullovers, Women’s Suits & Trousers, and T-shirts—generated more than 60% of all additional knit garment exports since 2006, while several smaller categories have grown considerably faster than the overall market and gradually gained weight.

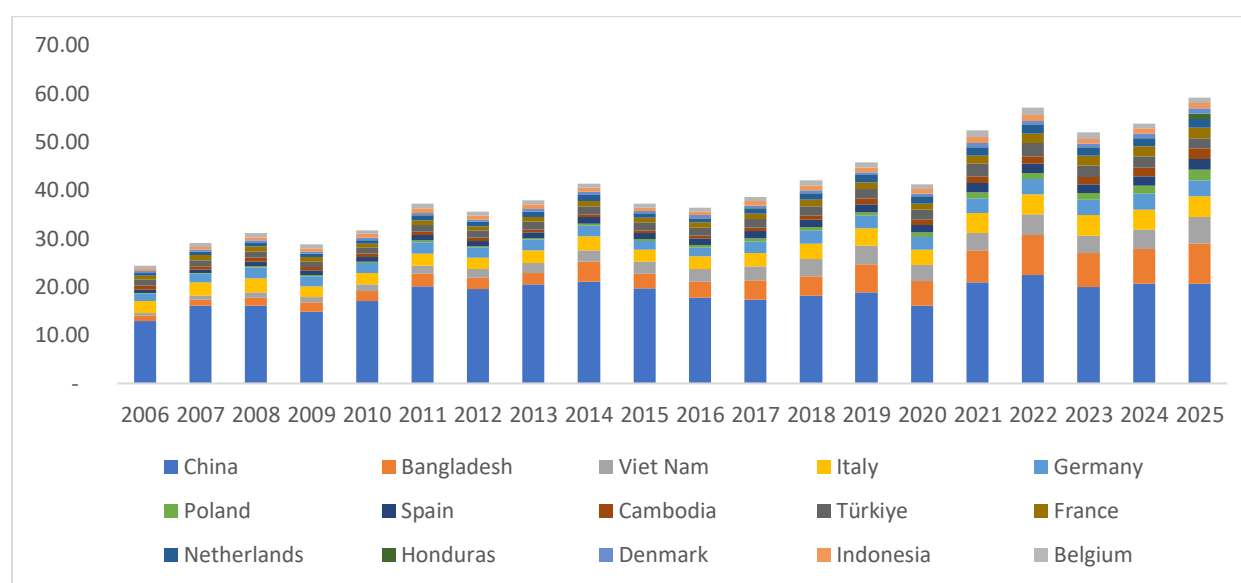
Leading Exporting and Importing Countries of Major Products in Knit Garments

The aggregate product analysis shows which categories are driving knit garment trade, but competitiveness ultimately plays out at the country and market level. The following section therefore examines the leading exporters and importers of the major HS 61 product groups, identifying where manufacturing and export supply are concentrating, where demand is shifting, and which countries are gaining or losing competitive position.

Jerseys & Pullovers: A Global Market Rebuilt Around New Suppliers

Jerseys & Pullovers (HS 6110) are the largest product category in world knit garment trade. Exports increased from approximately US\$38.9 billion in 2006 to a record US\$71.3 billion in 2025, an increase of more than 83% and a long-term CAGR of 3.24%. The competitive structure has changed substantially. The three largest exporters accounted for 56.2% of world exports in 2006 but 48.3% in 2025, indicating some broadening at the top even as export supply remains dominated by a relatively small group of major suppliers.

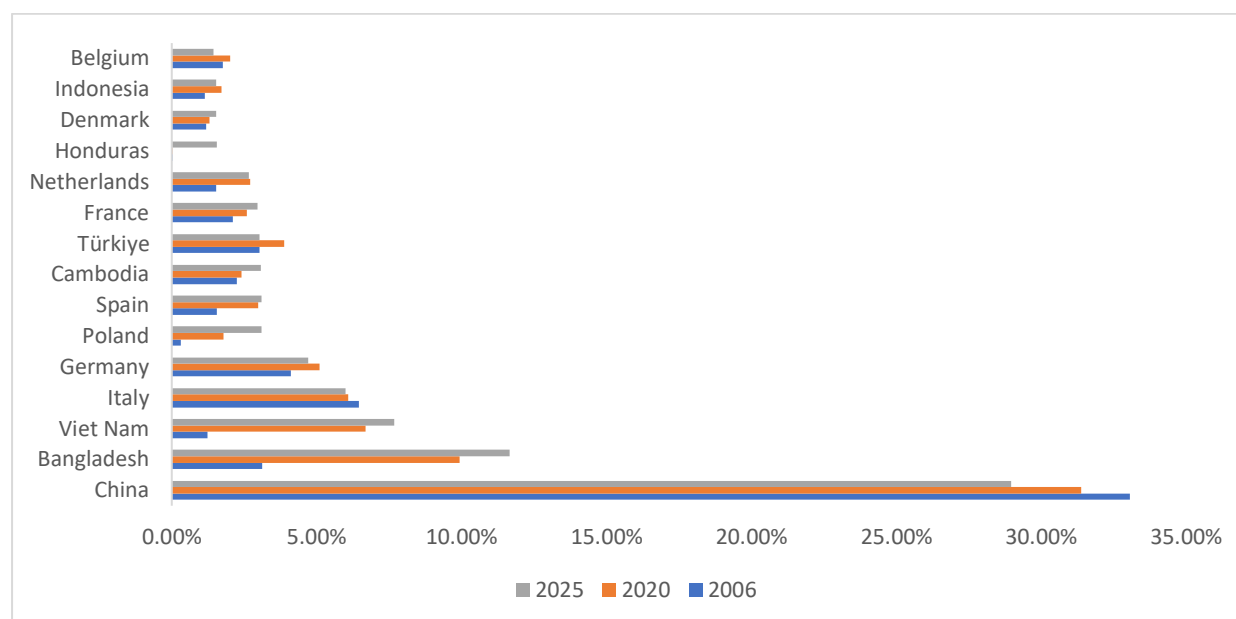
Table 8: Leading Exporters of Jerseys & Pullovers



China remains the largest exporter by a considerable margin. Exports increased from US\$12.9 billion in 2006 to US\$20.6 billion in 2025, but its share declined from 33.06% to 28.97% as competitors grew faster. Bangladesh recorded the largest structural advance among the leading suppliers, increasing exports from US\$1.2 billion to US\$8.3 billion, moving from fifth to second position and raising its share from 3.11% to 11.65%. Viet Nam rose from 14th to third position, with exports increasing from less than US\$0.5 billion to US\$5.5 billion and its share rising from 1.22% to 7.69%.

Together, China, Bangladesh, and Viet Nam increased their combined share from about 37.4% to 48.3% and generated approximately 61% of the entire net increase in world Jerseys & Pullovers exports. Beyond the leading three, Poland advanced from 41st position in 2006 to sixth in 2025, with reported exports increasing from around US\$0.1 billion to US\$2.2 billion. Spain also strengthened considerably, moving from 11th to seventh position and doubling its share from 1.55% to 3.10%. Cambodia, the Netherlands, Denmark, and Indonesia also gained ground, substantially reshaping the competitive tier beneath China.

Table 8-1: Changing Shares of Leading Jerseys & Pullovers Exporters



The market-share comparison makes the redistribution even clearer. Bangladesh and Viet Nam increased their combined share from only 4.3% in 2006 to more than 19% in 2025, while Poland, Spain, Cambodia, and the Netherlands also ended the period with materially stronger positions. The most dramatic retreat occurred in Hong Kong, China, which was the world's second-largest exporter in 2006 with a 16.71% share but had fallen to 16th position and only 1.23% by 2025. The United Kingdom and Belgium also lost substantial relative ground.

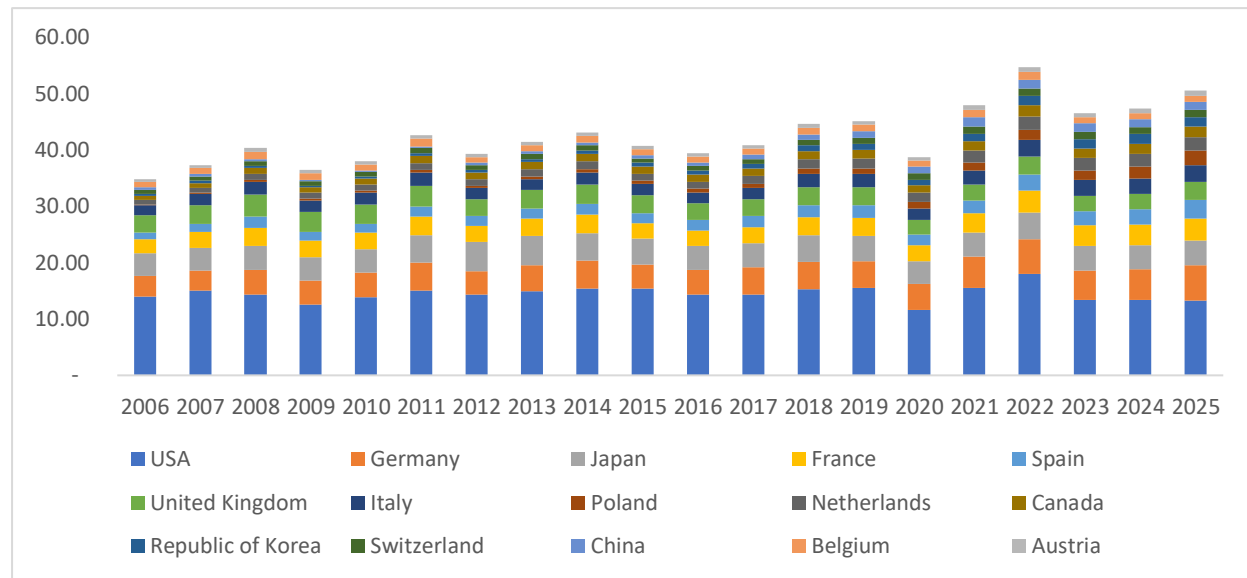
The fifteen countries that ranked as the largest exporters in 2025 collectively generated more than 100% of the net increase in HS 6110 exports between 2006 and 2025. This occurred because declines among former major suppliers—particularly Hong Kong, China—offset part of the gains made by today's leading exporters. The result reflects a substantial transfer of manufacturing and export market share between economies rather than simple market expansion.

Recent data show that this redistribution is continuing. Between 2023 and 2025, Poland's exports increased by 62.5%, Viet Nam's by 55.1%, and Cambodia's by 41.5%, followed by Spain at 24.7%, Bangladesh at 18.9%, and the Netherlands at 17.7%. China grew by only 3.1%, Italy and France were broadly unchanged, while Türkiye and Belgium contracted. Pakistan is also approaching the leading group: exports increased from about US\$64 million in 2006 to approximately US\$860 million in 2025, lifting it from 49th to 17th position, with a further 25.6% increase between 2023 and 2025. Overall, Jerseys & Pullovers remain anchored by China, but a much stronger competitive tier has emerged beneath it, led particularly by Bangladesh and Viet Nam.

Jerseys & Pullovers: Demand Broadens Beyond the Traditional Markets

The import side of Jerseys & Pullovers presents a markedly different structure from the export side. While manufacturing and export supply remain concentrated among a relatively small group of suppliers, import demand has become substantially more geographically dispersed. The three largest import markets accounted for 49.9% of world HS 6110 imports in 2006 but only 36.3% in 2025, while the share of the five largest fell from approximately 65.0% to 47.3%.

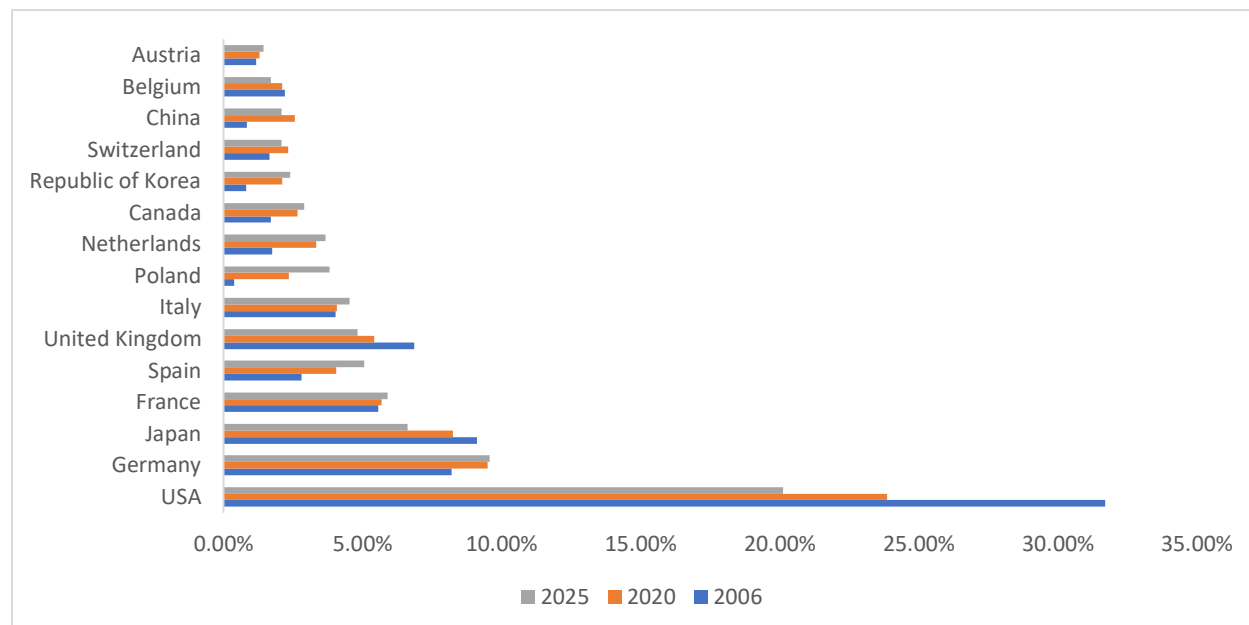
Table 9: Leading Importers of Jerseys & Pullovers



The USA remains the largest individual market, but its dominance has weakened dramatically. Its share fell from 31.72% in 2006 to 20.12% in 2025, while the value of imports was slightly lower in 2025 than nineteen years earlier. Germany moved in the opposite direction, rising from fourth to second position and increasing its share from 8.20% to 9.57%. Japan remained the third-largest market but saw its share decline from 9.12% to 6.61%, while France improved from sixth to fourth position with a broadly stable share. Spain stands out as a structural gainer, advancing from eighth to fifth position and increasing its share from 2.81% to 5.05%.

Poland recorded the most dramatic transformation, rising from 27th position and just 0.38% of world imports in 2006 to eighth position and 3.81% in 2025. The Netherlands, Canada, and the Republic of Korea also strengthened substantially: the Netherlands more than doubled its share from 1.75% to 3.67%, Canada increased from 1.70% to 2.91%, and the Republic of Korea advanced from 17th to 11th position while raising its share from 0.81% to 2.40%. The overall pattern is therefore one of declining dependence on a handful of traditional markets and rising importance across a broader group of destinations.

Table 9-1: Changing Shares of Leading Jerseys & Pullovers Importers



Market-share changes reinforce this redistribution. The USA alone lost more than eleven percentage points of global share, while Japan and the United Kingdom also became considerably less dominant. Hong Kong, China experienced an even more dramatic decline, falling from the world's third-largest import market in 2006 with a 9.08% share to 16th position and only 1.43% in 2025. Against these declines, Germany strengthened modestly, while Spain, Poland, the Netherlands, Canada, and the Republic of Korea recorded much larger gains.

The contrast with the export side is particularly revealing. In 2025, the three leading exporters of Jerseys & Pullovers accounted for 48.3% of world exports, compared with only 36.3% for the three largest import markets. The fifteen leading exporters represented about 83.0% of exports, compared with 76.7% for the fifteen leading importers. Growth has also been widely distributed across destination markets: Germany generated approximately 12.4% of the net increase in imports, Poland 10.8%, Spain 9.6%, the Netherlands 7.6%, and France 6.6%, while more than one-quarter of the total increase came from markets outside the fifteen leading importers in 2025.

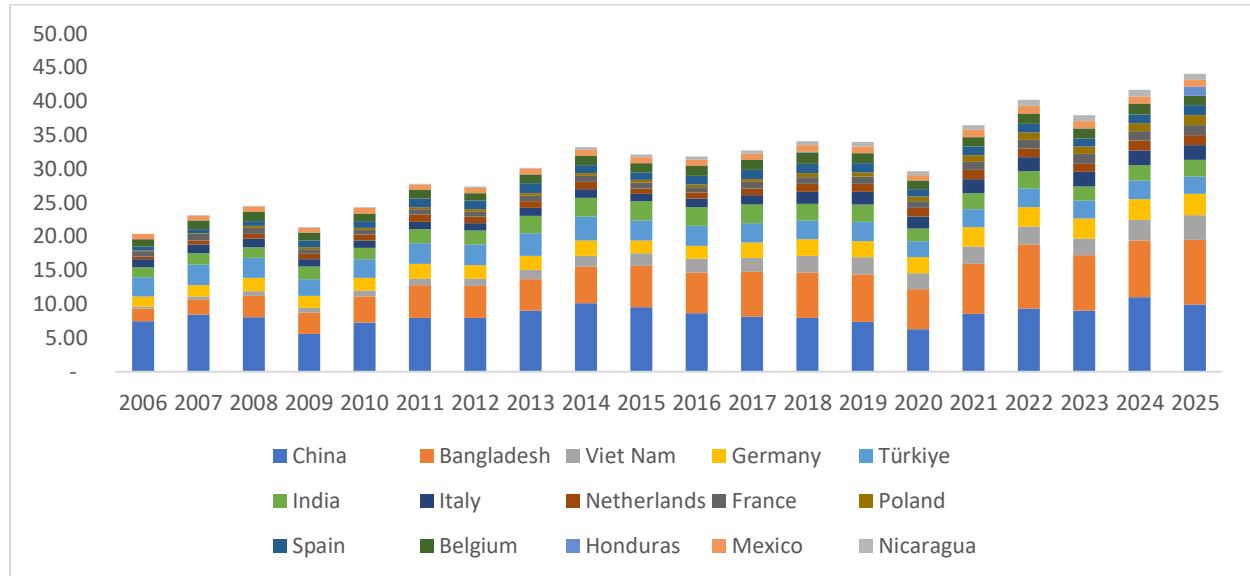
Recent momentum shows that the broadening of demand is continuing. Between 2023 and 2025, Poland's imports increased by 45.2%, Spain's by 31.7%, Austria's by 31.6%, Germany's by 20.5%, the United Kingdom's by 16.9%, and Canada's by 14.9%. By contrast, China declined by 8.4%, the Republic of Korea by 4.9%, Japan by 1.5%, and the USA by 0.5%. Jerseys & Pullovers are therefore exported by a relatively concentrated group of major suppliers but sold into an increasingly diverse set of markets.

T-shirts: A Stable Market Structure, a Transformed Competitive Order

T-shirts (HS 6109) are the second-largest product category in world knit garment trade. Exports increased from approximately US\$31.3 billion in 2006 to a record US\$59.0 billion in 2025, an increase of 88.4% and a long-term CAGR of 3.39%. Growth has been particularly strong since 2020, with exports rising by 43.4% in five years. At the top of the market, concentration changed remarkably little: the three largest exporters accounted for 39.0% of

world exports in 2006 and 39.3% in 2025. Beneath this apparent stability, however, the competitive order was substantially transformed.

Table 10: Leading Exporters of T-shirts (US\$ billion)

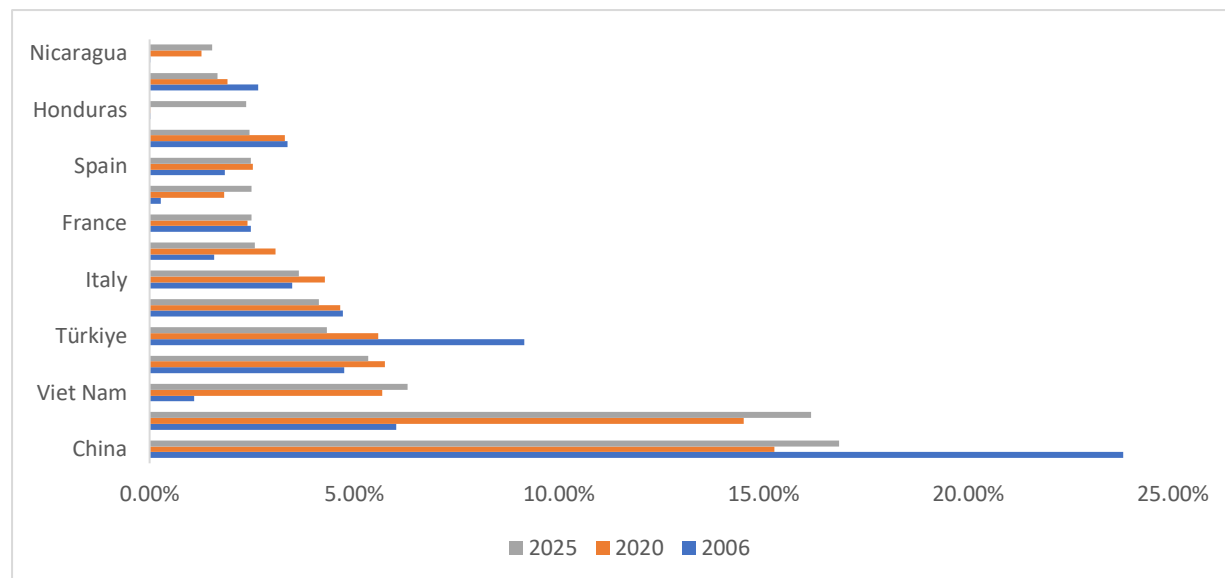


China remains the world's largest T-shirt exporter, but its lead has narrowed dramatically. Exports increased from US\$7.45 billion in 2006 to US\$9.94 billion in 2025, while its share fell from 23.79% to 16.85%. Bangladesh moved rapidly toward parity, increasing exports from US\$1.89 billion to US\$9.54 billion and raising its share from 6.02% to 16.16%. By 2025, only about US\$400 million separated the two countries, compared with 2006 when China exported almost four times as much. Bangladesh also generated approximately 27.6% of the entire net increase in world T-shirt exports, making it the single largest contributor to market growth.

Viet Nam represents another major transformation, advancing from 20th position in 2006 to third in 2025 and increasing its share from 1.09% to 6.30%. Together, China, Bangladesh, and Viet Nam generated almost 49% of the net increase in global T-shirt exports. Poland also recorded a strong structural advance, moving from 42nd position and a 0.28% share in 2006 to tenth position and 2.49% in 2025. The Netherlands and Spain strengthened substantially as well, while Germany retained fourth position and modestly increased its share.

Türkiye moved in the opposite direction. It was the world's second-largest T-shirt exporter in 2006 with a 9.16% share, but by 2025 had fallen to fifth position and 4.32%, with export value also below its 2006 level.

Table 10-1: Changing Shares of Leading T-shirt Exporters



The market-share comparison highlights the scale of the redistribution. China lost almost seven percentage points of global share, Bangladesh gained more than ten percentage points, and Viet Nam gained more than five. Poland moved from a negligible position to almost 2.5% of the market, while Türkiye's share was almost halved. Hong Kong, China, now outside the leading group, experienced another major structural decline, falling from sixth position and a 4.45% share in 2006 to 23rd position and only 1.02% in 2025.

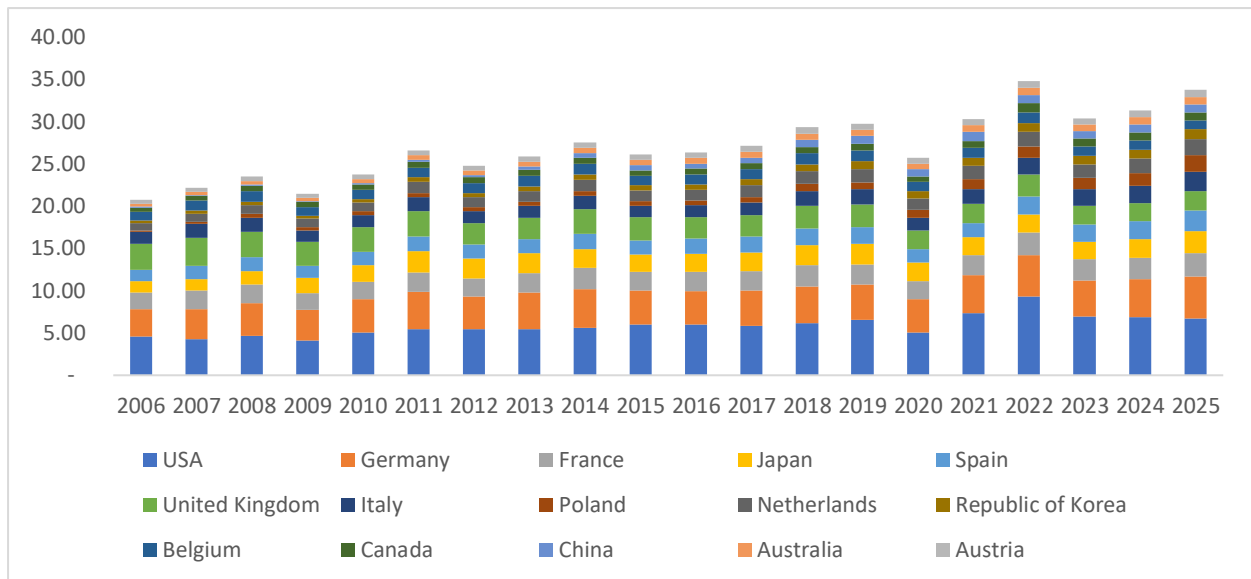
Despite these large shifts, concentration among the three largest exporters was almost unchanged between 2006 and 2025. The countries that ranked among the fifteen leading exporters in 2025 also represented roughly three-quarters of world T-shirt exports at both ends of the period, although this is a fixed-cohort comparison rather than a contemporaneous concentration measure. These same fifteen countries generated approximately 85.6% of net export growth between 2006 and 2025. The defining feature of the market is therefore structural redistribution within a broadly stable top-level competitive structure.

The latest data indicate that the reshuffling is continuing. Between 2023 and 2025, Viet Nam's exports increased by 50.6%, Poland's by 35.4%, Spain's by 21.6%, the Netherlands' by 21.4%, Bangladesh's by 17.6%, and India's by 16.5%. China also expanded, but by a more moderate 9.3%, while Mexico contracted by 12.7% and Türkiye by 5.0%. Immediately outside the fifteen leading exporters, Cambodia grew by 37.5%, Pakistan by 29.1%, and Egypt by 36.5%. The global T-shirt market has therefore retained a remarkably stable degree of concentration at the top while the countries occupying that competitive space have changed substantially.

T-shirts: Demand Spreads Across a Much Broader Global Market

The geography of T-shirt imports has changed far more dramatically than the geography of export supply. The three largest import markets accounted for 39.47% of world T-shirt imports in 2006 but only 28.64% in 2025, while the share of the five largest declined from 51.75% to 38.65%. The countries that ranked among the fifteen leading import markets in 2025 collectively accounted for 80.25% of world imports in 2006, compared with 67.10% in 2025, showing how much demand has expanded beyond the markets that lead today.

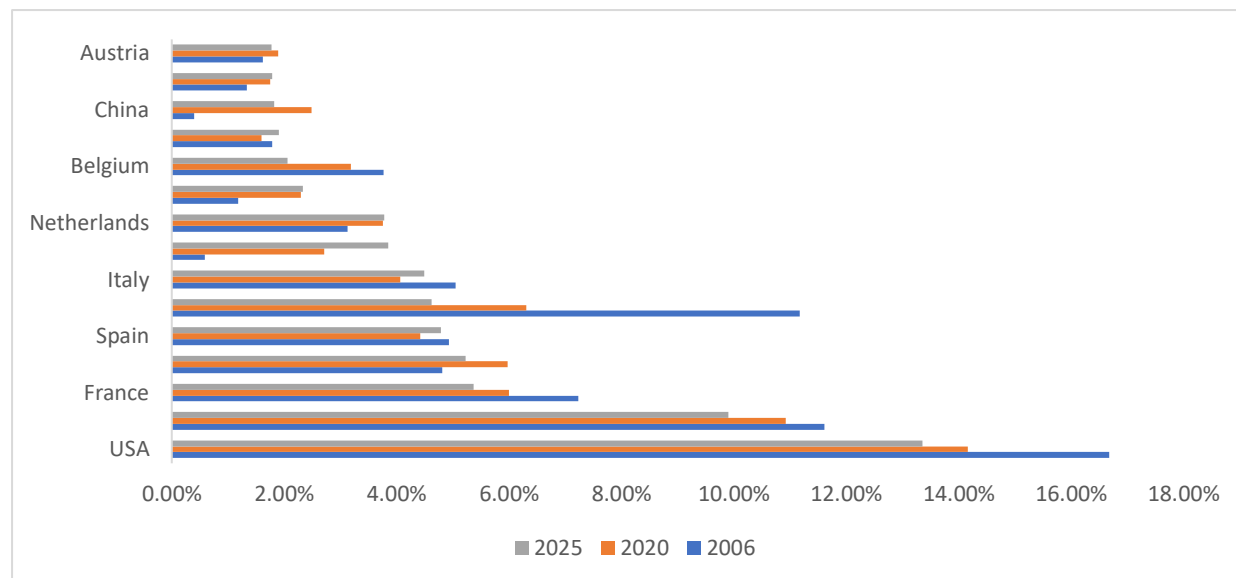
Table 11: Leading Importers of T-shirts



The USA remains the largest T-shirt import market, but its relative dominance has weakened, with its share declining from 16.68% in 2006 to 13.36% in 2025. Germany retained second position throughout the period, although its share declined moderately from 11.61% to 9.91%. Its recent performance has been stronger, with imports increasing by 17.4% between 2023 and 2025. France moved from fourth to third position despite its share declining from 7.23% to 5.37%.

Japan followed a different trajectory, moving from seventh to fourth position and increasing its share modestly from 4.81% to 5.23%. Particularly notable was its 27.4% import growth between 2023 and 2025 following earlier weakness. Spain also strengthened, rising from sixth to fifth position and recording 18.7% growth during the latest two years. Poland advanced from 25th position and a share of only 0.59% in 2006 to eighth position and 3.85% in 2025. The Netherlands and the Republic of Korea also gained significantly, while the United Kingdom experienced one of the clearest structural declines, falling from third position and an 11.17% share in 2006 to sixth position and 4.62% in 2025.

Table 11-1: Changing Shares of Leading T-shirt Importers



Market-share changes confirm the broadening of demand. The USA, Germany, France, and the United Kingdom all accounted for smaller shares of global imports in 2025 than in 2006, while gains were distributed across a wider group including Japan, Poland, the Netherlands, the Republic of Korea, Australia, and Austria.

The contrast with export supply is particularly striking. The three largest T-shirt exporters accounted for 39.3% of world exports in 2025, compared with 28.64% for the three largest import markets. The countries that make up today's fifteen leading export markets retained a broadly similar collective footprint between 2006 and 2025, while the corresponding group of leading import markets saw its collective share fall substantially. Manufacturing and export supply therefore remain comparatively concentrated even as the geography of demand has broadened.

The contribution to growth reinforces this pattern. The current three largest import markets—the USA, Germany, and France—generated only about 20% of net import growth between 2006 and 2025, while the fifteen leading import markets in 2025 collectively accounted for 57.2%. Approximately 43% of the entire increase therefore came from markets outside this group.

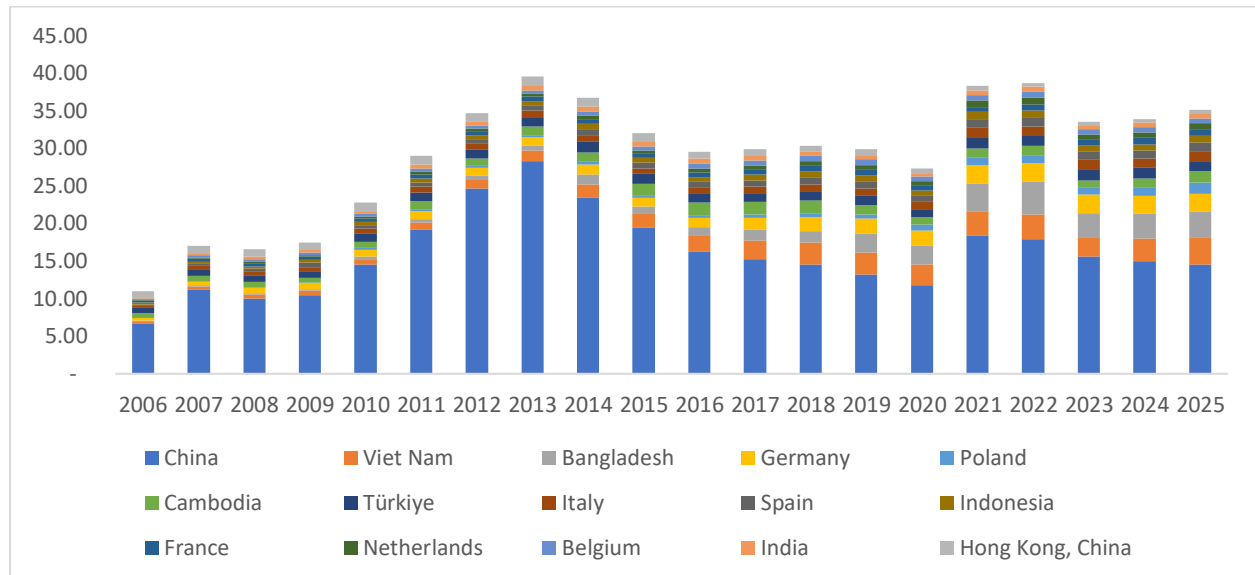
Recent momentum points in the same direction. Between 2023 and 2025, Poland's imports increased by 46.8%, Austria's by 28.8%, Japan's by 27.4%, Spain's by 18.7%, the Netherlands' by 18.5%, Germany's by 17.4%, Australia's by 16.4%, and the Republic of Korea's by 14.9%. By contrast, Belgium, the USA, and China recorded modest declines. The global T-shirt business is therefore increasingly supported by a wider range of destination markets, even as export supply remains centered on a more concentrated group of manufacturing economies.

Women's Suits & Trousers: The Fastest-Rising Major Knit Category

Women's Suits & Trousers (HS 6104) have undergone one of the most important transformations within world knit garment trade. Exports increased from approximately US\$14.1 billion in 2006 to US\$41.9 billion in 2025, almost tripling over nineteen years and recording a long-term CAGR of 5.89%—well above the growth of knit garments overall. Recent growth has moderated, however: exports increased by 21.7% between 2020 and 2023

and by a further 5.7% between 2023 and 2025. The 2025 value remained approximately 7.7% below the historical peak of US\$45.4 billion reached in 2022.

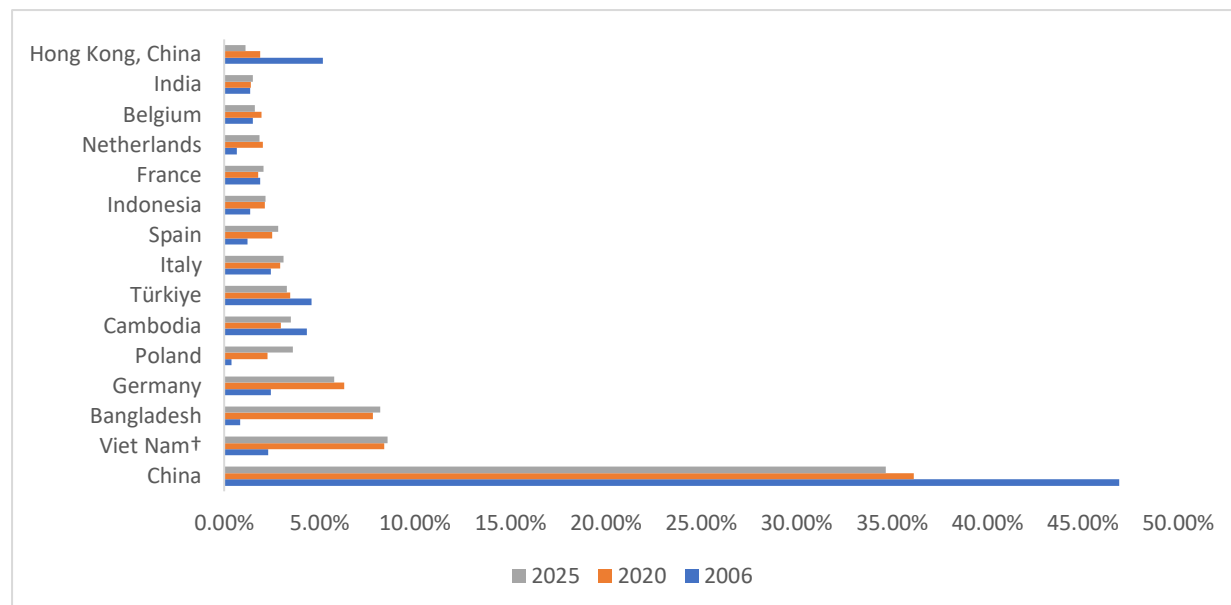
Table 12: Leading Exporters of Women's Suits & Trousers (US\$ billion)



China remains overwhelmingly the largest exporter, but its dominance has weakened substantially. Chinese exports increased from US\$6.6 billion in 2006 to US\$14.5 billion in 2025, yet its share fell from 46.91% to 34.68% as the rest of the market expanded faster. The major beneficiaries were Viet Nam and Bangladesh. Viet Nam moved from seventh to second position and increased its share from 2.29% to 8.57%, while Bangladesh advanced from 21st position and only 0.84% of the market to third place and 8.17%. Together, the two countries increased their combined share from just over 3% to almost 17%.

Growth contribution provides an equally revealing perspective. China generated approximately 28.4% of the net increase in world HS 6104 exports, Bangladesh 11.9%, and Viet Nam 11.8%. Together, the three current leaders accounted for approximately 52% of all additional exports since 2006. Germany strengthened from fifth to fourth position and increased its share from 2.46% to 5.77%, while Poland advanced from 37th to fifth position and Spain more than doubled its share from 1.23% to 2.85%. The strongest long-term retreat occurred in Hong Kong, China, which fell from second position and a 5.18% share in 2006 to 15th position and 1.12% in 2025. Türkiye also lost substantial relative ground, declining from third to seventh position despite higher export value.

Table 12-1: Changing Shares of Leading Women's Suits & Trousers Exporters



The competitive structure has broadened considerably at the very top. The three largest exporters accounted for 56.7% of world exports in 2006 but 51.4% in 2025, indicating reduced dependence on the dominant suppliers. Much of China's lost share has been captured by Viet Nam, Bangladesh, Germany, Poland, and other rapidly expanding exporters rather than by any single successor.

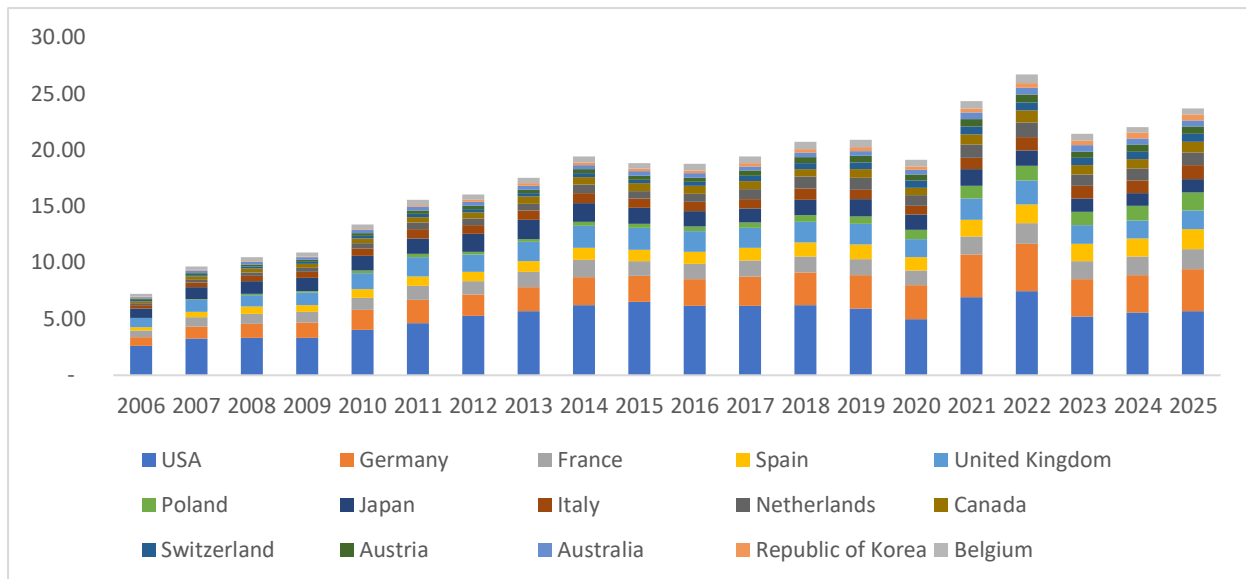
The countries that ranked among the fifteen leading exporters in 2025 collectively accounted for 79.8% of world exports in 2006 and 83.9% in 2025. This fixed-cohort comparison shows the expanding historical footprint of today's leading suppliers rather than a direct increase in concentration among the fifteen largest exporters in each year.

Recent performance shows that the redistribution remains active. Between 2023 and 2025, Poland's exports increased by 59.2%, Cambodia's by 49.8%, and Viet Nam's by 39.0%, followed by the Netherlands at 19.4%, India at 16.2%, and Spain at 11.3%. China declined by 6.9%, Türkiye by 3.7%, and Germany by 1.8%, while Italy was essentially unchanged. Women's Suits & Trousers therefore remain anchored by China, but the defining transformation has been the emergence of a substantially stronger competitive group beneath it.

Women's Suits & Trousers: Demand Expands Beyond the Traditional Markets

The demand side of Women's Suits & Trousers (HS 6104) shows an even clearer geographical broadening than the export side. The three largest import markets accounted for 44.2% of world imports in 2006 but only 33.4% in 2025, while the share of the five largest declined from 58.3% to 43.5%. The countries that ranked among the fifteen leading import markets in 2025 collectively accounted for 82.7% of world imports in 2006, compared with 70.5% in 2025, showing how much demand has expanded beyond the markets that lead today.

Table 13: Leading Importers of Women's Suits & Trousers

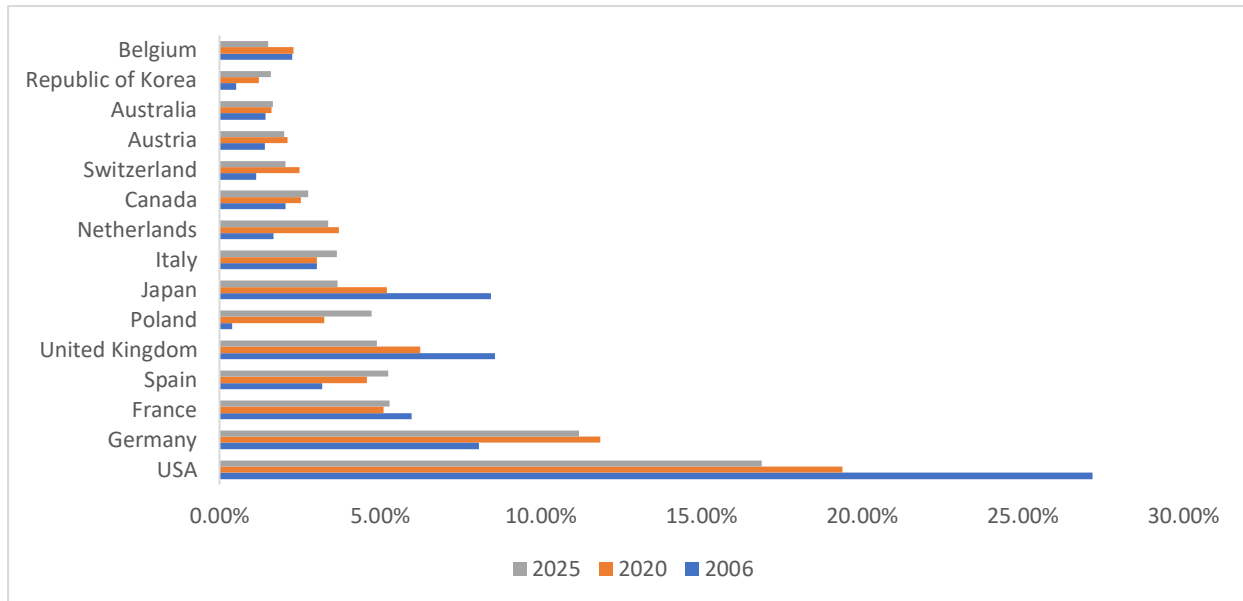


The USA remains the largest market, but its dominance has weakened considerably. Its share fell from 27.17% in 2006 to 16.87% in 2025—a decline of more than ten percentage points. Germany followed a very different trajectory, rising from fourth to second position and increasing its share from 8.07% to 11.19%. Its imports grew by a further 14.1% between 2023 and 2025, making Germany one of the few large mature markets to combine scale, long-term share gains, and continued recent growth.

France advanced from fifth to third position despite a modest decline in market share, while Spain rose from seventh to fourth position and increased its share from 3.20% to 5.26%. Poland recorded the most dramatic ranking change, moving from 31st position and only 0.38% of world imports in 2006 to sixth position and 4.72% in 2025.

The Netherlands, Canada, and the Republic of Korea also strengthened substantially. The Netherlands doubled its share from 1.68% to 3.37%, Canada increased from 2.06% to 2.77%, and the Republic of Korea advanced from 24th to 14th position while tripling its share from 0.53% to 1.60%. In contrast, the United Kingdom fell from second to fifth position and its share declined from 8.58% to 4.90%, while Japan dropped from third to seventh and from 8.46% to 3.67%.

Table 13-1: Changing Shares of Leading Women's Suits & Trousers Importers



The market-share comparison reinforces this redistribution. The USA remains the largest market, but its former dominance has diminished sharply, while the United Kingdom and Japan have also surrendered substantial relative weight. Germany, Spain, Poland, the Netherlands, Canada, and the Republic of Korea have moved in the opposite direction.

In 2025, the fifteen leading exporters accounted for approximately 83.9% of world exports, whereas the fifteen leading import markets represented only 70.5% of imports. Manufacturing and export supply were therefore considerably more concentrated than destination demand at the end of the period.

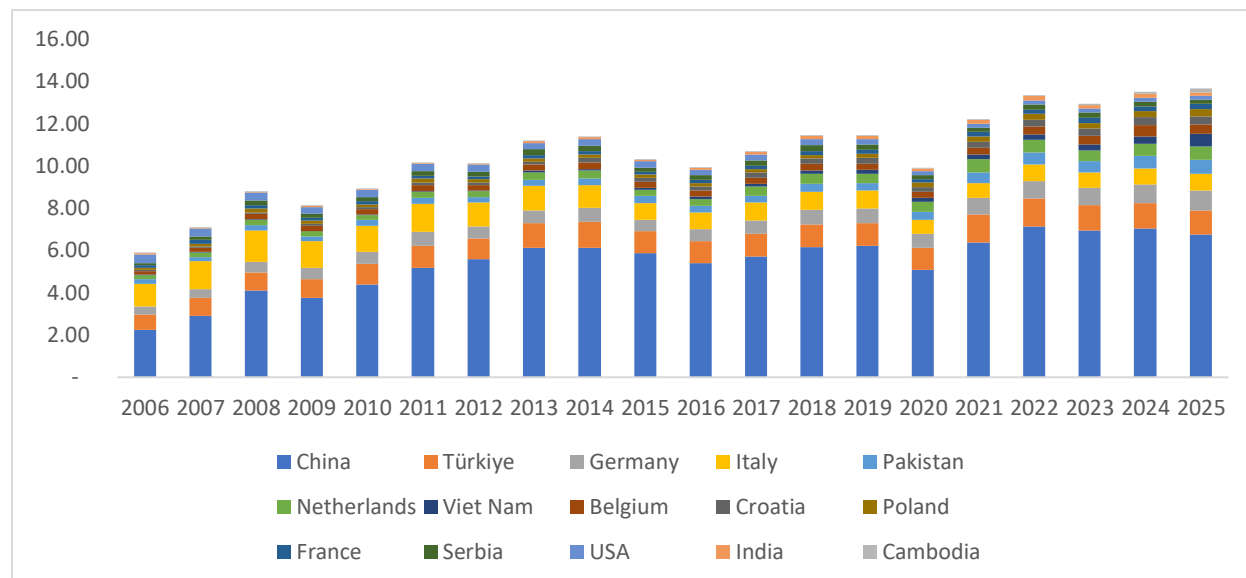
Growth contribution shows how broadly additional demand has been distributed. The current three largest markets—the USA, Germany, and France—generated only about 30% of net import growth between 2006 and 2025, while the fifteen leading import markets in 2025 collectively accounted for 68.6%. More than 31% of additional imports therefore came from markets outside this group.

Recent momentum points in the same direction. Between 2023 and 2025, Poland's imports increased by 34.9%, Austria's by 28.3%, the Republic of Korea's by 19.4%, Canada's by 17.1%, Spain's by 16.5%, and Germany's by 14.1%, while Italy and the Netherlands also recorded double-digit growth. The expansion of Women's Suits & Trousers has therefore been accompanied by a substantial broadening of its market base, with demand increasingly distributed beyond the traditional dominant destinations.

Stockings & Socks: Growth Becomes More Concentrated

Stockings & Socks (HS 6115) present a different competitive pattern from the larger knit garment categories examined earlier. World exports almost doubled between 2006 and 2025, while concentration at the top increased. The three largest exporters raised their combined share from 48.7% to 54.2%, while the five largest increased from 58.3% to 63.1%. A growing proportion of global HS 6115 exports has therefore been captured by the largest suppliers.

Table 14: Leading Exporters of Stockings & Socks (US\$ billion)

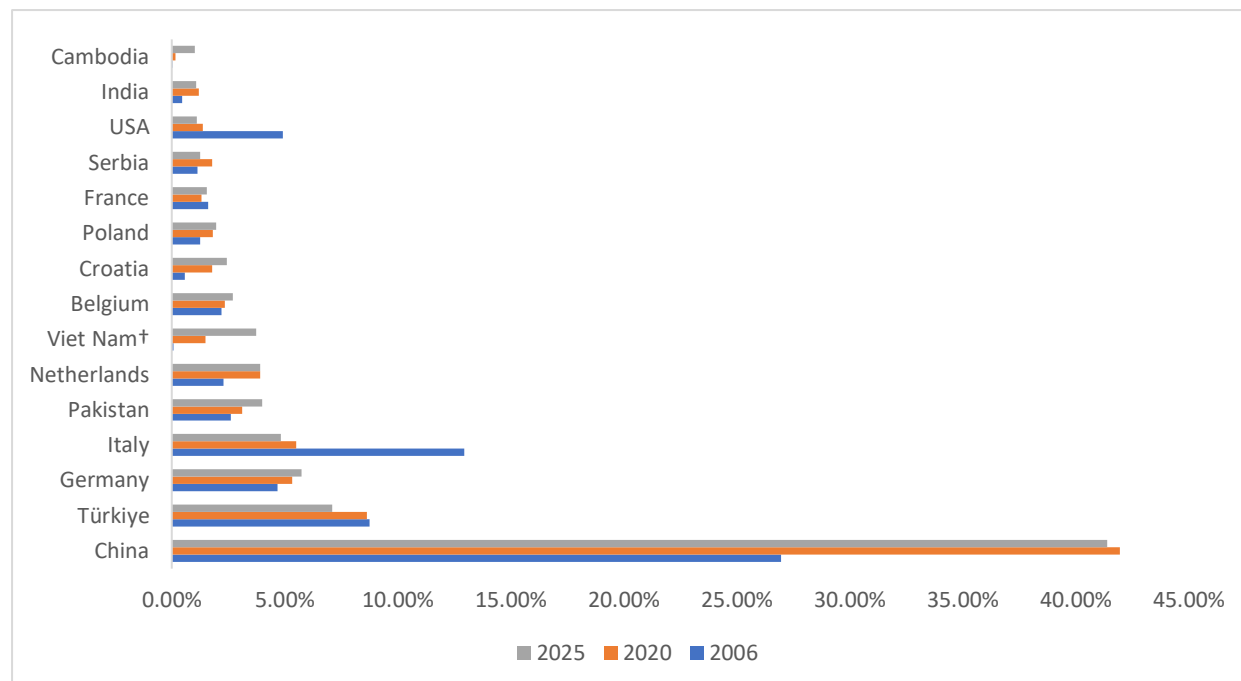


China is the principal driver of this shift. Its exports increased from approximately US\$2.24 billion in 2006 to US\$6.75 billion in 2025, while its global share surged from 26.96% to 41.39%. China alone generated approximately 56.4% of the entire net increase in world Stockings & Socks exports over the period. This distinguishes HS 6115 from Jerseys & Pullovers, T-shirts, and Women's Suits & Trousers, where China remained the largest supplier but lost market share.

Below China, competitive positions changed considerably. Türkiye moved from third to second position, although its share declined from 8.75% to 7.09%, while Germany advanced from fifth to third and increased its share from 4.68% to 5.75%. Italy experienced the sharpest decline among the traditional leaders: it was the world's second-largest exporter in 2006 with a 12.94% share, but by 2025 its exports were below their 2006 level, its share had fallen to 4.83%, and its ranking had slipped to fourth.

Pakistan stands out as an important emerging competitor. Exports increased from approximately US\$220 million in 2006 to US\$650 million in 2025, raising its share from 2.62% to 4.01% and moving it from seventh to fifth position. The Netherlands also strengthened, increasing its share from 2.30% to 3.92%. Viet Nam advanced from 62nd position in 2006 to seventh in 2025, although its latest reported value is based on mirror data and should therefore be interpreted cautiously. Croatia advanced from 29th to ninth position, while Poland moved from 14th to tenth.

Table 14-1: Changing Shares of Leading Stockings & Socks Exporters



The market-share comparison confirms a substantial redistribution of competitive weight. China gained more than 14 percentage points of global share, while Pakistan, Germany, the Netherlands, Viet Nam, Croatia, and Poland also strengthened their positions. Italy and the USA moved sharply in the opposite direction; the USA fell from fourth to 13th position and its share declined from 4.91% to 1.09%.

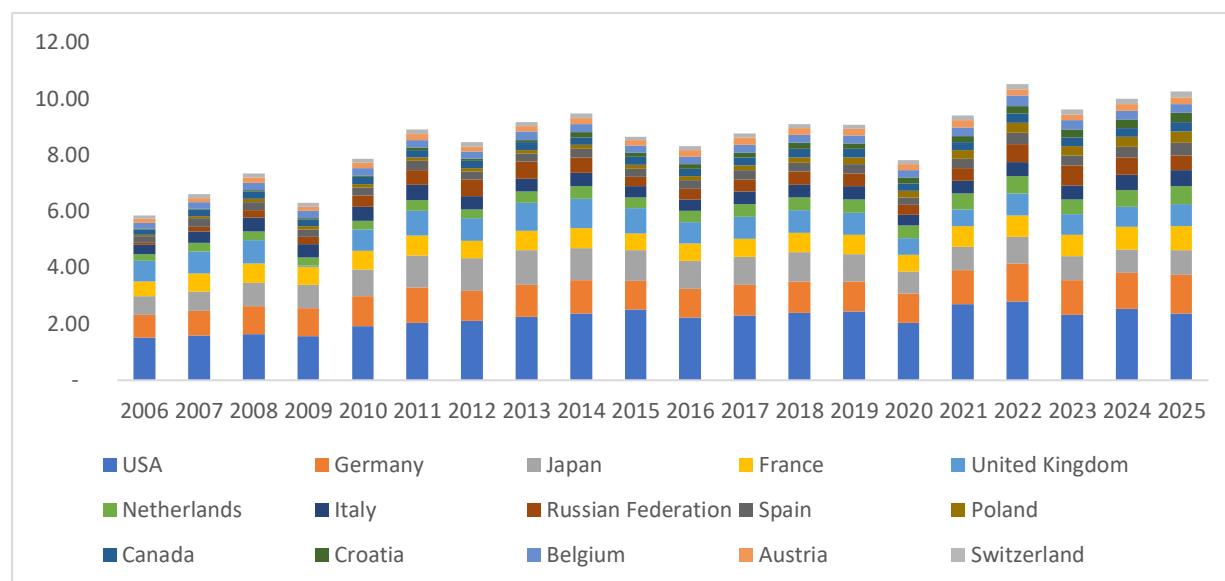
Growth itself was highly concentrated. China generated approximately 56.4% of the net increase, while the fifteen countries that ranked as the largest exporters in 2025 collectively accounted for about 97.7% of all additional world exports between 2006 and 2025.

Recent performance, however, shows greater movement beneath the leading supplier. World exports grew by only 4.5% between 2023 and 2025, compared with 28.6% between 2020 and 2023. Against this weaker backdrop, Cambodia expanded by 147.1%, the Netherlands by 28.1%, Pakistan by 21.9%, Poland by 20.9%, Croatia by 15.5%, and Germany by 14.9%. China declined by 2.9%, while Türkiye, Serbia, and the USA also contracted. Stockings & Socks therefore combine stronger concentration at the top—driven overwhelmingly by China—with continuing competitive movement among the suppliers beneath it.

Stockings & Socks: Demand Broadens as Supply Concentrates

The import side of Stockings & Socks (HS 6115) presents a strong contrast with the export side. While manufacturing and export supply have become more concentrated among the largest suppliers, import demand has moved in the opposite direction. The three largest import markets accounted for 40.5% of world imports in 2006 but only 32.2% in 2025, while the share of the five largest declined from 56.2% to 43.5%. Demand has therefore become substantially less dependent on the largest destination markets.

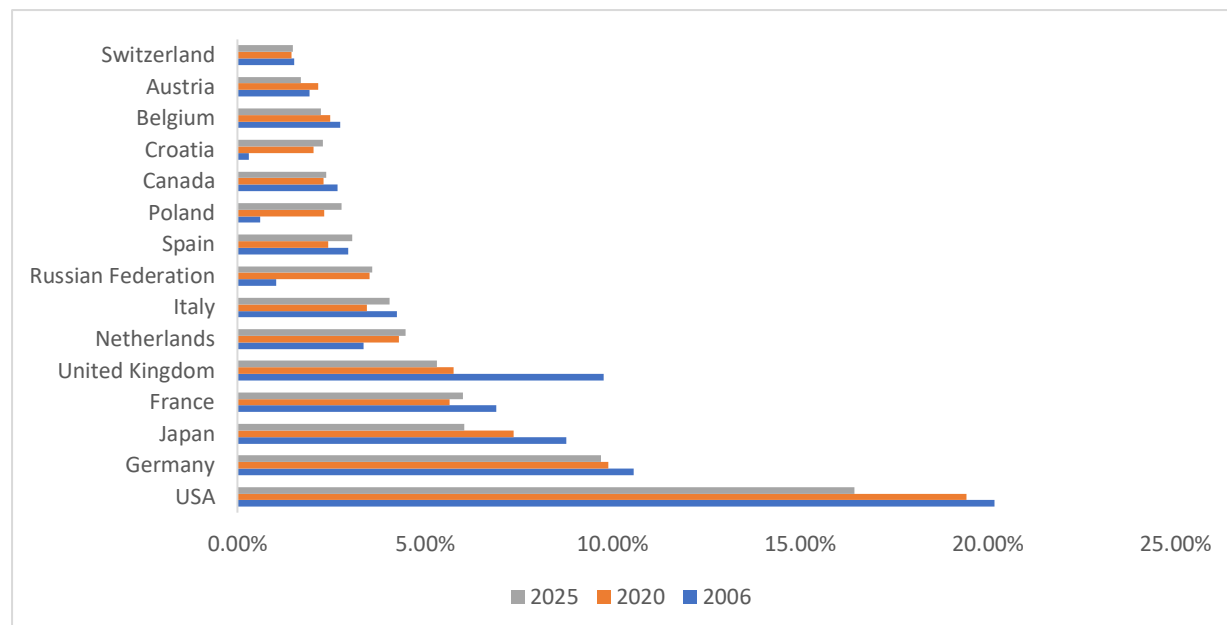
Table 15: Leading Importers of Stockings & Socks (US\$ billion)



The USA remains the largest import market, but its share declined from 20.18% in 2006 to 16.46% in 2025. Recent growth has also been subdued, at only 2.0% between 2023 and 2025. Germany retained second position throughout the period and experienced a more modest decline in share, from 10.56% to 9.69%, while its imports grew by 13.1% after 2023. Japan moved from fourth to third position, although its share fell from 8.77% to 6.05%. France similarly gained rank while losing some long-term share.

The United Kingdom recorded one of the clearest structural declines, falling from third to fifth position as its share almost halved from 9.76% to 5.32%. The Netherlands moved in the opposite direction, increasing its share from 3.36% to 4.48% and rising from seventh to sixth position. Poland advanced from 30th position and only 0.60% of global imports in 2006 to tenth position and 2.77% in 2025, while Croatia rose from 39th to 12th and increased its share from 0.30% to 2.27%.

Table 15-1: Changing Shares of Leading Stockings & Socks Importers



The market-share comparison highlights the growing dispersion of demand. The USA, Germany, Japan, and the United Kingdom all accounted for smaller shares of the world market in 2025 than in 2006, while gains were distributed across markets including the Netherlands, Poland, Croatia, and several other European economies.

The contrast with export supply is particularly striking. In 2025, the fifteen leading exporters accounted for 83.8% of world exports, compared with 71.5% for the fifteen leading import markets. The countries that ranked among the fifteen leading importers in 2025 collectively accounted for 79.1% of world imports in 2006, showing that demand has increasingly expanded beyond the markets that lead today.

Growth contribution reinforces this divergence. The current three largest markets—the USA, Germany, and Japan—generated only about 24% of net import growth between 2006 and 2025, while the fifteen leading import markets in 2025 collectively accounted for approximately 64.9%. Around 35% of the entire increase therefore came from markets outside this group.

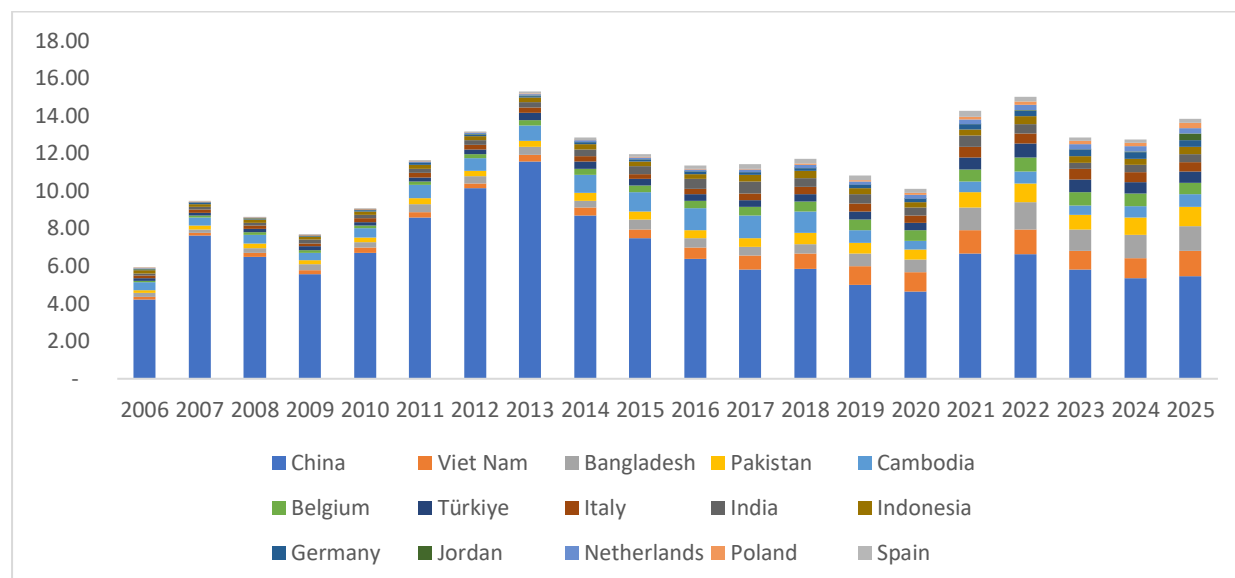
Recent momentum is also shifting toward a broader range of destinations. Between 2023 and 2025, Spain's imports increased by 25.4%, the Netherlands' by 21.5%, Poland's by 20.5%, Austria's by 19.3%, and Italy's by 17.0%, while Germany, France, Croatia, and Canada also outpaced overall market growth. By contrast, the Russian Federation declined sharply, Belgium contracted slightly, and the USA and Japan grew by only around 2%. Stockings & Socks therefore combine increasingly concentrated export supply—driven above all by China—with a progressively more diversified destination market.

Men's Suits & Trousers: China's Dominance Gives Way to a Broader Competitive Field

Men's Suits & Trousers (HS 6103) more than doubled in world export value, rising from approximately US\$7.3 billion in 2006 to US\$16.6 billion in 2025, equivalent to a long-term CAGR of 4.42%. The 2025 value nevertheless remained about 8.3% below the historical peak of US\$18.1 billion reached in 2022. More importantly, the competitive structure changed sharply: the three largest exporters accounted for 65.8% of world exports in 2006

but only 48.9% in 2025, while the five largest declined from 70.8% to 59.2%. HS 6103 therefore remains dominated by major suppliers, but competitive weight at the top has become much more widely distributed.

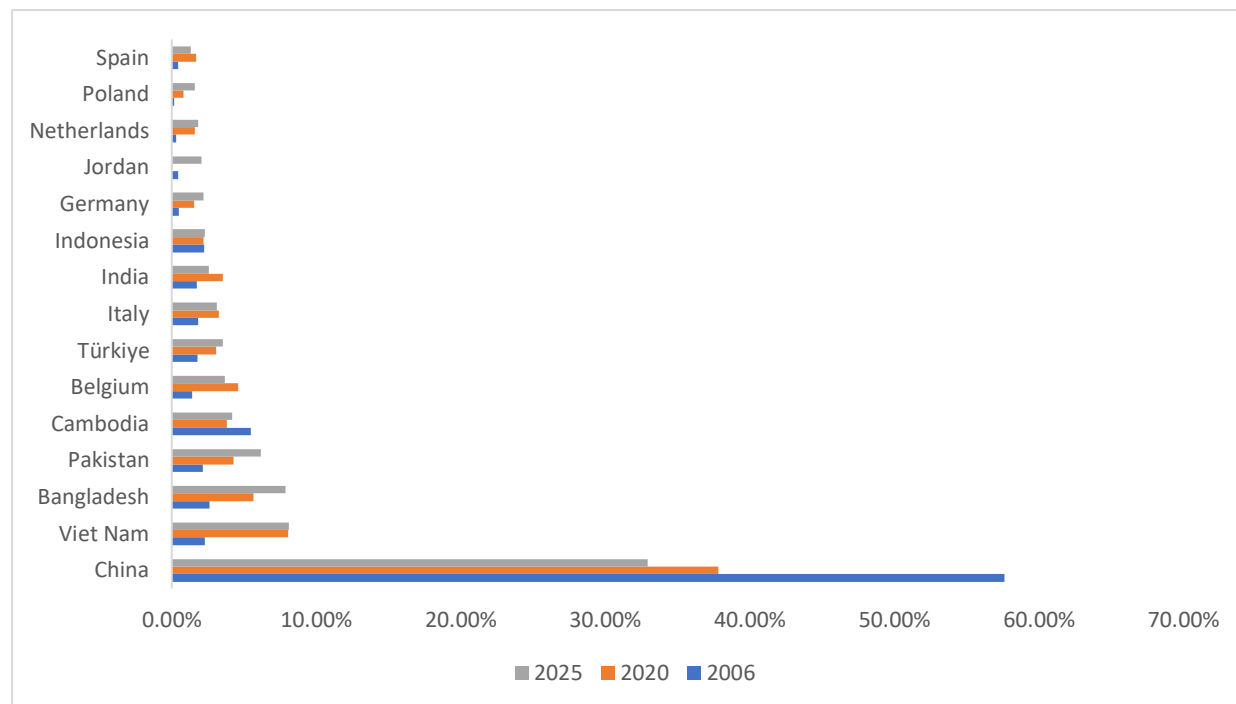
Table 16: Leading Exporters of Men's Suits & Trousers (US\$ billion)



China remains the largest exporter, but its dominance has declined dramatically. Exports increased from approximately US\$4.2 billion in 2006 to US\$5.5 billion in 2025, yet its share fell from 57.61% to 32.92%—a loss of almost 25 percentage points. The principal beneficiaries were Viet Nam, Bangladesh, and Pakistan. Viet Nam advanced from fifth to second position and increased its share from 2.31% to 8.09%; Bangladesh rose from fourth to third and from 2.63% to 7.86%; and Pakistan moved from eighth to fourth while increasing its share from 2.17% to 6.14%.

Cambodia followed a different trajectory. Although it was already the second-largest exporter in 2006 and lost relative share over the longer period, exports increased by 38.4% between 2023 and 2025. Several European exporters also strengthened their positions: Belgium moved from 13th to sixth, Germany from 22nd to 11th, the Netherlands from 30th to 13th, and Poland from 37th to 14th. The redistribution of HS 6103 export activity has therefore extended well beyond South and Southeast Asia.

Table 16-1: Changing Shares of Leading Men's Suits & Trousers Exporters



The market-share comparison reveals one of the most pronounced redistributions of competitive strength within knit garments. China alone controlled almost 58% of world exports in 2006; by 2025, its share had fallen to roughly one-third. At the same time, Viet Nam, Bangladesh, and Pakistan expanded substantially and now occupy three of the four leading positions.

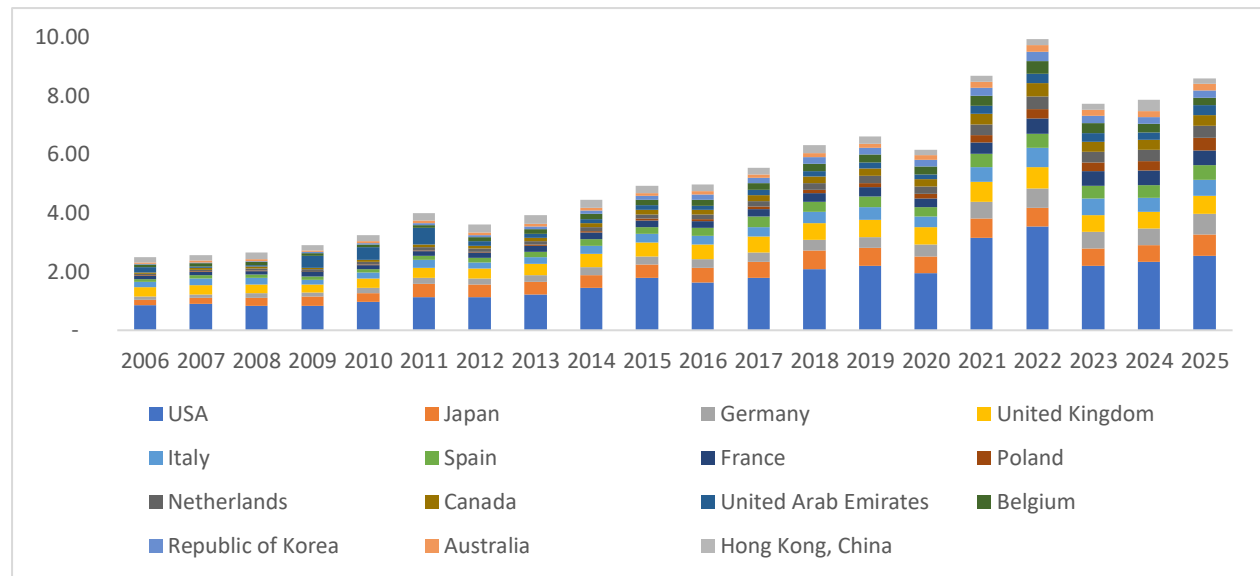
Growth contribution tells the same story. China generated only about 13.5% of the net increase in world exports, compared with 12.6% for Viet Nam, 12.0% for Bangladesh, and 9.3% for Pakistan. The current three largest exporters collectively generated only 38.1% of net growth, while the fifteen countries that ranked as the largest exporters in 2025 accounted for approximately 85.1%. Growth has therefore become far less dependent on a single dominant supplier.

Recent performance indicates that the competitive shift is still underway. Between 2023 and 2025, Poland's exports increased by 48.9%, Cambodia's by 38.4%, Pakistan's by 29.0%, India's by 26.2%, and Bangladesh's by 15.5%. Viet Nam also recorded growth of 34.0%, although its 2025 value is based on mirror data and should be interpreted accordingly. In contrast, Belgium contracted by 13.6%, Türkiye by 10.3%, Italy by 8.5%, and China by 5.9%. China remains the largest exporter, but Viet Nam, Bangladesh, and Pakistan have become major competitors, while Poland and Cambodia continue to strengthen rapidly.

Men's Suits & Trousers: Demand Becomes Far More Geographically Diverse

The import side of Men's Suits & Trousers (HS 6103) shows a pronounced broadening of the global demand base. The three largest import markets accounted for 41.3% of world imports in 2006 but only 30.8% in 2025, while the share of the five largest declined from approximately 52.0% to 39.8%. The countries that ranked among the fifteen leading import markets in 2025 collectively accounted for 78.5% of world imports in 2006, compared with 66.7% in 2025, showing how much demand has expanded beyond the markets that lead today.

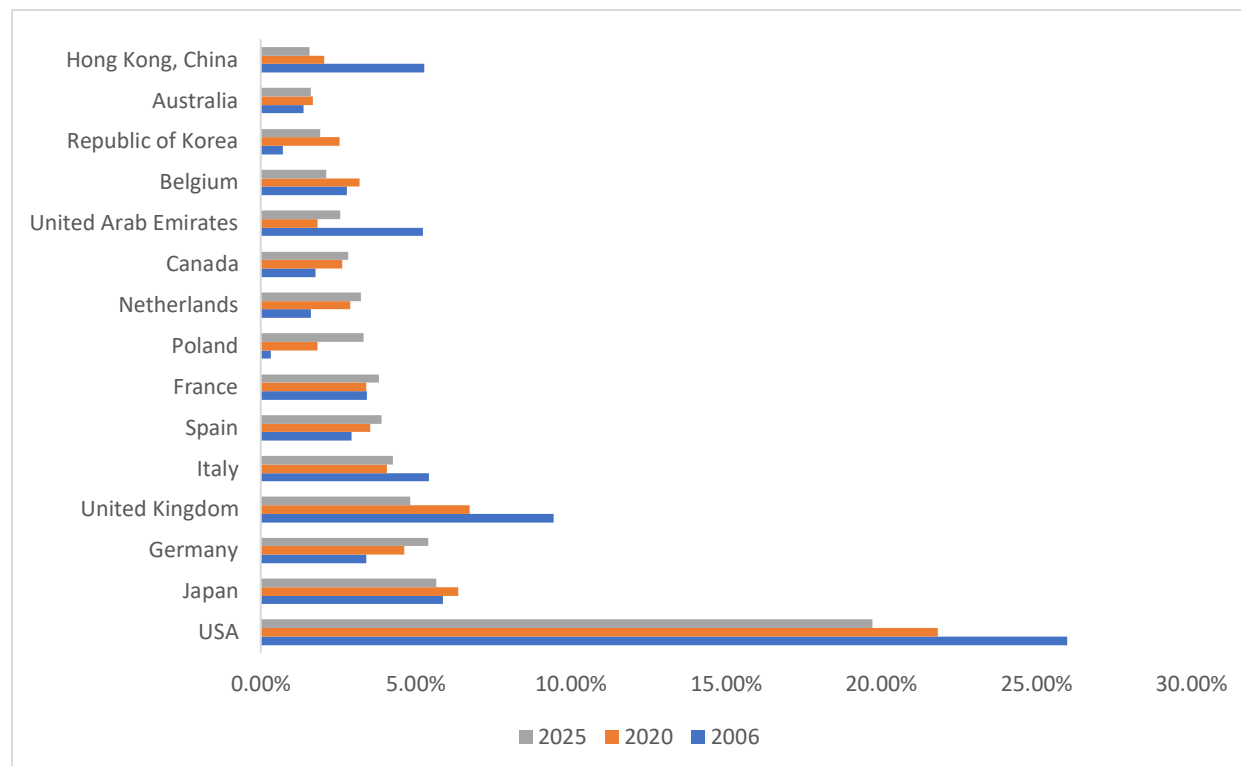
Table 17: Leading Importers of Men's Suits & Trousers (US\$ billion)



The USA remains the largest market, but its dominance has weakened. Imports almost tripled between 2006 and 2025, yet its share declined from 26.00% to 19.71% as the global market expanded even faster. Imports increased by a further 15.2% between 2023 and 2025. Japan moved into second position while maintaining a broadly stable share of around 5.7%, and its imports accelerated by 27.0% after 2023. Germany recorded one of the strongest structural gains, rising from eighth to third position and increasing its share from 3.41% to 5.40%.

The United Kingdom followed the opposite path, falling from second to fourth position as its share declined from 9.44% to 4.83%. Spain strengthened from ninth to sixth position and increased its share from 2.92% to 3.88%. Poland recorded the most dramatic rise, with imports increasing from only about US\$11 million in 2006 to US\$427 million in 2025, its share rising from 0.33% to 3.31%, and its ranking advancing from 38th to eighth. The Netherlands and Canada also strengthened, increasing their shares from 1.61% to 3.23% and from 1.77% to 2.82%, respectively.

Table 17-1: Changing Shares of Leading Men's Suits & Trousers Importers



The market-share comparison makes the redistribution particularly clear. The USA remains dominant but has lost more than six percentage points of global share, while the United Kingdom and Hong Kong, China have also experienced substantial structural erosion. Hong Kong, China fell from fifth position and a 5.26% share in 2006 to 15th position and only 1.56% in 2025. Against these declines, Germany, Poland, the Netherlands, Canada, Spain, and the Republic of Korea all strengthened their positions.

The contrast with export supply is substantial. In 2025, the fifteen leading exporters accounted for approximately 83.3% of world exports, compared with only 66.7% for the fifteen leading import markets. Manufacturing and export supply were therefore considerably more concentrated than destination demand.

The current three largest importers—the USA, Japan, and Germany—generated only about 29.2% of net global import growth between 2006 and 2025, while the fifteen leading import markets in 2025 collectively accounted for 63.6%. Approximately 36% of all additional demand therefore came from markets outside this group.

Recent momentum reinforces the same pattern. Between 2023 and 2025, Poland recorded the strongest growth among the major markets at 46.5%, followed by Japan at 27.0%, Germany at 20.4%, Spain at 17.1%, and the USA at 15.2%. In contrast, Belgium contracted by 22.5%, France by 4.1%, Italy by 2.6%, and Hong Kong, China by 2.4%. Türkiye, currently outside the fifteen leading markets, also strengthened considerably. Overall, Men's Suits & Trousers remain supplied by a relatively concentrated group of exporters, while demand has become increasingly multi-destination.

At the Six-Digit Level: The Fiber Shift Becomes Much Clearer

The six-digit analysis reveals competitive changes that are less visible at the broader HS 61 level. Across the 126 six-digit product lines in the dataset, 106 reported trade in 2025. Their combined exports increased from approximately US\$144.7 billion in 2006 to US\$288.1 billion in 2025, almost doubling over the period. The fifteen products that ranked highest in 2025 collectively represented 67.1% of HS 61 exports in 2006 and 66.7% in 2025. The principal transformation has therefore occurred within the product hierarchy—and particularly between fiber-based product categories—rather than through a major expansion or contraction of the historical footprint of today’s leading products.

Table 18: Major Export Products in Knit Garments at the Six-Digit Level (US\$ billion)

	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Cotton T-shirts	23	26	27	24	26	28	27	28	29	28	28	29	32	32	28	35	39	37	39	40
Man-made Fiber Jerseys	14	14	15	14	15	19	18	20	23	21	20	21	23	25	21	26	29	27	28	31
Cotton Jerseys	15	19	20	18	19	21	19	20	21	18	18	19	21	24	23	30	31	27	27	30
Non-Cotton T-shirts	8	9	9	7	9	12	12	15	17	16	16	16	16	15	13	15	17	16	17	19
Women’s Synthetic Trousers & Shorts	1	2	2	2	3	3	4	5	6	6	6	6	7	8	8	11	11	10	11	12
Women’s Cotton Trousers & Shorts	4	7	5	4	5	7	8	8	7	6	6	6	7	7	8	11	11	8	8	8
Cotton Stockings & Socks	0	3	4	4	4	4	4	5	5	5	5	5	5	6	5	6	7	7	7	7
Men’s Cotton Shirts	5	5	6	5	6	6	6	6	6	5	5	5	5	6	4	5	6	6	6	6
Cotton Babywear	4	4	5	4	4	5	5	5	6	5	5	6	6	6	6	7	7	6	6	6
Men’s Cotton Trousers & Shorts	2	4	3	2	3	4	4	5	4	4	4	4	4	4	5	7	7	6	6	6
Men’s Synthetic Trousers & Shorts	2	2	2	2	2	3	3	3	3	3	3	3	3	4	4	5	5	5	5	6
Wool Jerseys	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4	5	5	5	5
Man-made Fiber Special Garments	1	2	2	2	2	2	2	2	3	3	3	3	3	4	3	4	5	5	5	5
Women’s Synthetic Dresses	1	1	2	2	2	3	4	4	5	5	4	5	5	5	4	5	6	5	5	5
Synthetic Stockings & Socks	0	2	3	2	3	3	3	4	4	4	4	4	4	4	4	5	5	5	5	5

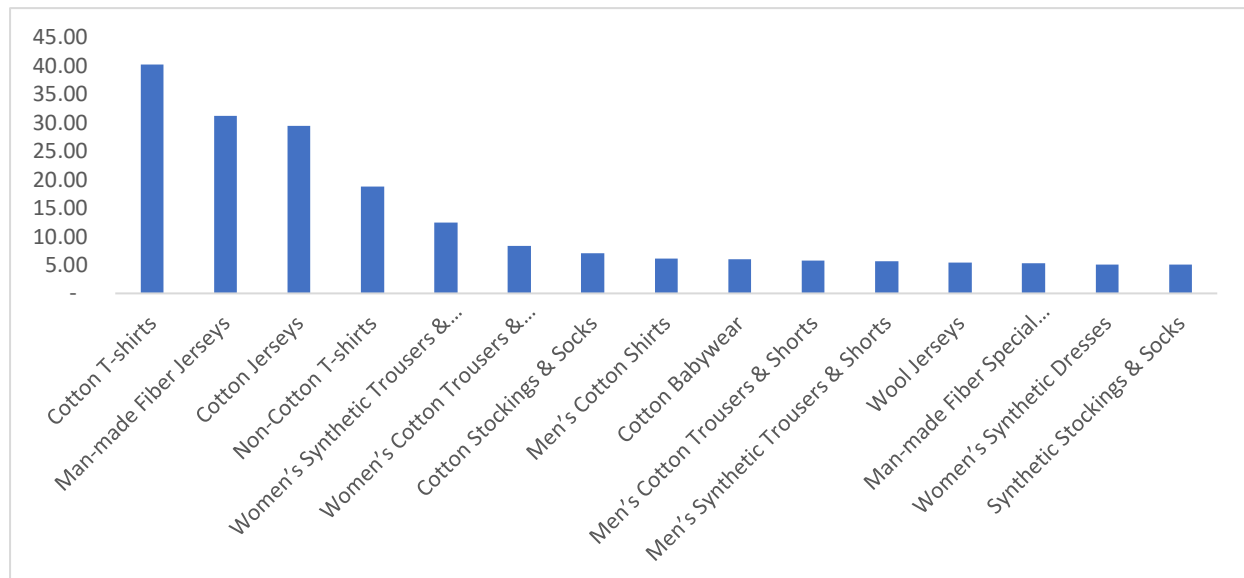
Cotton T-shirts (HS 610910) remain the single largest knit garment product in world trade. Exports increased from approximately US\$23.3 billion in 2006 to US\$40.2 billion in 2025, representing almost 14% of all HS 61 exports. Their share nevertheless declined from about 16.1% in 2006 to 13.9% in 2025, illustrating a recurring theme: cotton products can continue to expand substantially in absolute terms while losing relative position as competing products grow faster.

The clearest comparison is between Cotton Jerseys and Man-made Fiber Jerseys. In 2006, Cotton Jerseys were larger, with exports of approximately US\$15.0 billion compared with US\$13.7 billion for Man-made Fiber Jerseys.

By 2025, the ranking had reversed: Man-made Fiber Jerseys reached approximately US\$31.2 billion, compared with US\$29.5 billion for Cotton Jerseys.

The standout structural gainer is Women’s Synthetic Trousers & Shorts (HS 610463). Exports increased from only about US\$1.5 billion in 2006 to US\$12.5 billion in 2025, moving the product from around 21st position to fifth and raising its share from approximately 1.0% to 4.3%. Men’s Synthetic Trousers & Shorts followed a similar trajectory on a smaller scale, reaching approximately US\$5.7 billion in 2025.

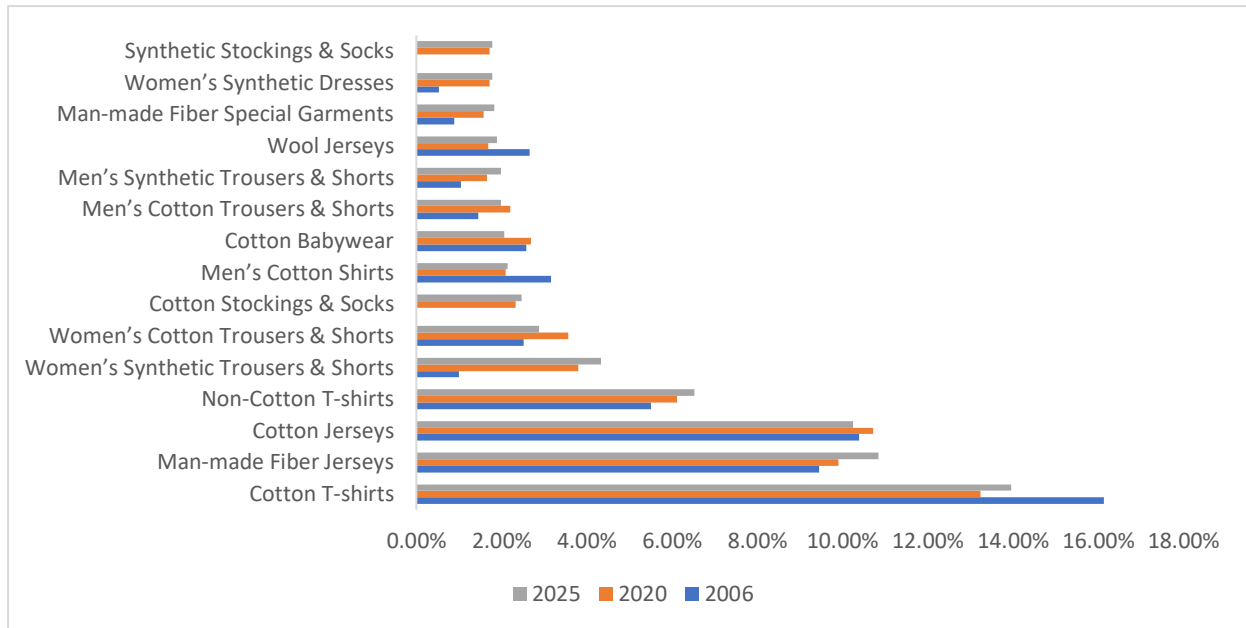
Table 18-1: Major Export Products in Knit Garments at the Six-Digit Level in 2025 (US\$ billion)



The 2025 ranking confirms that cotton remains deeply embedded at the top of the knit garment market. Cotton T-shirts rank first and Cotton Jerseys third, while Women’s Cotton Trousers & Shorts, Cotton Stockings & Socks, Men’s Cotton Shirts, Cotton Babywear, and Men’s Cotton Trousers & Shorts also remain among the major global product lines.

At the same time, the changing competitive structure is unmistakable. Man-made Fiber Jerseys now rank second, Non-Cotton T-shirts fourth, and Women’s Synthetic Trousers & Shorts fifth. The shift is therefore not a uniform movement away from cotton. Rather, cotton continues to dominate several of the largest individual markets while man-made and synthetic products are gaining importance alongside them.

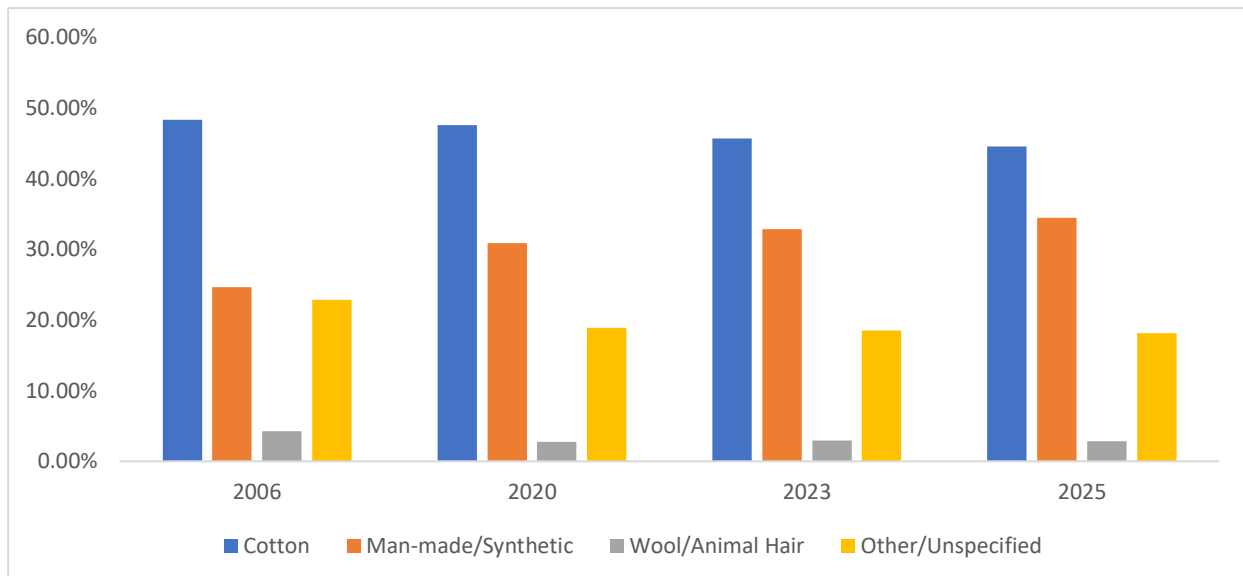
Table 18-2: Changing Shares of Leading Knit Garment Products at the Six-Digit Level



Market-share changes provide some of the clearest evidence of this underlying transformation. Cotton T-shirts and Cotton Jerseys remain enormous markets, but both have lost relative weight. In contrast, Women's Synthetic Trousers & Shorts, Men's Synthetic Trousers & Shorts, Man-made Fiber Special Garments, and Synthetic Stockings & Socks have gained share. Non-Cotton T-shirts have also strengthened substantially, increasing from around US\$8.0 billion in 2006 to approximately US\$18.8 billion in 2025.

The conclusion is therefore more nuanced than a simple displacement of cotton. The data do not show cotton disappearing from knit apparel; cotton continues to dominate several of the largest product markets. What they show is that the fastest structural expansion is increasingly occurring in competing fiber categories.

Table 18-3: Fiber Group Shares in Knit Garments



At the broader fiber-group level, cotton remains the largest component of HS 61. Cotton-based exports increased from approximately US\$69.9 billion in 2006 to US\$128.3 billion in 2025, but their share declined from 48.31% to 44.54%. Man-made and synthetic fiber products grew much faster, increasing from approximately US\$35.6 billion to US\$99.2 billion and raising their share from 24.63% to 34.44%.

The difference in growth rates is substantial. Cotton-based knit garment exports recorded a CAGR of approximately 3.25% between 2006 and 2025, compared with 5.54% for man-made and synthetic products. Between 2023 and 2025, cotton-based exports increased by approximately 5.2%, while man-made and synthetic products grew by more than 13%. Cotton's challenge is therefore not absolute contraction, but relative competitiveness: cotton exports have almost doubled in value, but competing fiber categories have expanded considerably faster.

Table 18-4: Fiber Mix of Knit Garments (US\$ billion)

Fiber	Value 2006	Share 2006	Value 2020	Share 2020	Value 2025	Share 2025	CAGR 2006– 2025
Cotton	69.913	48.31%	101.060	47.55%	128.315	44.54%	3.25%
Man-made/Synthetic	35.642	24.63%	65.579	30.85%	99.207	34.44%	5.54%
Wool/Animal Hair	6.101	4.22%	5.762	2.71%	8.194	2.84%	1.56%
Other/Unspecified	33.072	22.85%	40.147	18.89%	52.350	18.17%	2.45%

The long-term fiber mix summarizes the shift clearly. Cotton's share declined from 48.31% in 2006 to 44.54% in 2025, while the share of man-made and synthetic fibers increased from 24.63% to 34.44%. Wool and animal hair declined from 4.22% to 2.84%, while other or unspecified fibers fell from 22.85% to 18.17%. In value terms,

however, all four broad groups remained significant, confirming that the principal change has been one of relative growth rather than wholesale contraction.

Within cotton, the market remains heavily anchored by its two largest products. Cotton T-shirts generated approximately US\$40.2 billion in exports in 2025 and Cotton Jerseys another US\$29.5 billion; together, they represented more than half of identified cotton-based HS 61 export value. At the same time, several competing products are expanding rapidly: between 2023 and 2025, Women's Synthetic Trousers & Shorts grew by approximately 29%, Men's Synthetic Trousers & Shorts by 22%, Non-Cotton T-shirts by 17%, and Man-made Fiber Jerseys by 15%.

The six-digit analysis therefore changes the interpretation of the knit garment market. At the four-digit level, the product structure appears relatively stable. At the six-digit level, a significant competitive rebalancing between fiber-based products becomes visible. Cotton remains the largest fiber group and dominates several of the world's biggest knit garment products, but man-made and synthetic categories are steadily capturing a larger share of growth.

Cotton remains large; the competitive question is whether it can grow as fast as the garment market around it.

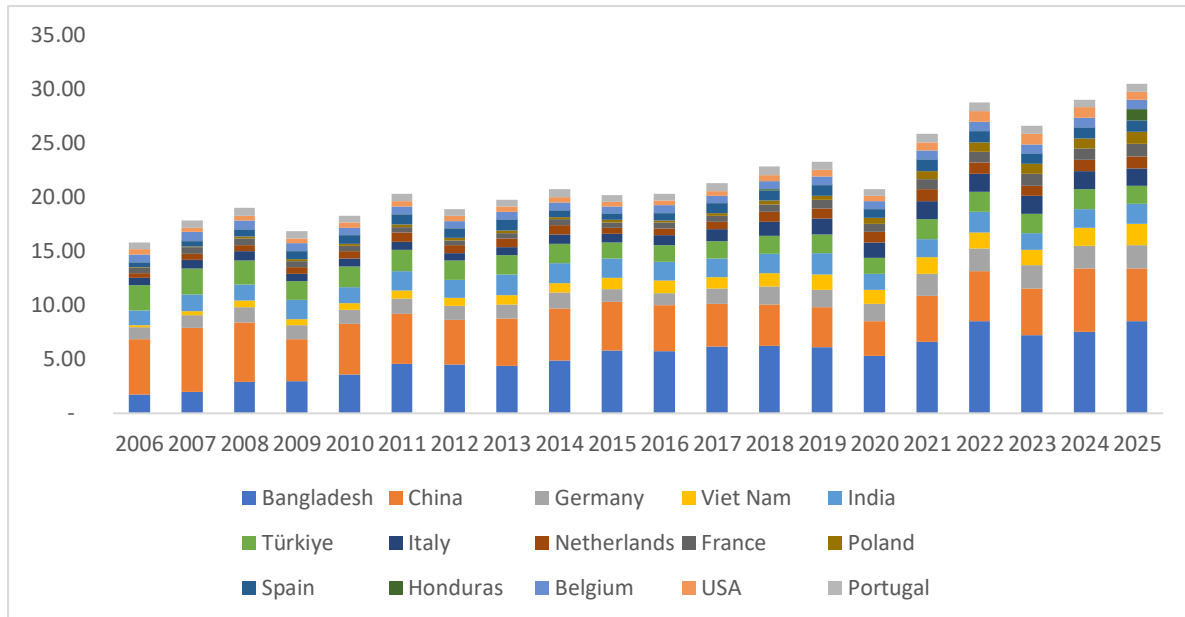
Leading Exporting and Importing Countries for Major Knit Garment Products at the Six-Digit Level

The six-digit analysis shows that fiber competition is closely linked to changes in sourcing geography and market demand. The following sections therefore examine the leading exporters and importers of the major HS 61 product lines, beginning with cotton-based products and identifying where competitive strength and demand are shifting.

Cotton T-shirts: The Center of Gravity Shifts from China to Bangladesh

Cotton T-shirts (HS 610910) are the largest individual six-digit product in global knit garment trade. World exports increased from approximately US\$23.3 billion in 2006 to a record US\$40.2 billion in 2025, an increase of more than 72%. Growth accelerated after 2020, although the pace moderated from more than 30% during 2020–2023 to 9.5% between 2023 and 2025. At the top of the market, concentration changed remarkably little: the three largest exporters accounted for approximately 39.6% of world exports in 2006 and 38.7% in 2025. Beneath this stability, however, the competitive hierarchy was fundamentally reordered.

Table 19: Leading Exporters of Cotton T-shirts (US\$ billion)

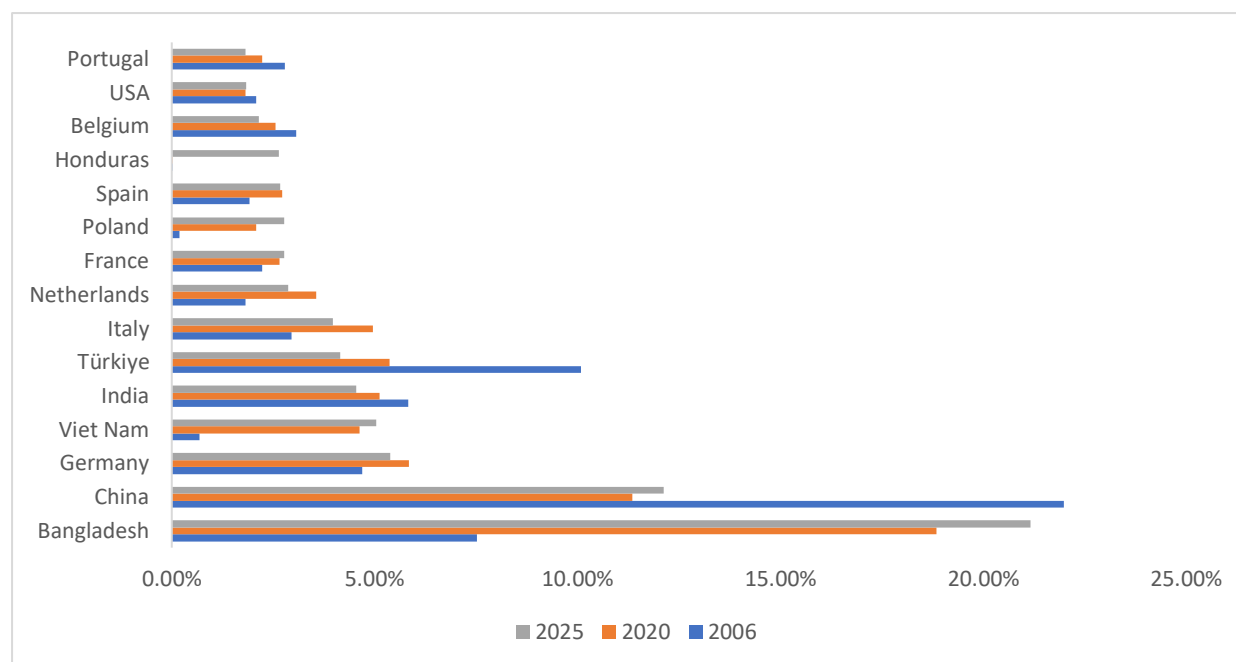


The defining transformation is the reversal between Bangladesh and China. Bangladesh increased exports from approximately US\$1.8 billion in 2006 to US\$8.5 billion in 2025, raising its share from 7.5% to 21.2% and moving from third position to first. Bangladesh alone generated approximately 40% of the entire net increase in world Cotton T-shirt exports over the period. China moved in the opposite direction: its share fell from almost 22% in 2006 to 12.1% in 2025, while export value was slightly below its 2006 level.

Viet Nam also emerged as a major competitor, rising from 27th position and exports of only about US\$160 million in 2006 to fourth position and more than US\$2.0 billion in 2025. Its share increased from less than 1% to around 5%. Germany moved from fifth to third position and broadly maintained its competitive weight, while Poland advanced from 47th to tenth position and increased its share from 0.2% to 2.8%. The Netherlands and Spain also strengthened.

Türkiye experienced one of the sharpest structural declines, falling from second to sixth position as exports declined from approximately US\$2.35 billion to US\$1.67 billion and its share dropped from above 10% to 4.2%.

Table 19-1: Changing Shares of Leading Cotton T-shirt Exporters



The market-share comparison captures the redistribution particularly clearly. Bangladesh gained almost 14 percentage points of global share while China lost nearly 10. Viet Nam also strengthened substantially, while Poland, the Netherlands, and Spain gained ground. Hong Kong, China, Belgium, Portugal, and several other traditional exporters moved in the opposite direction.

Growth contribution makes Bangladesh's rise even more striking. Bangladesh generated 40.1% of net global export growth between 2006 and 2025, Viet Nam approximately 11.1%, while Germany and Poland each contributed slightly more than 6%. China made a small negative contribution because its 2025 exports remained below their 2006 level, while Türkiye's contribution was even more negative. Cotton T-shirts therefore provide a striking example of a market in which concentration at the very top changed little even as competitive leadership was transformed.

The redistribution is continuing. Between 2023 and 2025, Viet Nam's exports increased by approximately 44.6%, although its 2025 value is based on mirror data and should be interpreted with appropriate caution. Poland grew by 24.6%, the Netherlands by more than 22%, Bangladesh by 17.5%, India by around 17%, and Spain by 16.9%. China, Türkiye, Belgium, and the USA moved in the opposite direction, while Pakistan and the Czech Republic—outside the fifteen leading exporters in 2025—each expanded by more than 40%.

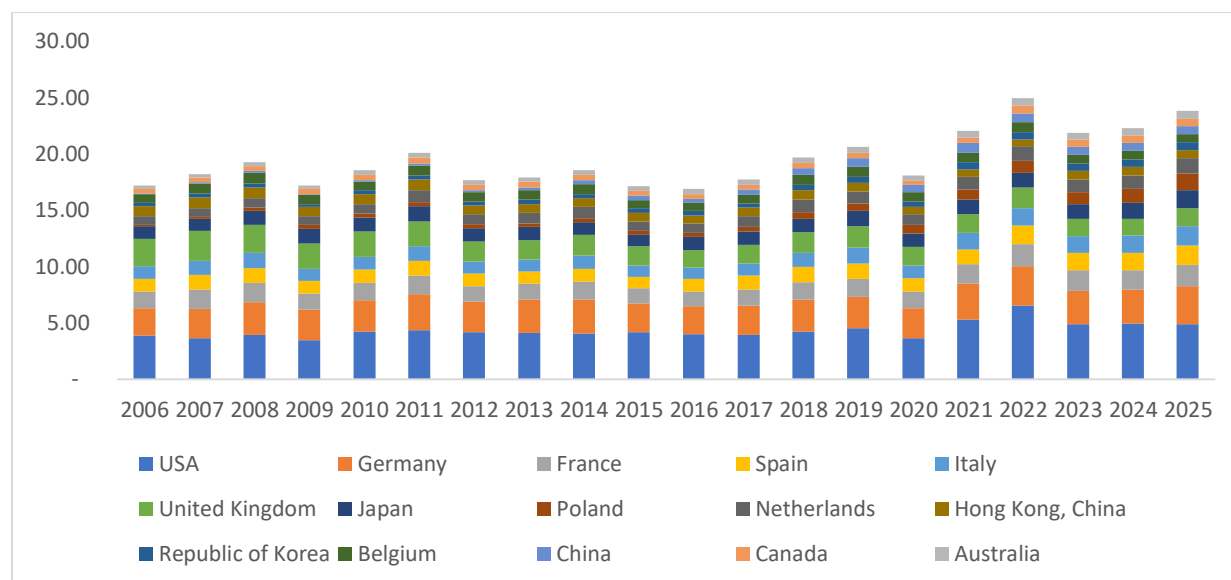
The center of gravity in Cotton T-shirt exports has therefore shifted decisively. Bangladesh has replaced China as the leading supplier, Viet Nam has emerged as a major competitor, and several other exporters have strengthened even though overall concentration among the three largest suppliers remains broadly unchanged.

Cotton T-shirts: Demand Spreads Far Beyond the Traditional Markets

The import side of Cotton T-shirts (HS 610910) shows much stronger geographical diversification than the export side. The three largest import markets accounted for approximately 40.6% of world imports in 2006 but only

28.8% in 2025, while the share of the five largest fell from 52.8% to 38.5%. The countries that ranked among the fifteen leading import markets in 2025 collectively accounted for 81.9% of world imports in 2006, compared with 67.4% in 2025, showing how strongly demand has expanded beyond the markets that lead today.

Table 20: Leading Importers of Cotton T-shirts (US\$ billion)

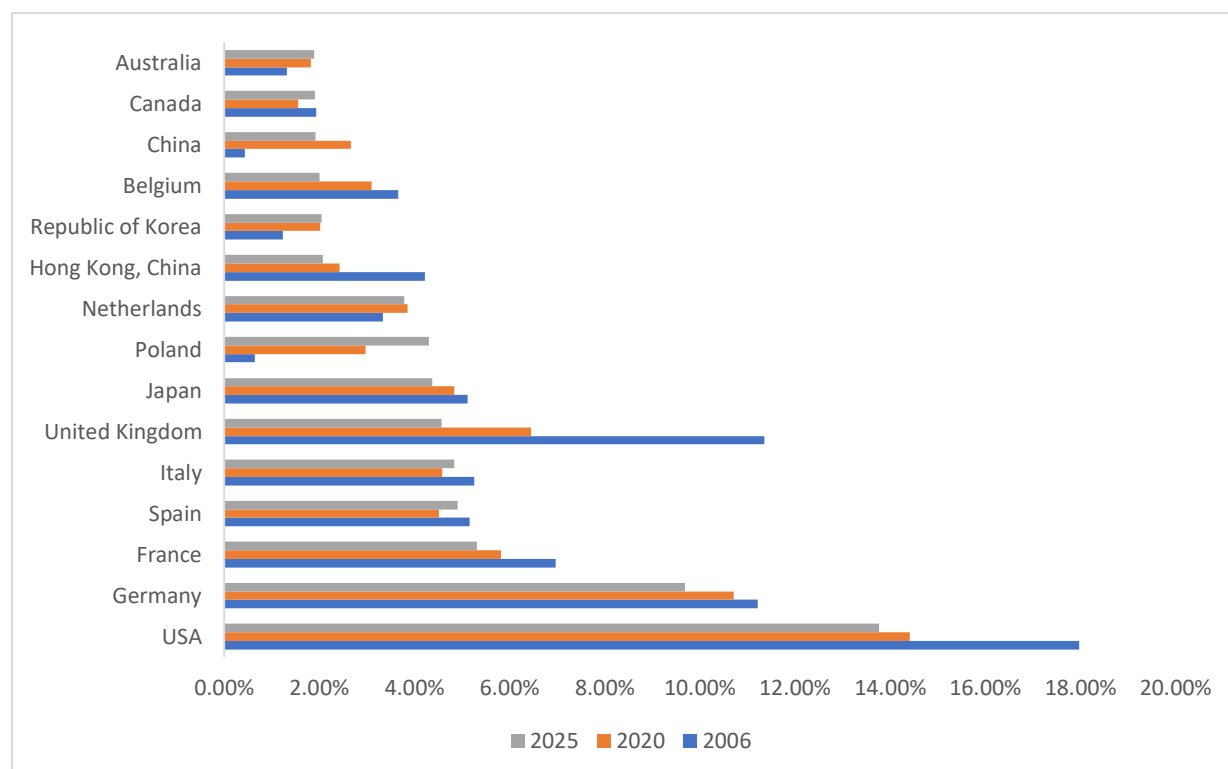


The USA remains the largest market, but its dominance has weakened substantially. Its share declined from approximately 18.0% in 2006 to 13.8% in 2025, while demand was essentially flat between 2023 and 2025. Germany strengthened its relative position, moving from third to second place. Although its share declined modestly from 11.2% to 9.7%, imports increased by approximately 14.8% between 2023 and 2025. France moved from fourth to third position, but its share declined from around 7.0% to 5.3%.

Spain presents a stronger growth story, moving from sixth to fourth position and recording a further 14.8% increase in imports between 2023 and 2025. Italy also strengthened recently, while Japan's imports reaccelerated by more than 20%. In contrast, the United Kingdom experienced the largest structural decline among the major markets. It was the world's second-largest Cotton T-shirt importer in 2006, accounting for around 11.4% of demand, but by 2025 its imports were below their 2006 value, its share had fallen to only 4.6%, and its ranking had dropped to sixth.

Poland advanced from 23rd position and around 0.6% of world imports in 2006 to eighth position and 4.3% in 2025. It also generated around 10% of the entire net increase in global Cotton T-shirt imports over the period. The Netherlands and the Republic of Korea strengthened structurally, while Australia recorded a consistent long-term gain. China rose considerably as an import market over the nineteen-year period but has recently lost momentum.

Table 20-1: Changing Shares of Leading Cotton T-shirt Importers



The market-share comparison confirms a fundamental redistribution of demand. The USA, Germany, France, and particularly the United Kingdom accounted for smaller shares of the world market in 2025 than in 2006, while Poland, the Netherlands, the Republic of Korea, China, and Australia strengthened.

The contrast with export supply is important. In 2025, the fifteen leading exporters accounted for approximately 75.9% of world exports, compared with only 67.4% for the fifteen leading import markets. Export supply was therefore more concentrated than destination demand.

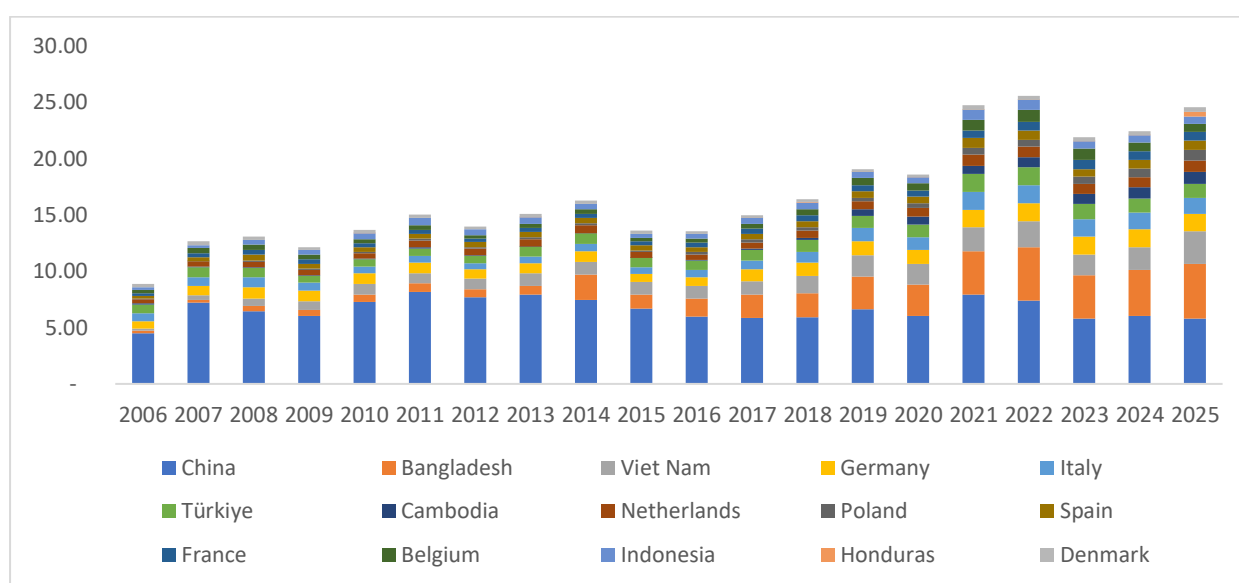
The contribution-to-growth analysis makes the diversification even clearer. Poland generated approximately 10.1% of net global import growth, more than any other market among the fifteen leaders in 2025. The current three largest markets—the USA, Germany, and France—together generated only about 17% of total growth, while the fifteen leading import markets in 2025 collectively accounted for only around 48%. More than half of all additional Cotton T-shirt demand therefore came from markets outside this group.

Recent momentum reinforces the broadening. Between 2023 and 2025, Poland's imports increased by approximately 44%, Japan's by more than 20%, the Netherlands' by around 20%, Australia's by 16.6%, Germany's and Spain's by about 14.8%, the Republic of Korea's by around 12%, and Italy's by 11.6%. By contrast, Hong Kong, China, Belgium, and China contracted, while US demand was essentially flat. Cotton T-shirt demand is therefore becoming increasingly multi-destination, with future growth less dependent on a handful of traditional importing economies.

Cotton Jerseys: China Remains No. 1, but the Competitive Gap Has Narrowed Sharply

Cotton Jerseys (HS 611020) remain one of the largest individual product markets within knit garments. World exports increased from approximately US\$15.0 billion in 2006 to US\$29.5 billion in 2025, almost doubling over nineteen years, although the 2025 value remained about 4.7% below the historical peak of US\$31.0 billion reached in 2022. The competitive structure changed considerably: the three largest exporters accounted for approximately 53.1% of world exports in 2006 but only 45.9% in 2025, while the five largest declined from 62.0% to 56.1%. The market has therefore become less dependent on its very largest suppliers.

Table 21: Leading Exporters of Cotton Jerseys (US\$ billion)

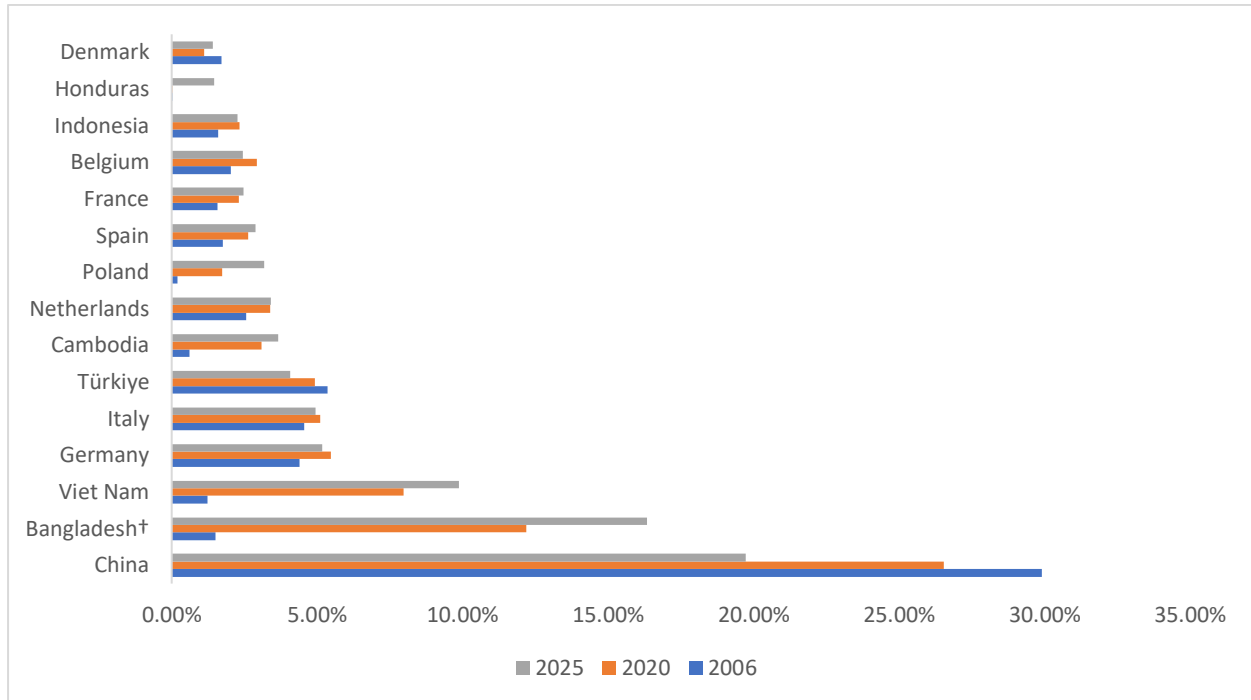


China remains the world's largest exporter, but its former dominance has diminished substantially. Chinese exports increased from approximately US\$4.49 billion in 2006 to US\$5.82 billion in 2025, while its share fell from almost 30% to below 20%. Bangladesh recorded the most dramatic structural gain, advancing from 14th position and only 1.5% of world exports in 2006 to second place and 16.3% in 2025. Exports increased from approximately US\$225 million to US\$4.82 billion, and Bangladesh generated about 31.8% of the entire net increase in global Cotton Jersey exports. By 2025, the gap between China and Bangladesh had narrowed to only about US\$1 billion, compared with more than US\$4 billion in 2006.

Viet Nam represents the other major transformation, rising from 18th to third position as its share increased from approximately 1.2% to almost 9.9%. Exports rose from about US\$183 million to US\$2.91 billion, accounting for approximately 18.9% of net global growth. Together, Bangladesh and Viet Nam increased their combined share from less than 3% in 2006 to more than 26% in 2025. Cambodia also advanced sharply, from 29th to seventh position and from 0.6% to 3.7% of world exports, while the Netherlands and Spain strengthened. Poland rose from 47th to ninth position, with reported exports increasing from only US\$31 million to approximately US\$936 million.

Several established exporters moved in the opposite direction. Türkiye lost relative position despite higher absolute exports, while Italy, France, and Belgium weakened more recently. The most dramatic long-term decline occurred in Hong Kong, China, which was the world's second-largest Cotton Jersey exporter in 2006 with approximately US\$2.68 billion in exports but had fallen to 16th position and only US\$410 million by 2025.

Table 21-1: Changing Shares of Leading Cotton Jerseys Exporters



The market-share comparison shows how fundamentally the leadership structure has changed. China now accounts for less than one-fifth of the market rather than almost one-third, while Bangladesh has risen from a marginal position to more than 16% and Viet Nam to almost 10%. Cambodia, Poland, the Netherlands, and Spain have also strengthened.

Growth contribution reinforces the scale of this redistribution. Bangladesh generated 31.8% of net global growth, Viet Nam 18.9%, and China only 9.2%, followed by Cambodia at about 6.8%, Poland at 6.3%, and Germany at approximately 6.0%. The current three largest exporters—China, Bangladesh, and Viet Nam—together generated almost 60% of net growth.

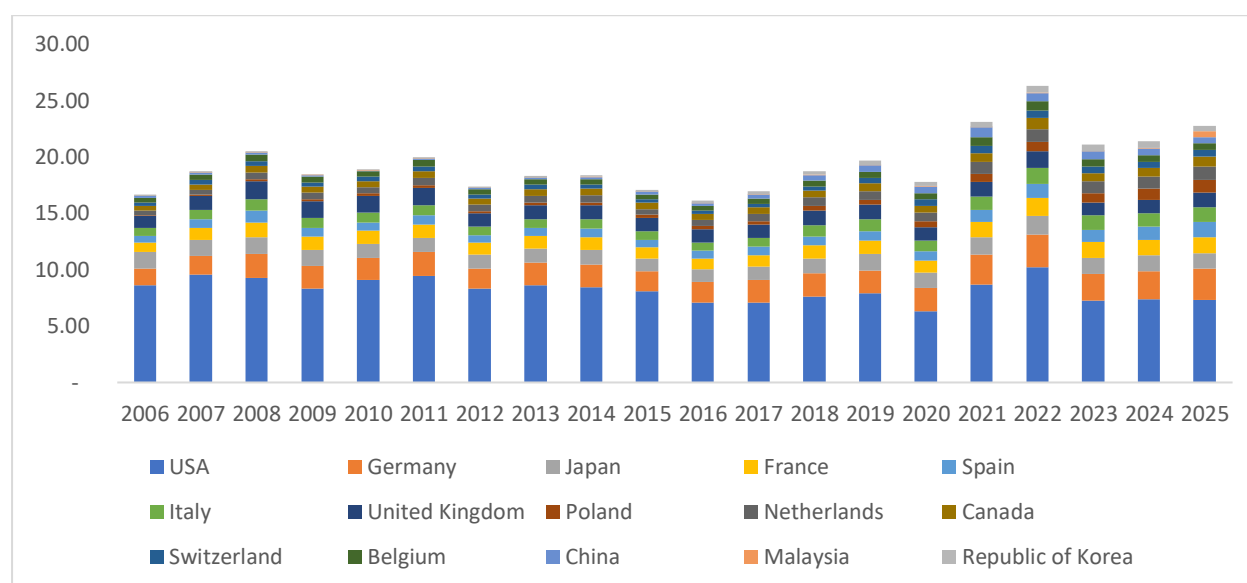
Recent performance indicates that the shift is continuing. Between 2023 and 2025, Poland's exports increased by 45.3%, Cambodia's by 23.8%, Spain's by 22.8%, Denmark's by 22.6%, and the Netherlands' by 14.3%. Bangladesh and Viet Nam also recorded strong increases—25.4% and approximately 56%, respectively—although their 2025 observations are based on mirror data and the precise magnitude of the latest acceleration should therefore be treated cautiously. Türkiye declined by approximately 11.7%, Italy by 7.5%, France by 12.3%, and Belgium by almost 28%.

Taken together, the evidence shows a major reordering of Cotton Jersey export supply. China remains the largest exporter, but Bangladesh has emerged as a close second and Viet Nam as a major third supplier. Competitive strength has not simply dispersed; it has shifted toward a new and increasingly powerful group of exporters.

Cotton Jerseys: Demand Growth Moves Beyond the Traditional Core

The import side of Cotton Jerseys (HS 611020) shows one of the strongest geographical diversification trends in the knit garment analysis. The three largest markets accounted for approximately 57.1% of world imports in 2006 but only 39.2% in 2025, while the five largest declined from 69.3% to 48.7%. The countries that ranked among the fifteen leading import markets in 2025 collectively accounted for around 90.0% of world imports in 2006, compared with 77.6% in 2025, showing how strongly demand has expanded beyond the markets that lead today. Demand has strengthened considerably since 2020, although the 2025 level remained approximately 11.1% below the historical peak reached in 2022.

Table 22: Leading Importers of Cotton Jerseys (US\$ billion)

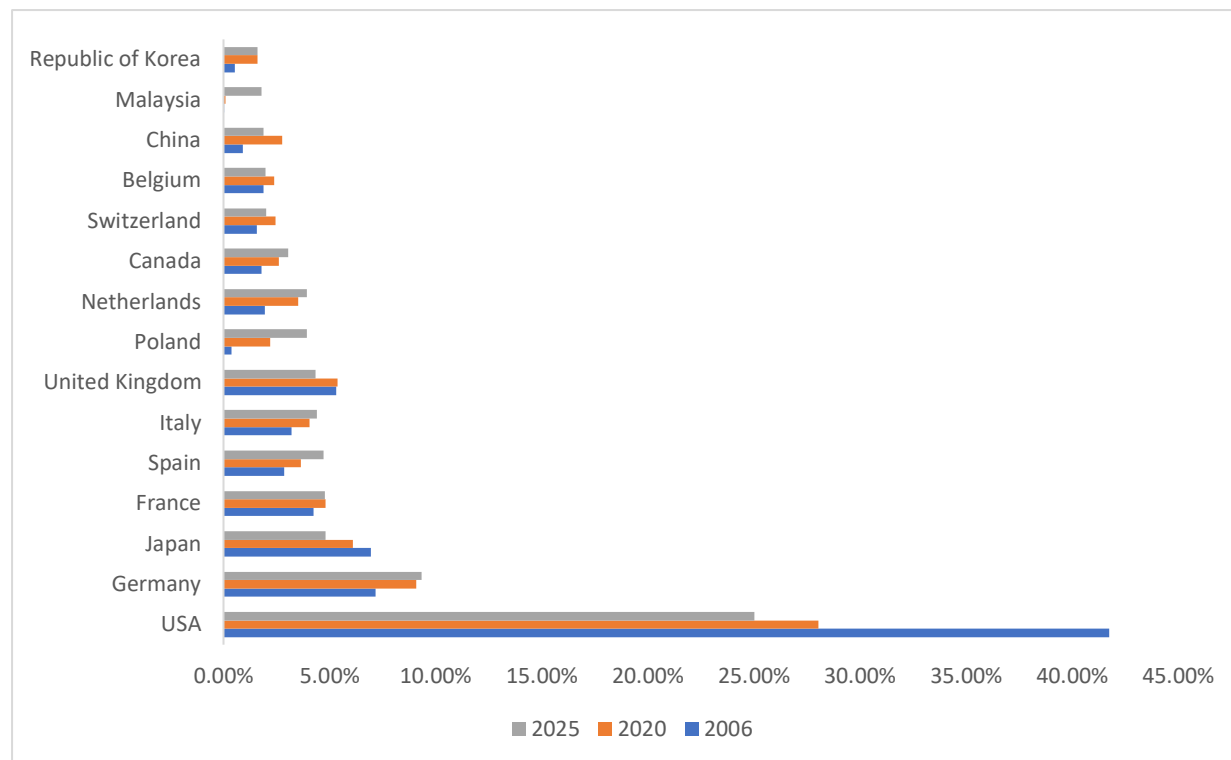


The USA remains by far the largest importing market, but the scale of its relative decline is striking. US imports were lower in 2025 than in 2006, while its global share fell from 41.8% to 25.0%, a decline of almost 17 percentage points. Recent demand has also been largely flat, increasing by only 1.5% between 2023 and 2025. Unlike several other garment categories where the USA lost share primarily because other markets grew faster, Cotton Jerseys experienced both absolute long-term contraction in US imports and a major loss of relative dominance.

Germany moved in the opposite direction, advancing from third to second position and increasing its share from 7.2% to 9.3%. Imports rose another 14.8% between 2023 and 2025, and Germany generated approximately 14.5% of net global import growth over the full period. Japan moved from fourth to third position, but its import value was slightly lower in 2025 than in 2006 and its share declined from 7.0% to 4.8%. Spain recorded a stronger expansion, rising from eighth to fifth position, increasing its share from 2.9% to 4.7%, and growing by 26.3% between 2023 and 2025.

Poland advanced from 27th position and a 0.4% share in 2006 to eighth position and 3.9% in 2025, with imports increasing from US\$77 million to approximately US\$1.15 billion. The Netherlands also strengthened, almost doubling its share from 1.9% to 3.9%, while Canada increased from 1.8% to 3.1%.

Table 22-1: Changing Shares of Leading Cotton Jerseys Importers



The share comparison makes the structural shift unusually clear. The USA alone accounted for more than two-fifths of global Cotton Jersey imports in 2006; by 2025, it represented only one-quarter. Japan and the United Kingdom also lost relative weight, while Germany, Spain, Poland, the Netherlands, Canada, China, and the Republic of Korea strengthened over the longer term.

The contrast with export supply is also significant. In 2025, the fifteen leading Cotton Jersey exporters accounted for approximately 83.3% of world exports, compared with 77.6% for the fifteen leading import markets. The countries that make up today's leading import group had collectively accounted for around 90% of imports in 2006, illustrating how much demand has subsequently expanded beyond them.

Growth contribution provides an even stronger indication of this redistribution. Germany generated approximately 14.5% of net demand growth, Poland 12.4%, Spain 9.1%, and the Netherlands 8.6%. By contrast, the USA made a negative contribution of almost 15%, while Japan also contributed slightly negatively. As a result, the current three largest markets—the USA, Germany, and Japan—collectively generated essentially no positive net growth over the full period. Almost all expansion in global Cotton Jersey demand came from elsewhere.

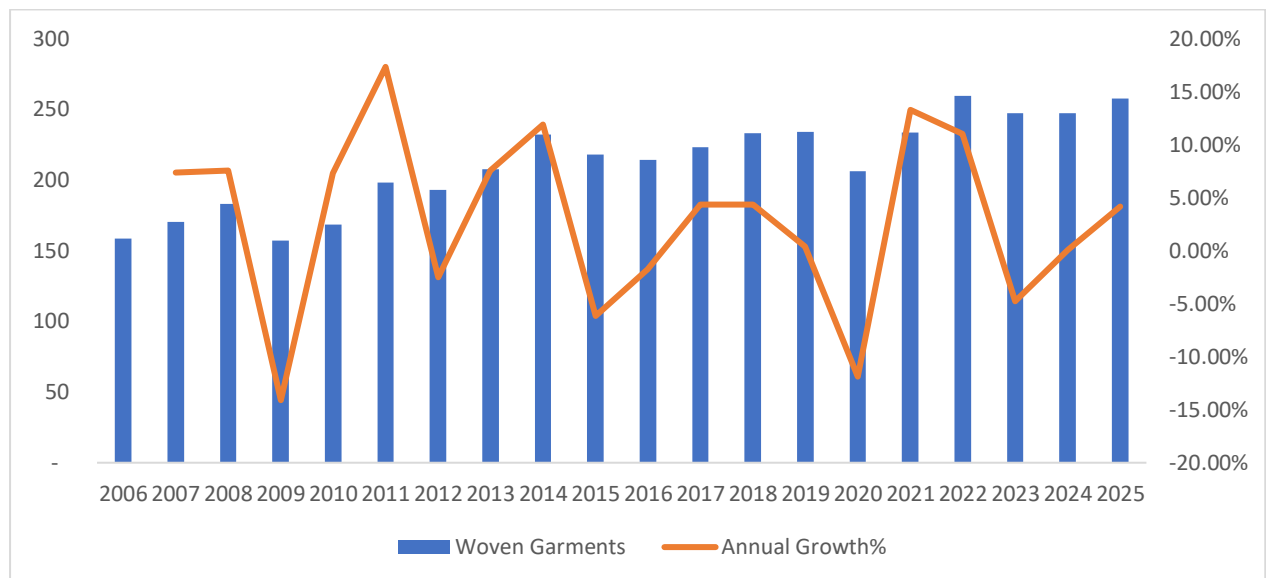
Recent momentum confirms that this diversification is continuing. Between 2023 and 2025, Poland's imports increased by approximately 41%, Spain's by 26.3%, Canada's by 23%, Germany's by 14.8%, and the Netherlands' by 10.9%. The United Kingdom also recovered by around 10%, although this did not reverse its longer-term loss of share. China, the Republic of Korea, Belgium, Japan, and Switzerland weakened over the latest period. Cotton Jersey demand has therefore been fundamentally redistributed away from its former dependence on the USA and a small group of traditional markets.

Woven Garments

Stable in Global Textiles, but Overtaken by Knitwear

World exports of woven garments (HS 62) increased from approximately US\$158.5 billion in 2006 to US\$257.7 billion in 2025, an expansion of about 63% and a long-term CAGR of approximately 2.6%. Growth accelerated after 2020, although the pace moderated after 2023. By 2025, exports had recovered to within 0.7% of the historical peak reached in 2022.

Table 23: World Woven Garment Exports (US\$ billion)



The most striking feature of the long-term series is not decline, but stability within the wider textile economy. Woven garments represented approximately 28.3% of world textile exports in 2006 and 28.2% in 2025. Despite major changes in global trade over the intervening period, their share of the textile market therefore remained almost unchanged. Woven garments also generated approximately 28% of the net increase in world textile exports between 2006 and 2025.

The more important structural shift occurred within apparel itself. In 2006, woven garment exports stood at approximately US\$158.5 billion, compared with US\$145.2 billion for knit garments, making woven garments the larger of the two major apparel categories. By 2020, that relationship had reversed as knit garment exports moved ahead. By 2025, knit garment exports had reached approximately US\$289.1 billion—about US\$31.3 billion more than woven garments. As a share of combined knit and woven garment exports, woven garments consequently declined from approximately 52.2% in 2006 to 47.1% in 2025. Woven garments have not contracted; their relative decline within apparel reflects the faster expansion of knitwear.

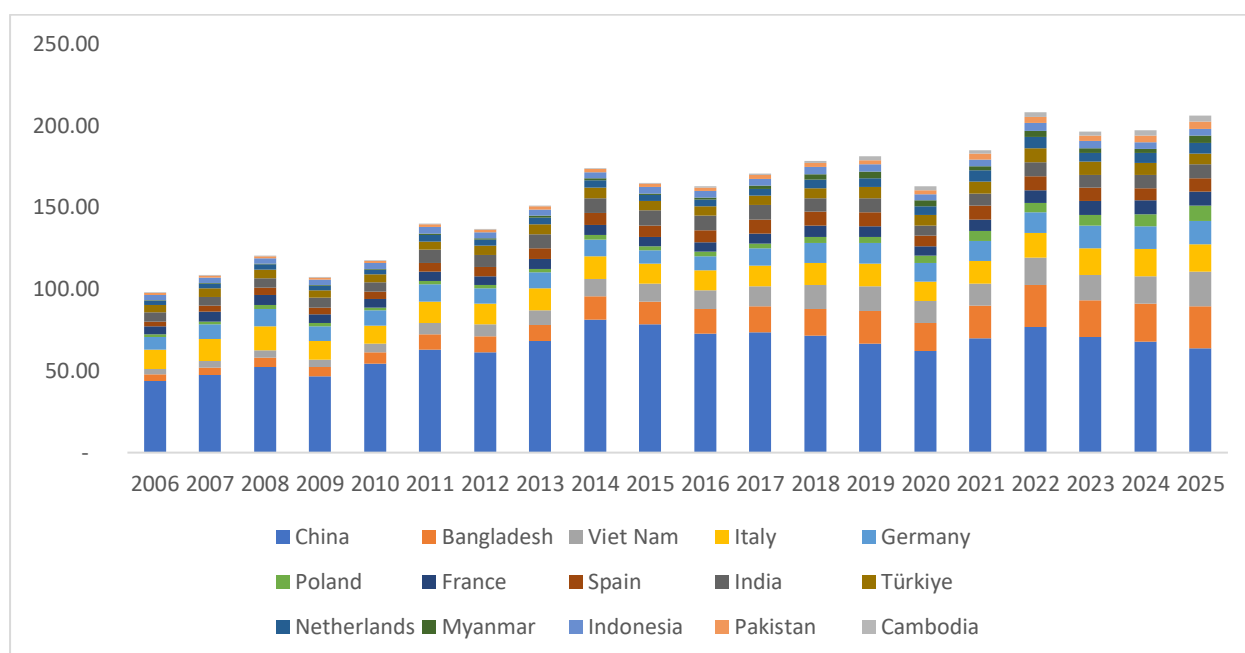
The twenty-year trajectory also demonstrates considerable resilience. The sharpest contraction occurred in 2009, when exports declined by approximately 14.1%, followed by another major fall of almost 11.9% in 2020. Both were followed by strong recoveries. Exports grew by approximately 13.3% in 2021 and 11.1% in 2022, reaching their historical peak. Following the 2023 correction, exports were broadly unchanged in 2024 before increasing by 4.1% in 2025, bringing the market almost completely back to its 2022 record.

Woven garments therefore remain a large, resilient, and expanding component of global textile trade. What has changed is their position within apparel, where knit garments have grown faster and moved decisively ahead. Taken together, knit and woven garments represented almost 60% of world textile exports in 2025, compared with about 54% in 2006, and generated nearly 69% of net global textile export growth over the period.

Woven Garments: Stable Concentration at the Top, but a New Competitive Order

The global woven garment export market has undergone a substantial redistribution of competitive strength. World exports increased from approximately US\$158.5 billion in 2006 to US\$257.7 billion in 2025, an increase of about 63%, and the market now stands only 0.7% below its 2022 historical peak. Concentration among the three largest exporters changed remarkably little, from 43.1% in 2006 to 42.9% in 2025. The stability at the top, however, conceals a major change in the countries occupying the leading positions.

Table 24: Leading Exporters of Woven Garments (US\$ billion)



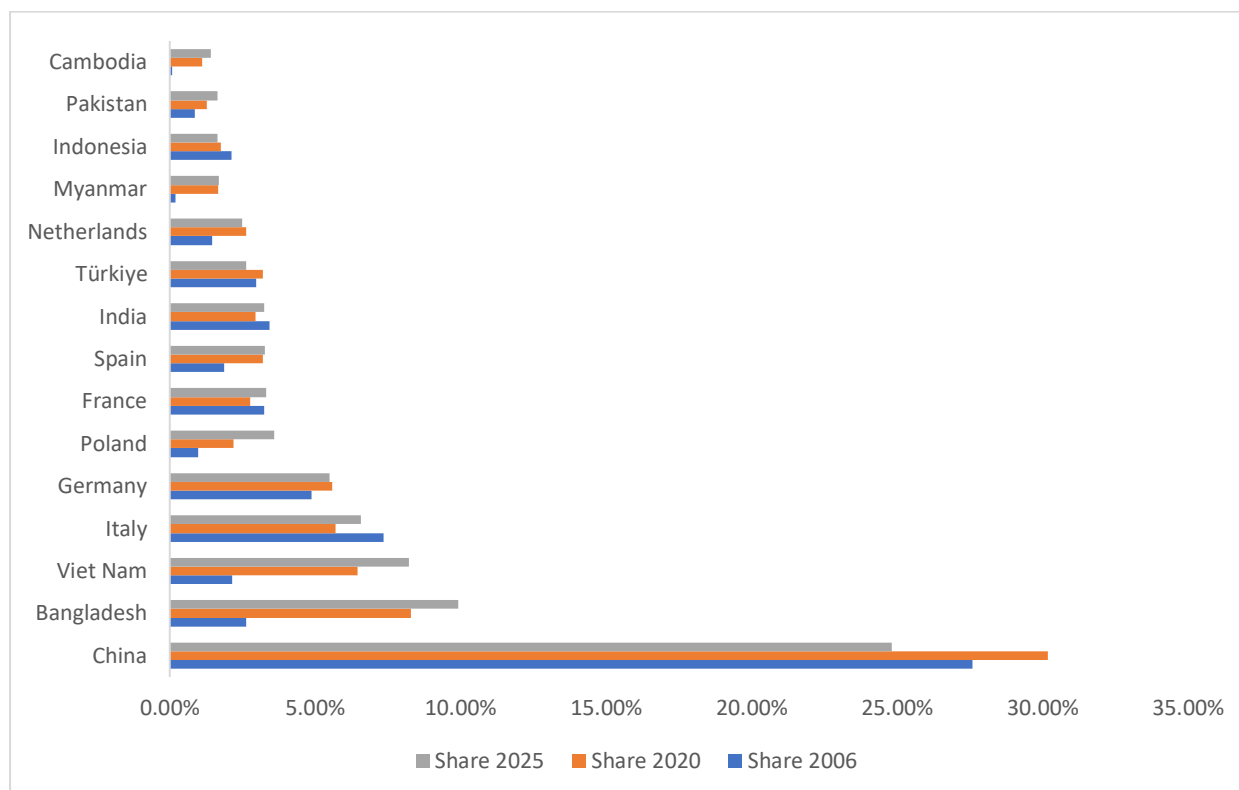
China remains overwhelmingly the largest exporter, but its relative dominance has gradually weakened. Exports increased from approximately US\$43.7 billion in 2006 to US\$64.0 billion in 2025, while its share declined from 27.6% to 24.8%. More recently, exports contracted by almost 9.8% between 2023 and 2025.

The principal structural gains came from Bangladesh and Viet Nam. Bangladesh advanced from eighth position in 2006 to second in 2025, with exports increasing from approximately US\$4.2 billion to US\$25.6 billion and its share rising from 2.6% to almost 10%. Viet Nam moved from 11th to third position, increasing exports from about US\$3.4 billion to US\$21.2 billion and its share from 2.1% to 8.2%. Together, Bangladesh and Viet Nam now account for more than 18% of world woven garment exports, compared with less than 5% in 2006.

Italy remains the largest European exporter, although its share declined from 7.3% to 6.6%, while Germany strengthened modestly from 4.9% to 5.5%. Poland advanced from 22nd position to sixth as reported exports increased from approximately US\$1.56 billion to US\$9.24 billion. Spain and the Netherlands also strengthened

substantially. Pakistan improved from 24th to 14th position, with exports rising from approximately US\$1.35 billion to US\$4.22 billion and its share almost doubling from 0.85% to 1.64%. Cambodia recorded an even more striking ranking change, advancing from 65th to 15th position as exports increased from about US\$146 million to US\$3.64 billion.

Table 24-1: Changing Shares of Leading Woven Garment Exporters



The market-share comparison shows that the competitive hierarchy has changed far more than the stable share of the three largest exporters suggests. China remains dominant, but Bangladesh and Viet Nam have moved decisively into the leading positions, while Poland, the Netherlands, Pakistan, and Cambodia have become increasingly important. At the same time, several former major exporters have declined substantially. Hong Kong, China fell from second position in 2006 to 20th in 2025 as exports declined from approximately US\$12.9 billion to US\$2.6 billion. Mexico fell from ninth to 23rd position, while the United Kingdom declined from 15th to 27th.

Growth contribution makes the new hierarchy especially clear. Bangladesh generated approximately 21.5% of net global growth, China 20.4%, and Viet Nam 17.9%. Together, these three countries accounted for almost 60% of the entire increase in world woven garment exports. Poland contributed another 7.7%, Germany 6.5%, Spain 5.5%, Italy 5.3%, the Netherlands 4.1%, and Pakistan approximately 2.9%. The fifteen countries that ranked as the largest exporters in 2025 collectively generated more than 100% of net world growth because declines among former major suppliers offset part of the gains achieved by today's leaders.

Recent performance indicates that the redistribution is continuing. Between 2023 and 2025, Cambodia's exports increased by more than 52%, Poland's by approximately 43%, Pakistan's by 26%, and the Netherlands' by 15.7%. Bangladesh increased by 13.6%, although its 2025 figure is based on mirror data. Viet Nam and Myanmar

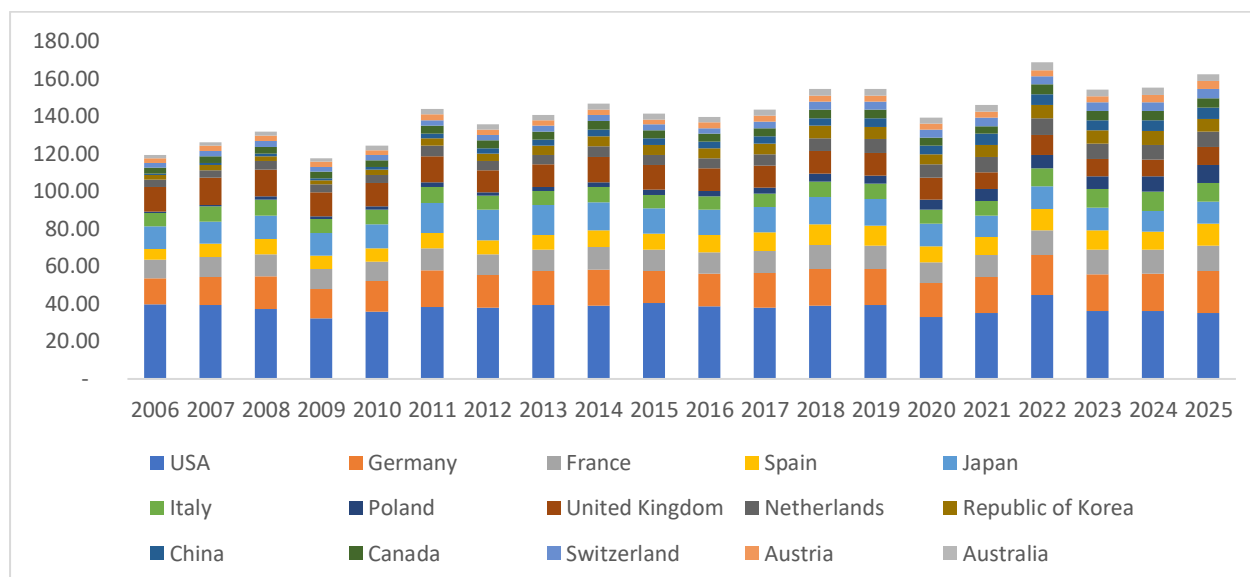
recorded even stronger reported growth of approximately 38% and 50%, respectively, but their 2025 values are also based on mirror data and should therefore be interpreted cautiously. In contrast, Türkiye declined by almost 16%, China by nearly 10%, and France by about 2.5%.

Woven garment exports therefore combine remarkable stability in concentration among the three largest suppliers with a profound redistribution of competitive position. China remains the largest exporter, but Bangladesh and Viet Nam have become formidable competitors, while several other suppliers have strengthened materially.

Woven Garments: Demand Becomes Far More Geographically Dispersed

The import side of woven garments (HS 62) shows a substantial broadening of the global demand base. The three largest markets accounted for approximately 41.8% of world imports in 2006 but only 30.8% in 2025, while the five largest declined from 55.5% to 40.9%. The countries that ranked among the fifteen leading import markets in 2025 collectively accounted for 81.5% of world imports in 2006, compared with 70.5% in 2025, showing how strongly demand has expanded beyond the markets that lead today.

Table 25: Leading Importers of Woven Garments (US\$ billion)

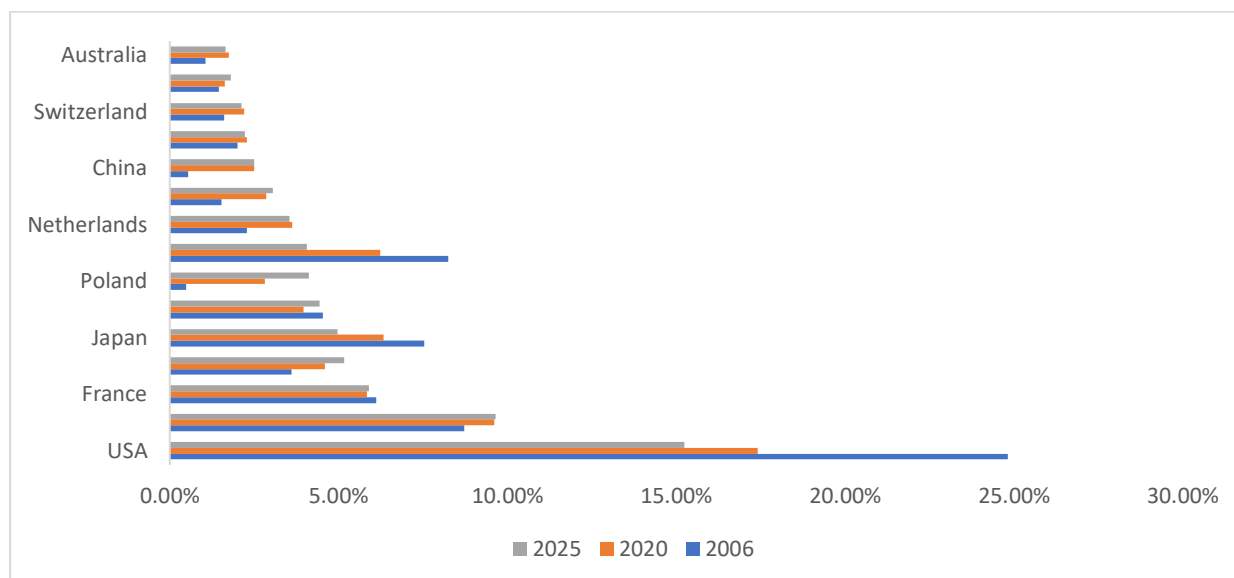


The USA remains the largest market, but its dominance has fallen dramatically. Imports declined from approximately US\$39.7 billion in 2006 to US\$35.1 billion in 2025, while its share fell from 24.8% to 15.2%. Germany followed a very different trajectory, increasing imports from approximately US\$13.9 billion to US\$22.3 billion and raising its share from 8.7% to 9.7%. Its imports also grew by 14.3% between 2023 and 2025, strengthening its position as the second-largest market.

France remained a large and comparatively stable market, while Spain emerged as one of the strongest structural gainers, advancing from eighth to fourth position and increasing its share from 3.6% to 5.2%. Japan moved in the opposite direction: imports were lower in 2025 than in 2006, its share fell from 7.5% to below 5%, and its ranking slipped from fourth to fifth. The United Kingdom experienced an even greater structural decline, falling from third to eighth position as its share declined from 8.3% to 4.1%.

Poland advanced from 29th position and less than 0.5% of world imports in 2006 to seventh position and 4.1% in 2025, with imports increasing from US\$769 million to US\$9.51 billion. The Netherlands and the Republic of Korea also strengthened, while China advanced from 27th to 11th position as an importer and increased its share from 0.5% to 2.5%.

Table 25-1: Changing Shares of Leading Woven Garment Importers



The market-share comparison confirms how significantly the traditional demand structure has weakened. The USA, Japan, the United Kingdom, and Hong Kong, China all lost substantial relative weight, while Germany, Spain, Poland, the Netherlands, the Republic of Korea, and China became more important. Hong Kong, China provides one of the sharpest examples, falling from the sixth-largest import market in 2006 to 18th in 2025 as imports declined from approximately US\$8.25 billion to US\$3.15 billion.

Growth contribution provides even stronger evidence of diversification. Poland generated approximately 12.4% of net global import growth, Germany 11.8%, Spain 8.7%, China 7.0%, the Republic of Korea 6.5%, and the Netherlands 6.4%. By contrast, the USA and the United Kingdom made negative contributions. The current three largest markets—the USA, Germany, and France—generated only about 10.7% of total net growth, while the fifteen leading import markets in 2025 collectively accounted for around 61%. Nearly 39% of all additional woven garment imports therefore came from markets outside this group.

Recent performance reinforces this broadening. Between 2023 and 2025, Poland's imports increased by 38.2%, Austria's by almost 29%, Germany's by 14.3%, Spain's by 12.4%, and China's by 9.5%. By contrast, the USA declined by 3.4%, Japan by 2.5%, the Republic of Korea by 1.4%, and Hong Kong, China by 7.7%. Outside the fifteen leading markets, the Czech Republic and Türkiye also expanded strongly.

The structural pattern is therefore increasingly clear: woven garment export supply remains concentrated within a relatively narrow group of countries, while demand is distributed across a much broader set of destinations. The USA remains the largest market, but its former dominance has weakened considerably as Germany, Spain, Poland, China, the Republic of Korea, and the Netherlands have gained importance.

The Product Structure of Woven Garments

Stable at the Top, Rebalanced Toward Outerwear

The four-digit analysis shows that world woven garment trade remains highly concentrated in a relatively small number of product categories, but the composition within that structure has changed meaningfully. The 17 HS four-digit groups covered in the dataset increased from approximately US\$158.2 billion in 2006 to US\$256.8 billion in 2025, with the market returning to within 0.6% of its 2022 peak.

Table 26: Major Export Products in Woven Garments (US\$ billion)

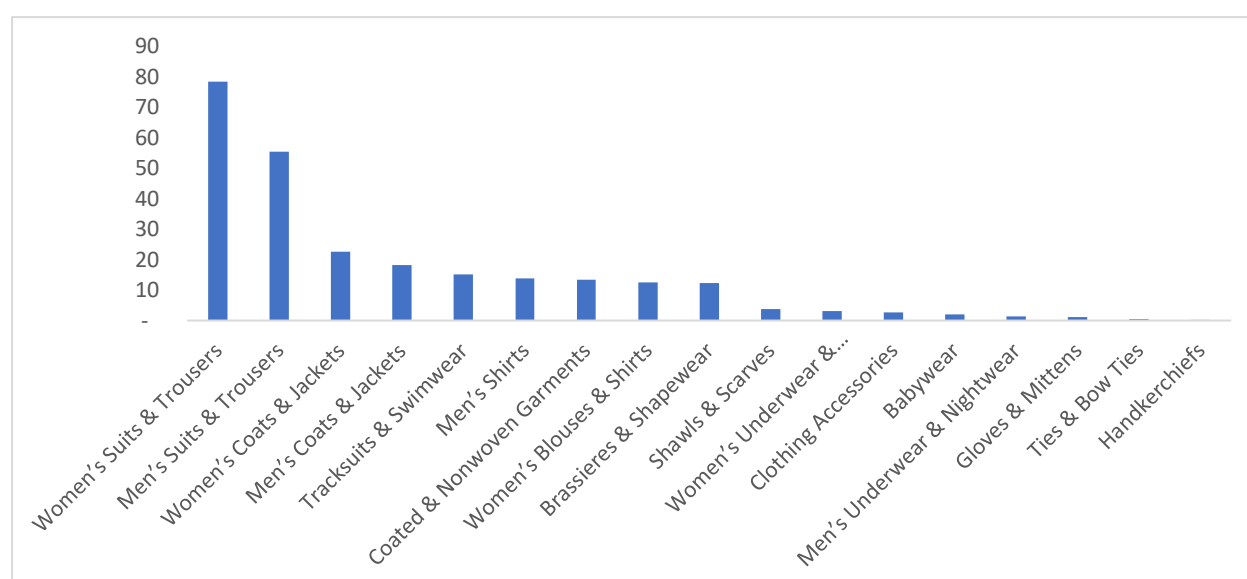
Products	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Women's Suits & Trousers	50	53	54	46	48	54	53	56	66	63	62	64	66	68	58	72	77	76	7	7
Men's Suits & Trousers	36	38	42	35	37	44	43	45	50	48	48	49	51	52	41	47	55	52	5	5
Women's Coats & Jackets	8	10	12	10	11	14	13	15	18	16	16	19	20	19	16	21	23	21	2	2
Men's Coats & Jackets	7	8	9	8	9	12	11	13	14	13	13	15	16	17	14	17	19	18	1	1
Tracksuits & Swimwear	9	9	10	8	9	10	10	11	12	12	12	12	13	14	12	14	16	15	1	1
Men's Shirts Coated & Nonwoven	12	13	13	11	12	15	15	15	16	15	15	15	15	14	10	10	14	14	1	1
Garments	6	7	8	8	9	11	11	12	12	10	9	10	10	10	22	13	13	12	1	1
Women's Blouses & Shirts	9	10	11	10	11	12	12	13	14	13	13	13	14	13	10	11	12	12	1	1
Brassieres & Shapewear	9	9	11	8	9	10	10	11	12	11	11	12	12	12	10	13	13	12	1	1
Shawls & Scarves	2	2	3	3	4	4	5	5	5	5	5	4	4	4	3	3	4	4	4	4
Women's Underwear & Nightwear	2	2	3	2	2	2	2	2	3	3	2	2	2	2	2	3	3	3	3	3
Clothing Accessories	2	2	2	2	2	2	3	3	3	3	3	3	3	3	2	3	3	3	3	3
Babywear	2	3	2	2	2	2	2	2	3	2	2	2	2	2	2	2	2	2	2	2
Men's Underwear & Nightwear	2	2	2	1	1	2	1	1	2	1	1	1	1	1	1	1	2	1	1	1
Gloves & Mittens	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
Ties & Bow Ties	1	1	1	1	1	1	1	1	1	1	1	1	1	1	0.3	0.4	0.5	0.5	0	0
Handkerchiefs	0.2	0.2	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.2	0.2	0.2	0.2	0.2	0.2	0.1	0.1	0.2	0	0

The product hierarchy has remained remarkably stable at the top. Women's Suits & Trousers and Men's Suits & Trousers remained the two dominant categories and together accounted for 52.1% of woven garment exports in 2025, only modestly below 54.0% in 2006. The three largest categories represented around 61% of exports at both ends of the period, while the five largest changed only slightly from 73.0% to 74.0%. Structural change has therefore occurred mainly within an already concentrated product hierarchy rather than through a broadening of the product base.

Women's Suits & Trousers remain overwhelmingly the largest category. Exports increased from approximately US\$49.6 billion in 2006 to a record US\$78.4 billion in 2025, while their share remained broadly stable at around 30%. The category alone generated approximately 29% of total net woven garment export growth. Men's Suits & Trousers remained firmly in second position, increasing from approximately US\$35.8 billion to US\$55.4 billion and reaching a new historical high in 2025. Together, these two categories generated almost half of the entire net increase in woven garment exports.

The clearest structural gains occurred in outerwear. Women's Coats & Jackets increased from approximately US\$8.2 billion to US\$22.7 billion, raising their share from 5.2% to 8.8% and moving from seventh to third position. Men's Coats & Jackets rose from about US\$7.3 billion to US\$18.3 billion, with their share increasing from 4.6% to 7.1%. By contrast, Men's Shirts grew only modestly from approximately US\$11.6 billion to US\$13.8 billion, causing their share to fall from 7.3% to 5.4% and their ranking from third to sixth. Women's Blouses & Shirts followed a similar, though less severe, trajectory.

Table 26-1: Major Woven Garment Export Products in 2025 (US\$ billion)

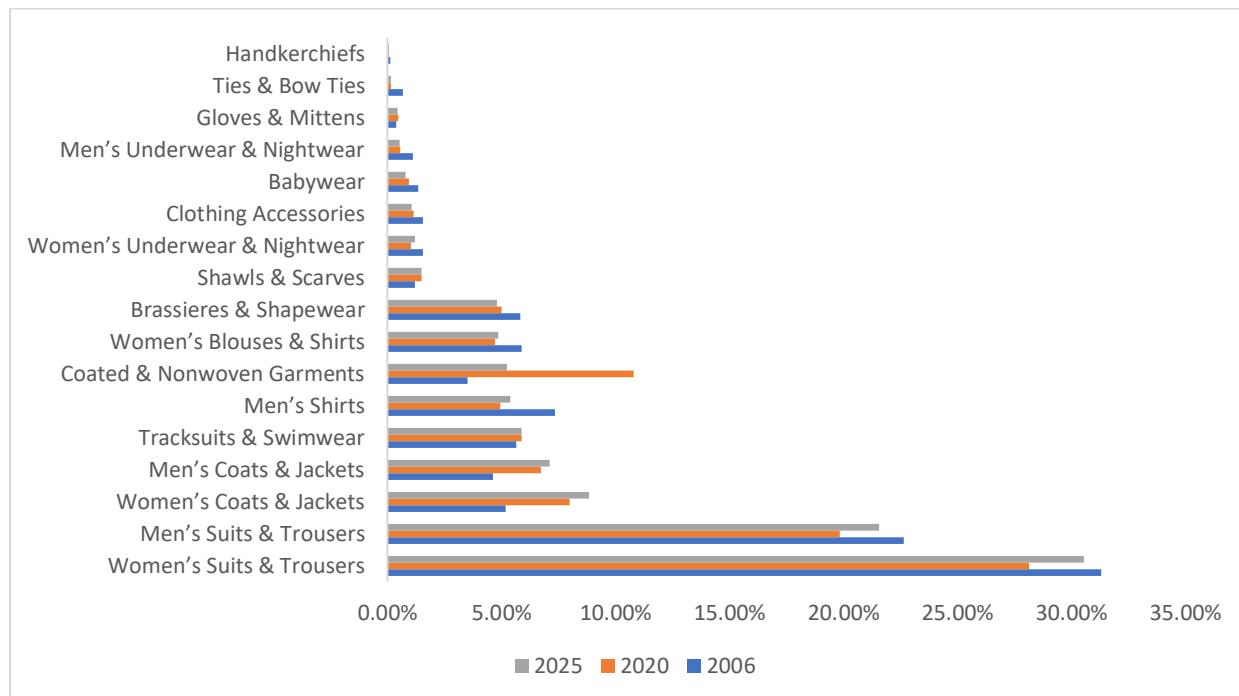


The 2025 ranking illustrates how dominant the largest categories remain. Women's Suits & Trousers and Men's Suits & Trousers occupy the first two positions by a wide margin, followed by Women's Coats & Jackets and Men's Coats & Jackets, with Tracksuits & Swimwear completing the five largest categories.

Growth contribution is even more concentrated than market share. Women's Suits & Trousers generated approximately 29.3% of net growth, Men's Suits & Trousers 19.8%, Women's Coats & Jackets 14.7%, Men's Coats

& Jackets 11.1%, and Tracksuits & Swimwear 6.2%. The three largest 2025 categories generated almost 64% of all net growth, while the five largest generated more than 81%.

Table 26-2: Changing Product Mix of World Woven Garments



The changing-share analysis reveals the most important internal shift. Women's and Men's Suits & Trousers remain dominant but have lost a small amount of relative share, while the principal gains have occurred in Women's Coats & Jackets, Men's Coats & Jackets, and Coated & Nonwoven Garments. The latter requires some caution: its share increased from 3.5% to 5.2% over the full period, but the category experienced an exceptional spike to approximately US\$22.2 billion in 2020 before declining sharply. Its subsequent growth should therefore be interpreted partly as recovery from that correction rather than uninterrupted structural acceleration.

Recent performance reinforces the distinction between structural gains and recovery. Between 2023 and 2025, Men's Suits & Trousers grew by approximately 7%, Women's Blouses & Shirts by around 8%, and Coated & Nonwoven Garments by almost 15%, while Women's Suits & Trousers reached a new historical high. Over the longer term, however, the strongest redistribution remains toward outerwear: Women's and Men's Coats & Jackets gained substantially more market share than any other major product groups, while Men's Shirts, Women's Blouses & Shirts, and Brassieres & Shapewear lost relative importance.

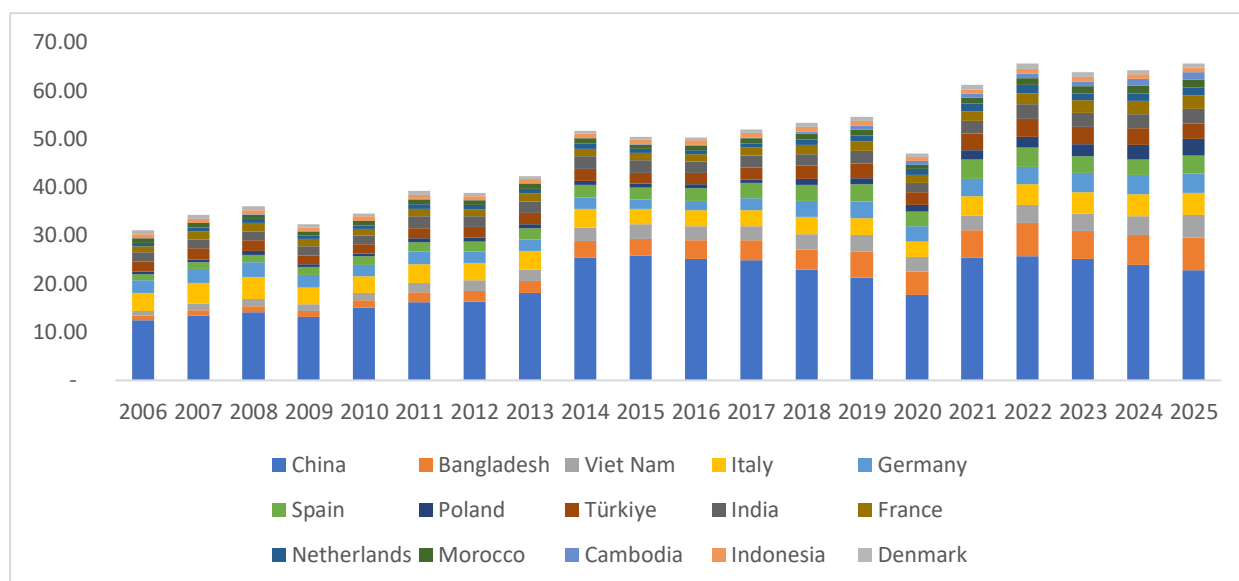
Taken together, the woven garment product structure remains highly concentrated, but the balance within it has shifted. Suits & Trousers still account for more than half of global trade, yet the strongest structural gains have occurred in Coats & Jackets. The defining change is therefore a reallocation of growth within the existing hierarchy, increasingly toward outerwear.

Leading Exporting and Importing Countries of Major Products in Woven Garments

Women's Suits & Trousers: China Leads, but Competitive Power Broadens

Women's Suits & Trousers (HS 6204) are the largest product category in global woven garment trade. World exports increased from approximately US\$49.6 billion in 2006 to a record US\$78.4 billion in 2025, an increase of about 58%. Concentration among the three largest exporters changed little, from approximately 44.6% in 2006 to 43.7% in 2025. Beneath this stability, however, the identity and competitive strength of the leading suppliers changed substantially.

Table 27: Leading Exporters of Women's Suits & Trousers (US\$ billion)

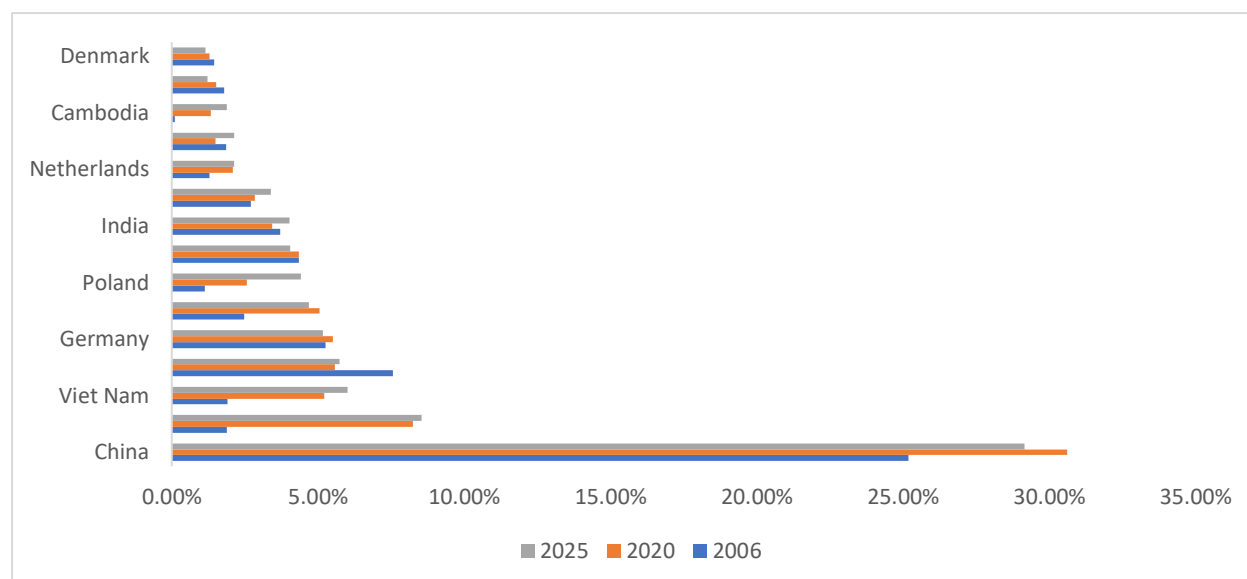


China remains the clear market leader. Exports increased from approximately US\$12.5 billion in 2006 to US\$22.9 billion in 2025, while its share rose from 25.2% to 29.1%. China alone generated approximately 36% of net global export growth over the period. More recently, however, exports declined by approximately 8.9% between 2023 and 2025 after exceeding US\$25 billion in 2023.

The most important competitive transformation occurred immediately beneath China. Bangladesh advanced from 13th position in 2006 to second in 2025, with exports increasing from approximately US\$935 million to US\$6.70 billion and its share rising from 1.9% to 8.5%. Viet Nam moved from 12th to third position as exports rose from approximately US\$939 million to US\$4.71 billion and its share increased from 1.9% to 6.0%. Together, China, Bangladesh, and Viet Nam generated almost 69% of total net global growth.

Italy moved in the opposite direction, falling from third to fourth position as its share declined from 7.6% to 5.7%, while Germany remained comparatively stable at around 5.2%. Spain strengthened significantly, almost doubling its share from 2.5% to 4.7%. Poland advanced from 20th to seventh position, while Cambodia moved from 60th to 13th. The Netherlands and Morocco also strengthened, whereas Türkiye experienced both long-term relative erosion and recent contraction.

Table 27-1: Changing Shares of Leading Women's Suits & Trousers Exporters



The market-share comparison shows substantial redistribution despite broadly stable concentration among the three largest exporters. China remains considerably larger than any individual competitor, but Bangladesh and Viet Nam have moved from peripheral positions into second and third place. Spain, Poland, the Netherlands, Cambodia, and Morocco have also gained importance, creating a much stronger competitive tier beneath China.

The decline of several former major exporters is equally significant. Hong Kong, China was the world's second-largest exporter in 2006 with approximately US\$5.86 billion in exports, but by 2025 had fallen to 16th position and around US\$880 million. Romania, Mexico, Belgium, and the United Kingdom also lost substantial competitive ground.

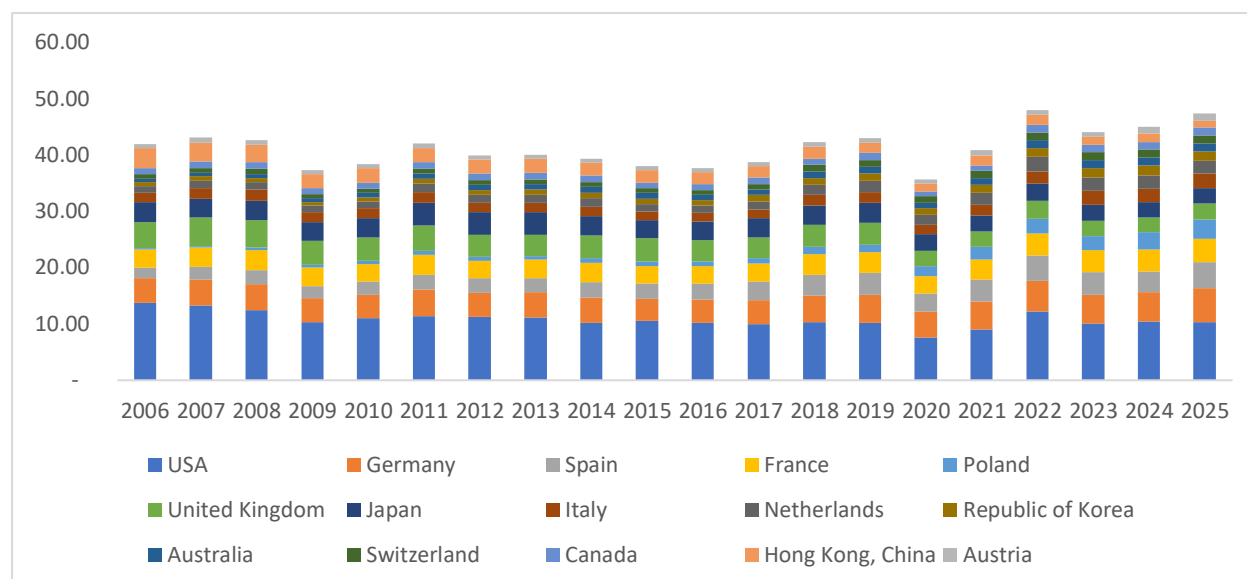
Recent performance suggests that the redistribution is continuing. Between 2023 and 2025, Cambodia's exports increased by approximately 59%, Poland's by 40.7%, the Netherlands' by 15%, India's by 9.9%, and Morocco's by 7.7%. Bangladesh and Viet Nam recorded increases of 14.6% and approximately 31.5%, respectively, although their 2025 observations are based on mirror data. In contrast, China declined by 8.9% and Türkiye by 11.6%.

Growth contribution reinforces the new competitive order. China generated approximately 36% of net global growth, Bangladesh 20%, Viet Nam 13%, and Poland around 10%. The current three largest exporters alone generated almost 69% of the entire increase between 2006 and 2025. Women's Suits & Trousers therefore remain anchored by China, but competitive strength has been substantially redistributed toward Bangladesh, Viet Nam, and a broader group of increasingly important suppliers.

Women's Suits & Trousers: Demand Diversifies Dramatically Beyond the Traditional Leaders

The import side of Women's Suits & Trousers (HS 6204) presents an even stronger diversification story than the export side. The three largest import markets accounted for approximately 44.1% of world imports in 2006 but only 31.0% in 2025, while the five largest declined from 57.8% to 42.1%. The countries that ranked among the fifteen leading import markets in 2025 collectively accounted for almost 84.0% of world imports in 2006, compared with 69.9% in 2025, showing how strongly demand has expanded beyond the markets that lead today.

Table 28: Leading Importers of Women's Suits & Trousers (US\$ billion)

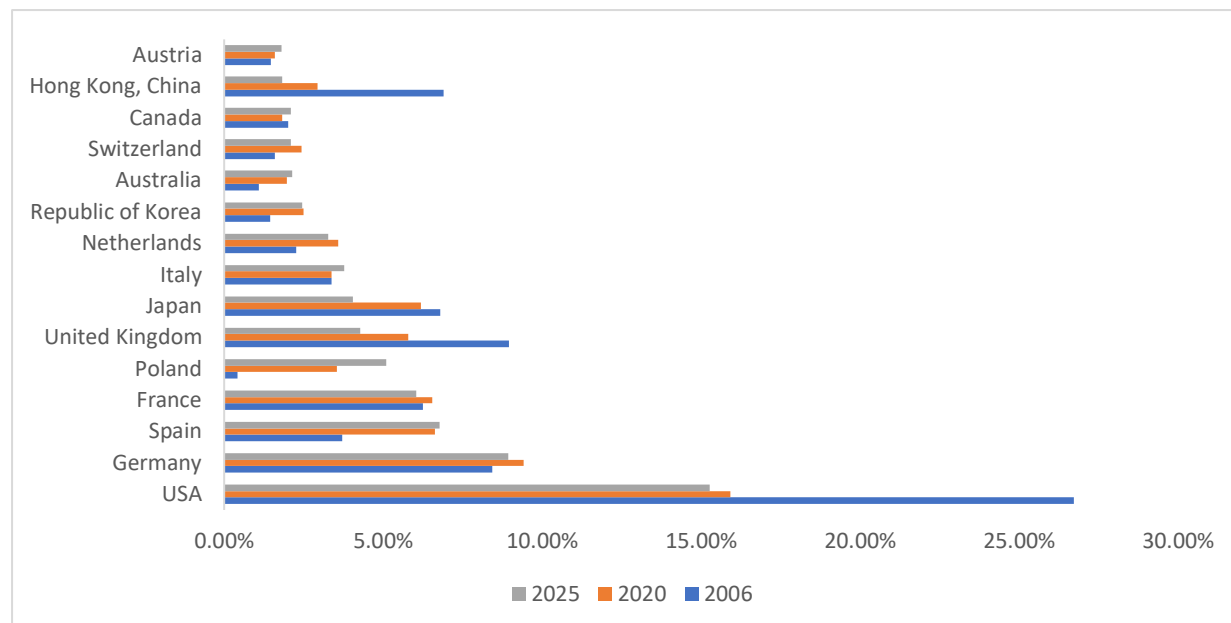


The USA remains the largest importing market, but its former dominance has been dramatically reduced. Imports declined from approximately US\$13.8 billion in 2006 to US\$10.3 billion in 2025, while its share fell from 26.7% to 15.3%. Although demand recovered considerably after 2020, 2025 imports remained around one-quarter below their 2006 level.

Germany strengthened its position, moving from third to second place and increasing its share from 8.4% to 8.9%. Imports also increased by 19.2% between 2023 and 2025. Spain recorded an even stronger long-term transformation, rising from seventh to third position as imports increased from approximately US\$1.92 billion to US\$4.59 billion and its share from 3.7% to 6.8%. Spain alone generated approximately 16.5% of net global demand growth over the full period.

Poland advanced from 30th position in 2006 to fifth in 2025 as imports increased from only US\$217 million to approximately US\$3.45 billion and its share rose from 0.4% to 5.1%. Poland generated almost 20% of the entire net increase in global Women's Suits & Trousers imports. The United Kingdom and Japan moved in the opposite direction. The United Kingdom fell from second to sixth position as imports declined from approximately US\$4.62 billion to US\$2.90 billion and its share from almost 9% to 4.3%, while Japan also experienced absolute contraction and substantial share loss. Hong Kong, China fell from fourth position and a 6.9% share in 2006 to 14th position and only 1.8% in 2025.

Table 28-1: Changing Shares of Leading Women's Suits & Trousers Importers



The share comparison makes the redistribution particularly clear. The USA lost more than eleven percentage points of global share, while the United Kingdom, Japan, and Hong Kong, China also experienced major structural erosion. These losses were not absorbed by a single replacement market; demand instead spread across Germany, Spain, Poland, and a wider group of medium-sized destinations.

The contrast with export supply is substantial. In 2025, the fifteen leading exporters accounted for approximately 83.7% of global exports, compared with only 69.9% for the fifteen leading import markets. Export supply was therefore considerably more concentrated than destination demand.

Growth contribution provides even stronger evidence of diversification. Poland generated approximately 19.9% of net global demand growth, Spain 16.5%, and Germany 10.6%, while the Netherlands, the Republic of Korea, Australia, France, and Italy also contributed positively. By contrast, the USA, Hong Kong, China, the United Kingdom, and Japan made negative contributions. The current three largest markets—the USA, Germany, and Spain—generated only about 6% of total net growth, while the fifteen leading import markets in 2025 collectively generated only around one-third. Roughly two-thirds of all additional demand therefore came from markets outside this group.

Recent momentum shows that the geographical redistribution is continuing. Between 2023 and 2025, Poland's imports increased by approximately 40%, Austria's by 39%, Germany's by 19.2%, and Spain's by 12.2%, while France and Italy also expanded. In contrast, Hong Kong, China declined by approximately 9.3%, the Netherlands by 5.1%, and Japan by 3.5%. Women's Suits & Trousers therefore remain supplied by a relatively concentrated group of exporters, while demand has shifted toward a much more multi-destination global market.

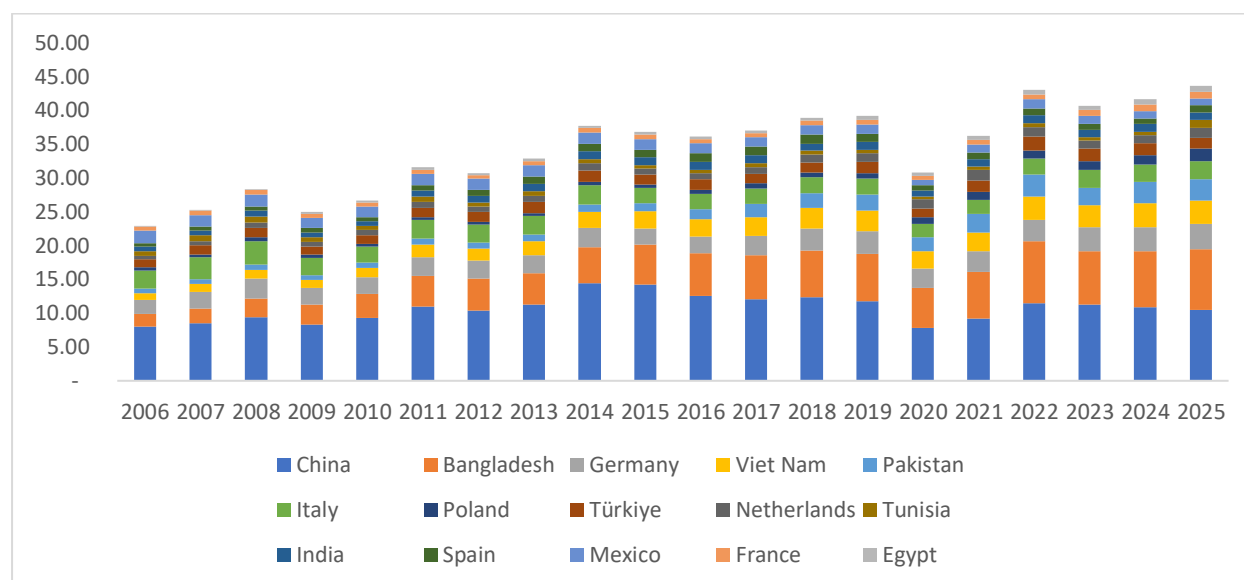
Men's Suits & Trousers: Supply Consolidates Around a New Competitive Group

Men's Suits & Trousers (HS 6203) remain the second-largest product category in woven garments. World exports increased from approximately US\$35.8 billion in 2006 to a record US\$55.4 billion in 2025, an increase of about

55%. Growth strengthened after 2020, with exports rising by 26.7% between 2020 and 2023 and a further 7.0% through 2025.

Unlike the women's category, concentration at the top increased. The three largest exporters accounted for approximately 35.7% of world exports in 2006 and 41.9% in 2025. This increase was not driven by stronger Chinese dominance, but by the rapid rise of Bangladesh and other increasingly competitive suppliers.

Table 29: Leading Exporters of Men's Suits & Trousers (US\$ billion)



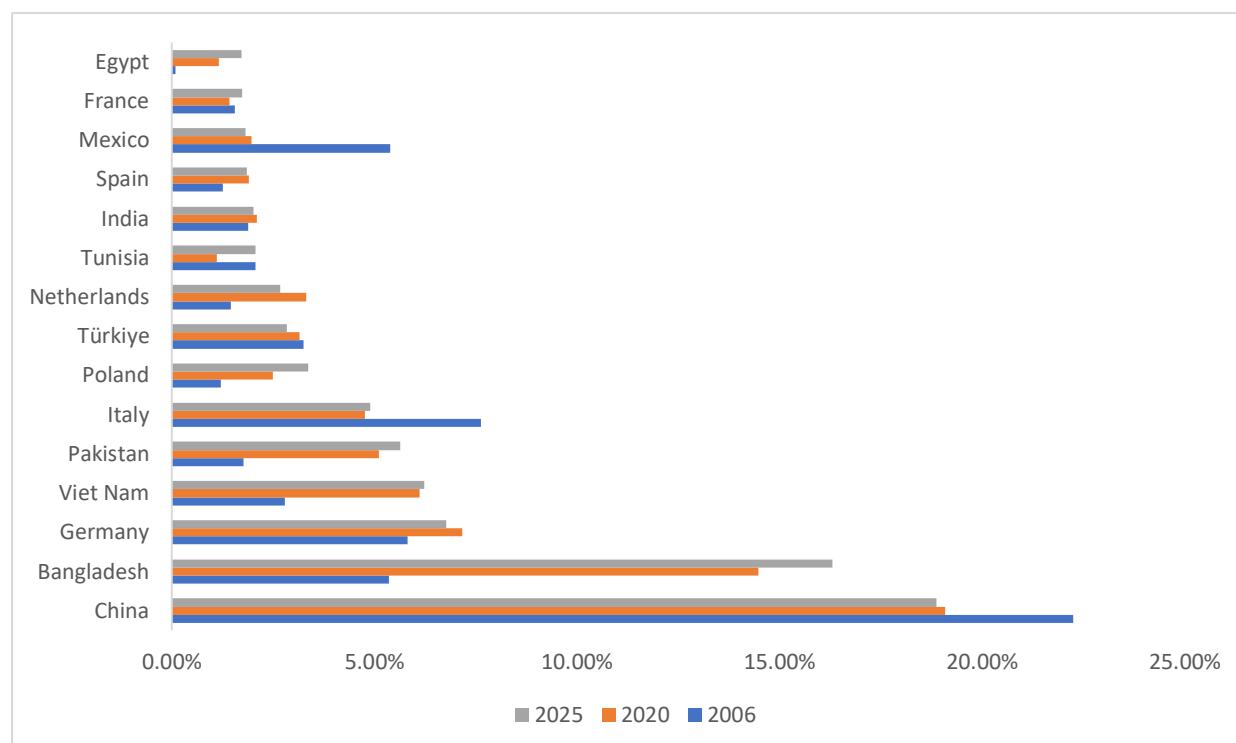
China remains the world's largest exporter, but its relative position has weakened. Exports increased from approximately US\$8.0 billion in 2006 to US\$10.5 billion in 2025, while its share declined from 22.3% to 18.9%. After reaching approximately US\$11.2 billion in 2023, exports declined by about 7% through 2025.

Bangladesh recorded the largest structural gain. Exports rose from approximately US\$1.92 billion to US\$9.03 billion, its share more than tripled from 5.4% to 16.3%, and its ranking improved from sixth to second. Bangladesh generated approximately 36% of the entire net increase in world exports. The gap with China narrowed from more than fourfold in 2006 to approximately US\$1.5 billion in 2025.

Germany remained the third-largest supplier, while Viet Nam rose from eighth to fourth position and increased its share from 2.8% to 6.2%. Pakistan advanced from 13th to fifth position as exports increased from approximately US\$632 million to US\$3.13 billion and its share rose from 1.8% to 5.6%. Pakistan generated approximately 12.8% of net global growth—slightly more than China.

Italy moved in the opposite direction, falling from second to sixth position as its share declined from 7.6% to 4.9%. Poland advanced from 21st to seventh position, while the Netherlands, Spain, and India also strengthened. Egypt emerged from 66th position in 2006 to 15th in 2025, with exports approaching US\$1 billion.

Table 29-1: Changing Shares of Leading Men's Suits & Trousers Exporters



The market-share comparison captures a fundamental redistribution of competitive strength. China remains the largest supplier but has lost share, while Bangladesh has moved decisively into second place, Viet Nam into fourth, Pakistan into fifth, and Poland into seventh. At the same time, several traditional suppliers have been displaced. Mexico fell from fifth position and a 5.4% share in 2006 to 13th and 1.8% in 2025, while Hong Kong, China dropped from fourth to 28th position as exports declined from approximately US\$2.01 billion to US\$351 million.

Growth contribution reinforces the scale of this redistribution. Bangladesh generated approximately 36.4% of net global growth, followed by Pakistan at 12.8%, China at 12.7%, and Viet Nam at 12.5%. Germany contributed 8.5% and Poland another 7.3%. The fifteen countries that ranked as the largest exporters in 2025 collectively generated approximately 106% of net world growth because contractions among former major exporters offset part of the gains recorded by today's leading suppliers.

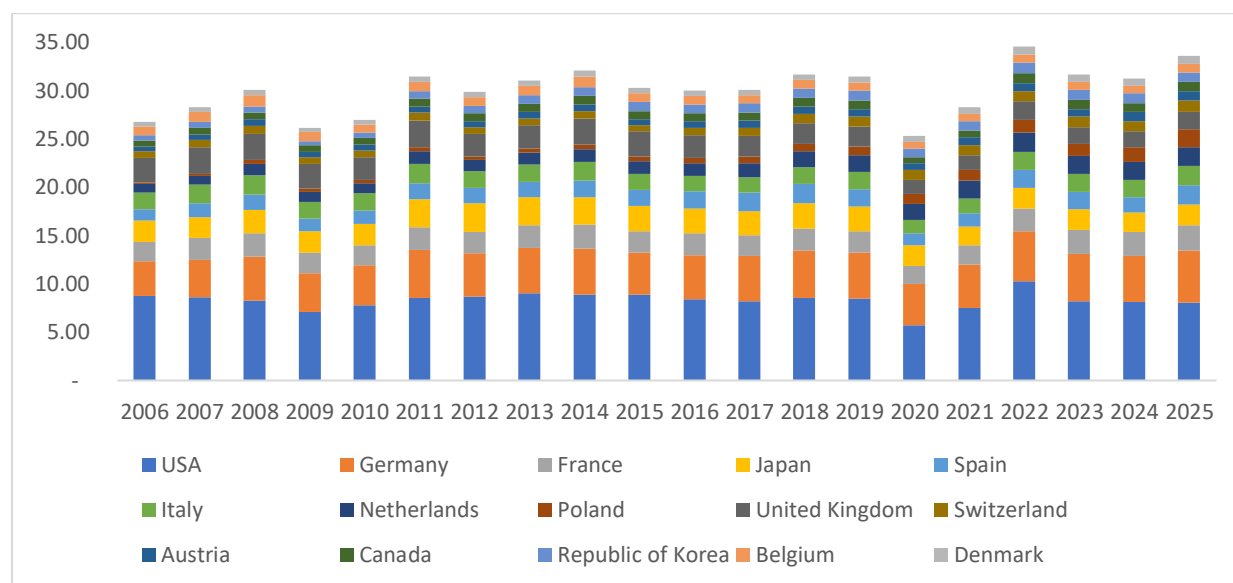
Recent performance shows that the redistribution remains active. Between 2023 and 2025, Poland's exports increased by approximately 47.9%, the Netherlands' by 36%, Pakistan's by 19.9%, India's by 11.3%, and Spain's by 10.5%. Egypt expanded by approximately 67%, while Cambodia, immediately outside the fifteen leading exporters, grew by another 31%. Bangladesh and Viet Nam recorded increases of approximately 13.8% and 8.2%, respectively, although their 2025 observations are based on mirror data. By contrast, Türkiye declined by almost 19.5%, Mexico by 12.4%, and China by 7%.

Men's Suits & Trousers have therefore become more concentrated at the top, but around a very different competitive geography. China remains the largest exporter, while Bangladesh has moved close behind and Pakistan and Viet Nam have become major global suppliers.

Men's Suits & Trousers: Demand Diversifies as Supply Consolidates

The import market for Men's Suits & Trousers (HS 6203) has expanded while becoming substantially less geographically concentrated. Growth strengthened after 2020, and 2025 represented the highest level in the twenty-year series, marginally exceeding the previous peak recorded in 2022. The three largest import markets accounted for approximately 43.9% of world imports in 2006 but only 34.3% in 2025, while the five largest declined from 56.2% to 43.2%. The countries that ranked among the fifteen leading import markets in 2025 collectively accounted for approximately 82.0% of world imports in 2006, compared with 71.7% in 2025, showing how strongly demand has expanded beyond the markets that lead today.

Table 30: Leading Importers of Men's Suits & Trousers (US\$ billion)

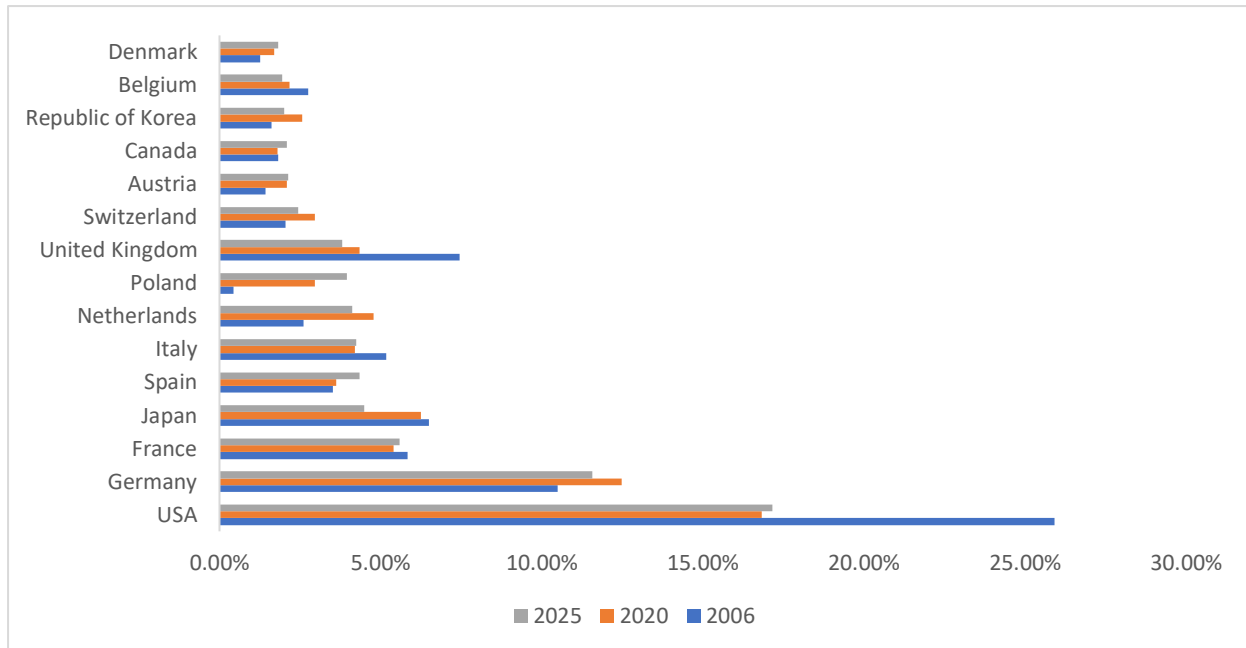


The USA remains the world's largest market, but its dominance has weakened considerably. Imports declined from approximately US\$8.79 billion in 2006 to US\$8.05 billion in 2025, while its share fell from 25.9% to 17.2%. Demand also softened after 2023.

Germany strengthened its position as the clear second-largest market. Imports increased from approximately US\$3.56 billion to US\$5.43 billion, while its share rose from 10.5% to 11.6%. Germany also generated 14.4% of net global demand growth, the largest positive contribution among the fifteen leading markets in 2025. France moved into third position, while Japan's imports were marginally lower in 2025 than in 2006 and its share fell from 6.5% to 4.5%.

Spain advanced from eighth to fifth position as imports increased from approximately US\$1.20 billion to US\$2.04 billion and its share rose from 3.5% to 4.4%. The Netherlands also strengthened, moving from tenth to seventh position and increasing its share from 2.6% to 4.1%. Poland advanced from 32nd to eighth position, with imports increasing from US\$151 million to US\$1.86 billion and its share rising from 0.4% to almost 4.0%. In contrast, the United Kingdom fell from third to ninth position as imports declined from approximately US\$2.53 billion to US\$1.79 billion and its share nearly halved from 7.5% to 3.8%.

Table 30-1: Changing Shares of Leading Men's Suits & Trousers Importers



The changing-share analysis highlights a clear redistribution away from the traditional dominant markets. The USA, United Kingdom, and Japan all lost substantial relative weight, but their decline did not produce a new dominant destination. Demand instead spread across Germany, Spain, the Netherlands, Poland, Austria, Switzerland, and a broader group of medium-sized markets.

The contrast with export supply is important. Concentration among the three largest exporters increased from 35.7% to 41.9% between 2006 and 2025, while the share of the three largest import markets fell from 43.9% to 34.3%. In 2025, the fifteen leading exporters accounted for approximately 78.8% of world exports, compared with 71.7% for the fifteen leading import markets. Export supply has therefore become more concentrated at the top while destination demand has become increasingly dispersed.

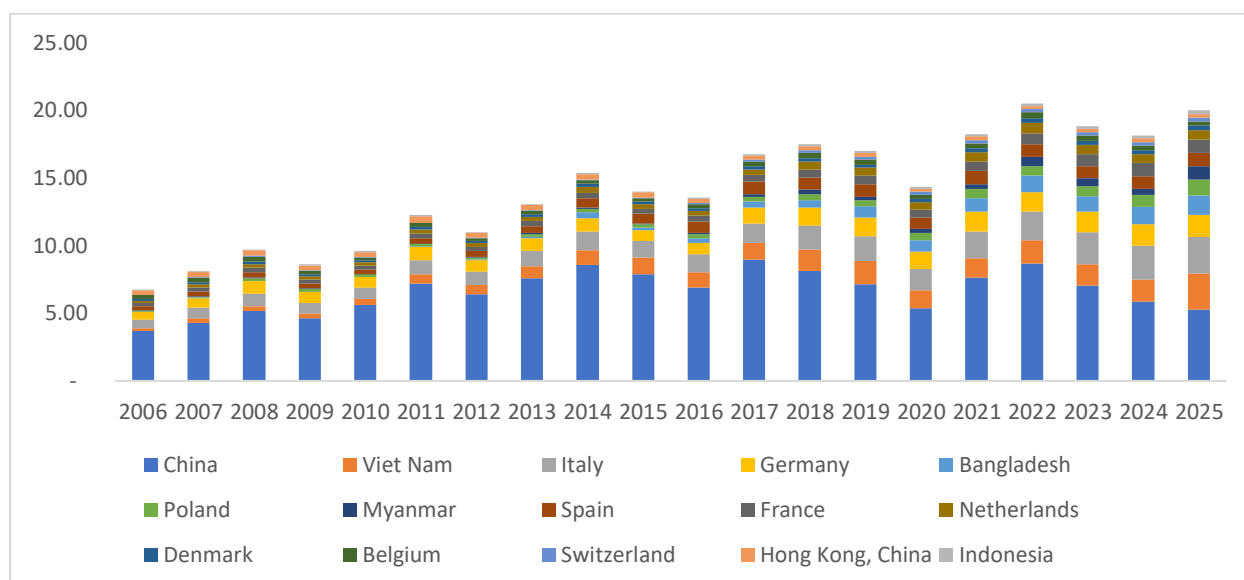
Growth contribution reinforces this divergence. Germany generated approximately 14.4% of net demand growth, Poland 13.1%, the Netherlands 8.0%, and Spain 6.5%, while France, Austria, Switzerland, and Denmark also contributed positively. By contrast, the USA and the United Kingdom each made negative contributions of approximately 5.7%. The current three largest markets—the USA, Germany, and France—generated only about 13.7% of total net growth, while the fifteen leading import markets in 2025 collectively accounted for only around 53%. Almost half of all additional demand therefore came from markets outside this group.

Recent momentum indicates that the broadening is continuing. Between 2023 and 2025, Poland's imports increased by 47.4%, Austria's by 28.3%, Denmark's by 16.1%, Spain's by 15.6%, and Germany's by 10.4%. By contrast, the Republic of Korea declined by approximately 8.8%, Japan by 3.6%, and the USA weakened slightly. Men's Suits & Trousers therefore reveal a widening geographical gap between supply and demand: export supply is consolidating around a stronger competitive group, while the commercial market is becoming increasingly multi-destination.

Women's Coats & Jackets: China's Dominance Recedes as a Broader Supplier Base Emerges

Women's Coats & Jackets (HS 6202) have been one of the most dynamic segments of woven garment trade. World exports increased from approximately US\$8.2 billion in 2006 to US\$22.7 billion in 2025, almost 2.8 times their initial level and equivalent to a long-term CAGR of about 5.5%. Growth remained strong after 2020, although the 2025 value was still about 1.2% below the historical peak reached in 2022. Concentration at the top declined substantially: the three largest exporters accounted for almost 59.7% of world exports in 2006 but only 46.9% in 2025, while the five largest declined from 66.7% to 60.5%.

Table 31: Leading Exporters of Women's Coats & Jackets (US\$ billion)

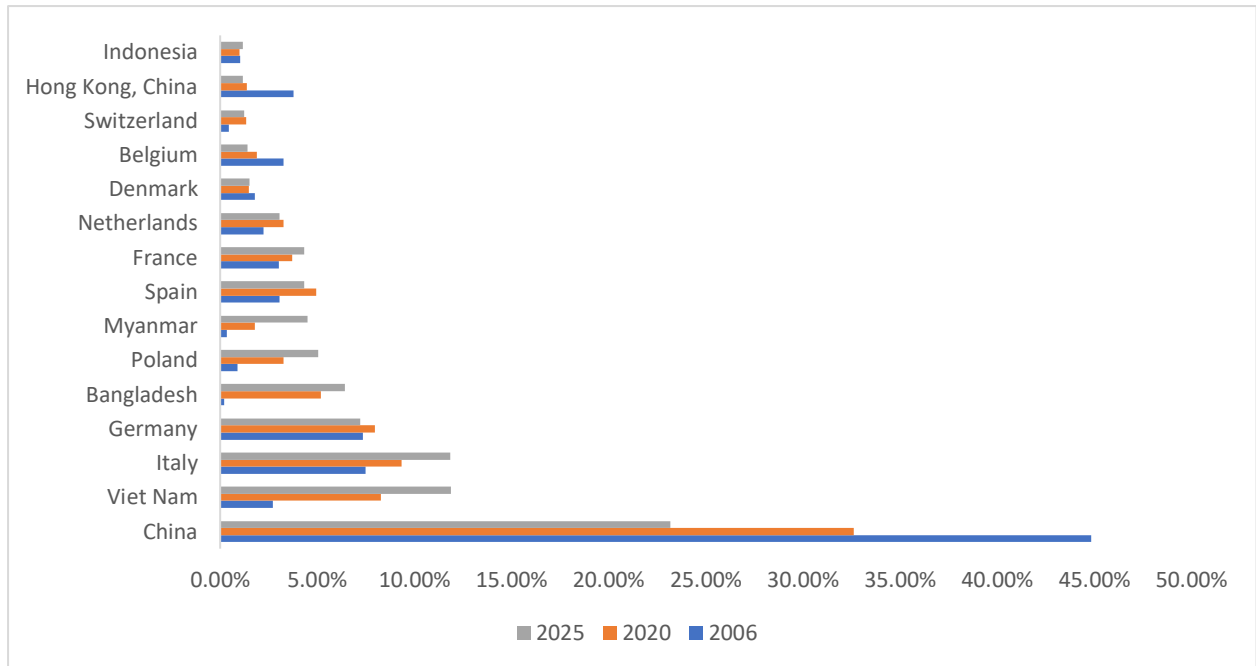


China remains the world's largest exporter, but its relative dominance has receded sharply. Chinese exports increased from approximately US\$3.69 billion in 2006 to US\$5.26 billion in 2025, yet its global share fell from 44.8% to 23.2%. Recent performance reinforces the shift: exports reached approximately US\$7.05 billion in 2023 before declining by more than 25% through 2025.

Viet Nam recorded the largest competitive gain, with exports increasing from approximately US\$222 million in 2006 to US\$2.69 billion in 2025. Its share rose from 2.7% to 11.9% and its ranking improved from eighth to second. Italy followed an equally notable trajectory, increasing exports from approximately US\$615 million to US\$2.69 billion and raising its share from 7.5% to 11.8%. By 2025, Italy stood almost level with Viet Nam. This distinguishes Women's Coats & Jackets from many other garment products, as European exporters continue to occupy unusually strong positions alongside the major Asian suppliers.

Germany remained structurally stable at around 7% of world exports, while Bangladesh advanced from 41st position in 2006 to fifth in 2025 and raised its share from around 0.2% to 6.4%. Poland moved from 15th to sixth position, Myanmar from 25th to seventh, while Spain and France each increased their shares to approximately 4.3%.

Table 31-1: Changing Shares of Leading Women's Coats & Jackets Exporters



The changing-share analysis captures the transformation particularly clearly. China's share almost halved, but no single exporter replaced its former dominance. Competitive weight instead shifted toward Viet Nam, Italy, Bangladesh, Poland, Myanmar, and a wider group of established European exporters.

Growth contribution illustrates how broadly expansion was distributed. Viet Nam generated approximately 17.1% of net global growth, Italy 14.3%, China 10.9%, Bangladesh about 10%, Poland 7.4%, Germany 7.1%, and Myanmar 6.8%, while Spain and France each contributed approximately 5.1%. The current three largest exporters—China, Viet Nam, and Italy—generated only about 42% of net growth.

Several former suppliers moved in the opposite direction. Belgium fell from fifth to 12th position as its share declined from 3.3% to 1.4%, while Hong Kong, China dropped from fourth to 14th and saw its share fall from 3.8% to only 1.2%. The United Kingdom also lost substantial relative importance.

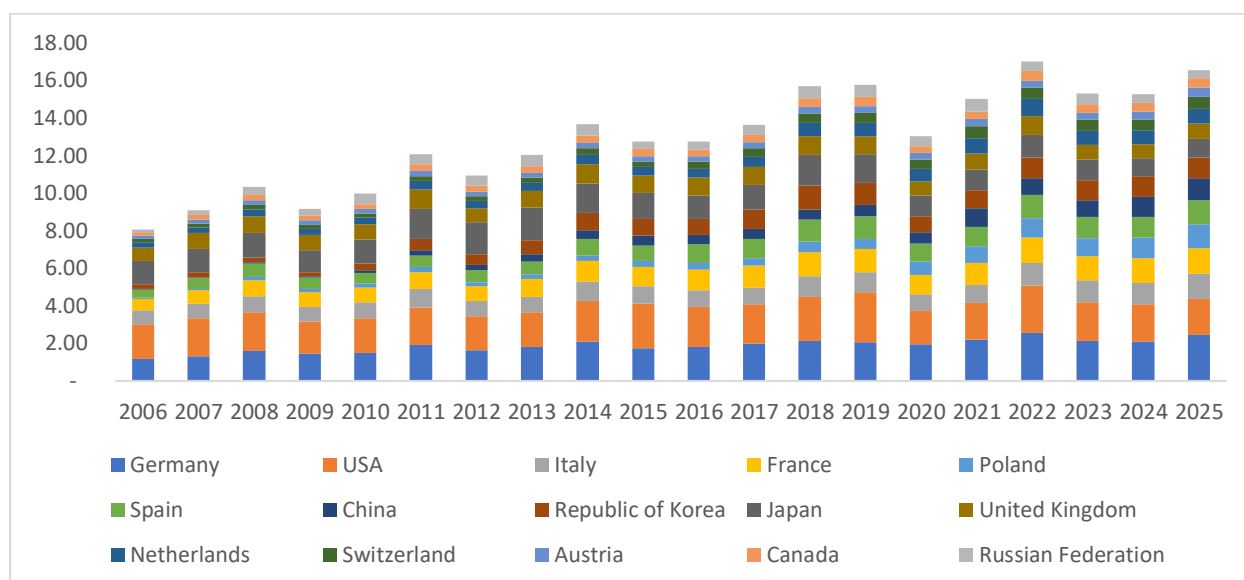
Recent performance indicates that the redistribution remains active. Between 2023 and 2025, Poland's exports increased by approximately 57%, Indonesia's by 19%, Italy's by 13.4%, and France's by 9.5%. Viet Nam, Bangladesh, and Myanmar also recorded very strong reported growth, although their 2025 values are based on mirror data and should therefore be interpreted cautiously. In contrast, China declined by more than 25% and Belgium by 21.7%.

Women's Coats & Jackets therefore provide one of the clearest examples of competitive redistribution in woven garments. China remains the largest exporter, but its share has fallen from almost half of the world market to less than one-quarter, with the space distributed across Viet Nam, Italy, Bangladesh, Poland, Myanmar, and a strong group of European exporters.

Women's Coats & Jackets: Germany Takes the Lead as Demand Spreads Across Markets

Women's Coats & Jackets (HS 6202) present one of the strongest examples of rapid market expansion accompanied by geographical diversification. By 2025, imports had recovered to within approximately 1.1% of their historical peak reached in 2022. The three largest import markets accounted for approximately 43.4% of world imports in 2006 but only 26.7% in 2025, while the five largest declined from 57.8% to 39.0%. Growth has therefore not shifted from one dominant destination to another; it has spread across a substantially broader group of markets.

Table 32: Leading Importers of Women's Coats & Jackets (US\$ billion)



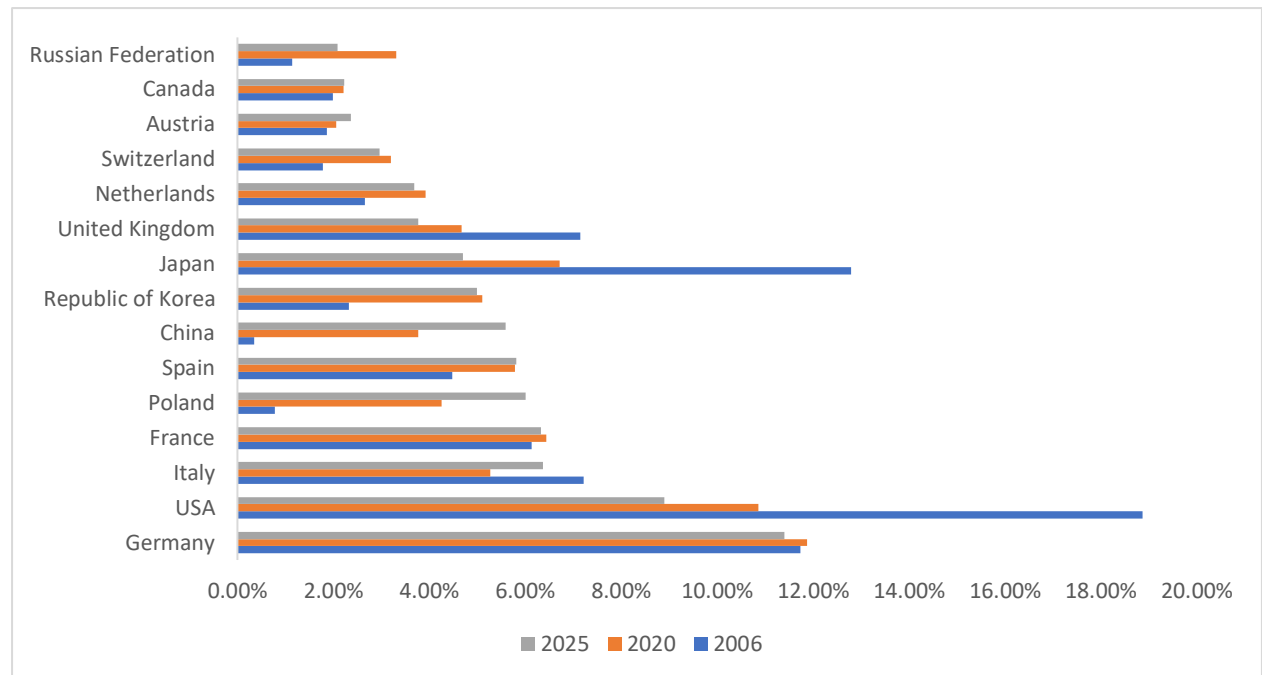
Germany overtook the USA to become the world's largest importing market. German imports increased from approximately US\$1.16 billion in 2006 to US\$2.44 billion in 2025. Its global share remained broadly stable at around 11%, but its ranking improved from third to first as former leading markets weakened. Imports also increased by 14.4% between 2023 and 2025.

The USA followed almost the opposite trajectory. It was the largest market in 2006, accounting for 18.9% of global demand, but its import value was almost unchanged nineteen years later. As the global market expanded, its share fell to 8.9%, pushing the USA into second position. Italy also strengthened, moving from fourth to third as imports almost doubled, while France expanded steadily and moved into fourth place.

Poland advanced from 18th position in 2006 to fifth in 2025 as imports increased from about US\$78 million to US\$1.29 billion and its share rose from below 0.8% to 6.0%. Spain also strengthened, increasing its share from 4.5% to 5.8%. China represents another important transformation, advancing from 30th position in 2006 to seventh in 2025 as its share increased from only 0.35% to 5.6%. Imports rose by a further 34.9% between 2023 and 2025.

Japan and the United Kingdom moved in the opposite direction. Japan fell from second to ninth position as its share declined from 12.8% to 4.7%, while the United Kingdom dropped from fifth to tenth as its share fell from 7.1% to 3.8%. The Republic of Korea strengthened substantially over the longer period, more than doubling its share from 2.3% to 5.0%.

Table 32-1: Changing Shares of Leading Women's Coats & Jackets Importers



The changing-share analysis reveals a major reshaping of the demand hierarchy. The USA and Japan together accounted for almost one-third of world demand in 2006, but both have since lost substantial relative importance. Germany is now the largest market, yet its share has remained broadly stable rather than becoming dominant. The principal gains have instead been distributed across Poland, China, Spain, the Republic of Korea, the Netherlands, Switzerland, and Austria.

The contrast with export supply is substantial. In 2025, the fifteen leading exporters accounted for approximately 88.2% of world exports, compared with 77.2% for the fifteen leading import markets. Export supply was therefore considerably more concentrated than destination demand.

Growth contribution reinforces the diversification. Germany generated approximately 11.1% of net global demand growth, Poland 10.5%, China 10.1%, the Republic of Korea 7.3%, Spain 7.0%, France 6.5%, Italy 5.6%, and the Netherlands 4.6%. By contrast, Japan made a negative contribution, while the USA generated only about 0.3% of net global growth. The current three largest markets—Germany, the USA, and Italy—collectively generated only about 17% of net growth.

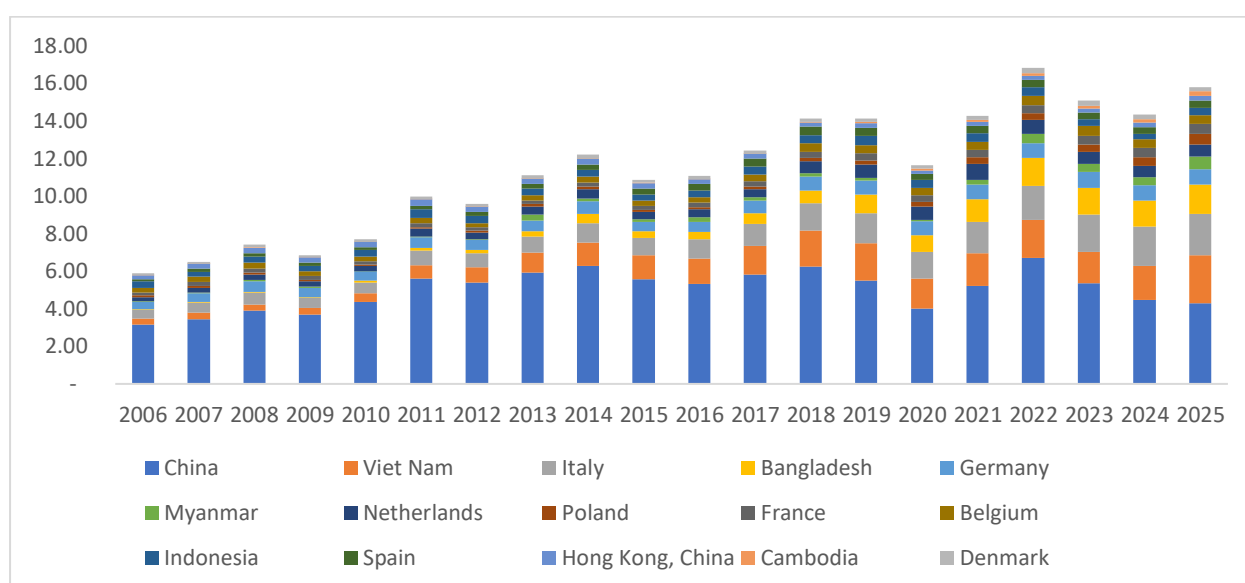
Recent performance indicates that the broadening is continuing. Between 2023 and 2025, Austria's imports increased by more than 41%, Poland's by 36.4%, China's by 34.9%, Italy's by 14.7%, Germany's by 14.4%, and Spain's by 10.7%. In contrast, the USA declined by approximately 6.9%, Japan by around 8%, and the Russian Federation by approximately 20%.

Women's Coats & Jackets therefore illustrate a substantial transformation in the geography of demand. Germany has replaced the USA as the largest market, but no new dominant destination has emerged. Growth has instead spread across a widening group of markets, creating a much more multi-destination demand structure.

Men's Coats & Jackets: China's Dominance Gives Way to a Broader Competitive Core

Men's Coats & Jackets (HS 6201) have been one of the faster-growing categories in woven garment trade. World exports increased from approximately US\$7.34 billion in 2006 to US\$18.29 billion in 2025, an increase of almost 150% and equivalent to a long-term CAGR of about 4.9%. Growth remained comparatively strong after 2020, although the 2025 value was still approximately 5.1% below the historical peak reached in 2022. Concentration among the three largest exporters declined from approximately 54.4% in 2006 to 49.6% in 2025, while the five largest remained broadly stable at around 63%.

Table 33: Leading Exporters of Men's Coats & Jackets (US\$ billion)

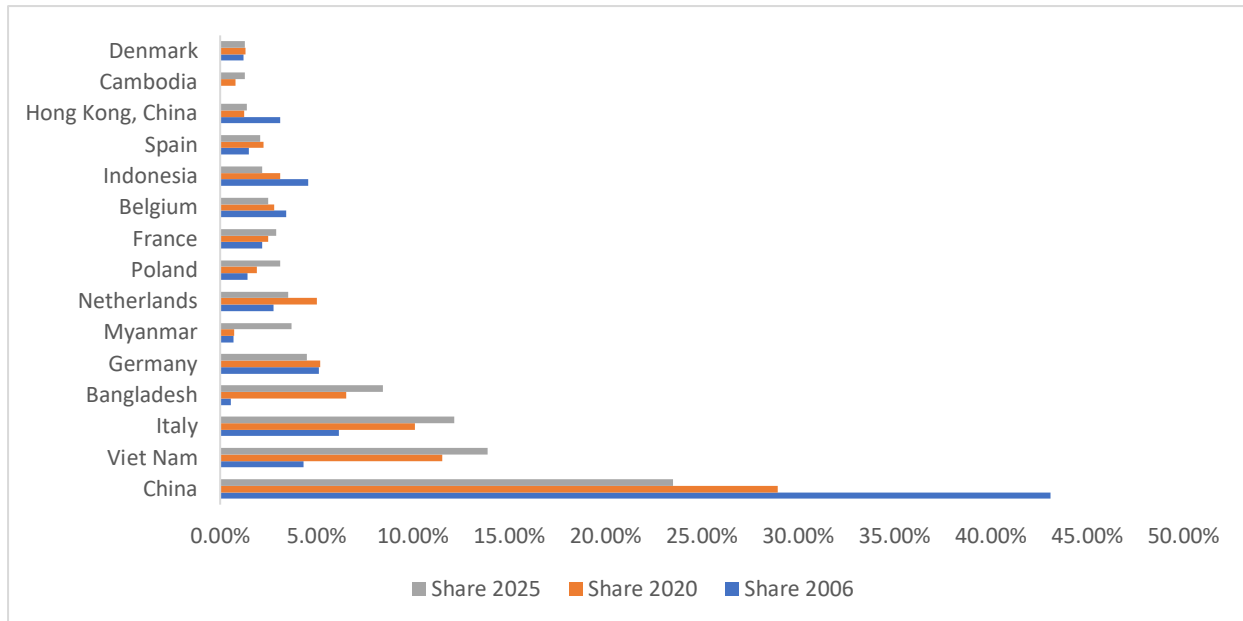


China remains the world's largest exporter, but its former dominance has been dramatically reduced. Exports increased from approximately US\$3.16 billion in 2006 to US\$4.30 billion in 2025, yet its share fell from 43.1% to 23.5%, a decline of almost 20 percentage points. Chinese exports also fell by almost 20% between 2023 and 2025.

Viet Nam recorded the largest competitive gain, increasing exports from approximately US\$317 million to US\$2.54 billion, raising its share from 4.3% to 13.9%, and advancing from fifth to second position. Viet Nam generated approximately 20.3% of net global export growth. Italy also strengthened substantially, with exports rising from approximately US\$453 million to US\$2.22 billion and its share almost doubling from 6.2% to 12.2%.

Bangladesh advanced from 23rd position in 2006 to fourth in 2025 as exports increased from only about US\$42 million to US\$1.54 billion and its share rose from 0.6% to 8.4%. Myanmar moved from 19th to sixth position, while the Netherlands strengthened more gradually. Poland advanced from 13th to eighth position, and Cambodia moved from 71st to 14th, increasing exports from less than US\$2 million to approximately US\$234 million.

Table 33-1: Changing Shares of Leading Men's Coats & Jackets Exporters



The changing-share analysis captures the redistribution clearly. China's share declined from more than 43% to around 23.5%, while competitive weight shifted toward Viet Nam, Italy, Bangladesh, Myanmar, Poland, and Cambodia. Several established European exporters nevertheless retained important positions, making the emerging competitive structure more geographically balanced than a simple shift from Europe toward Asia would suggest.

Growth contribution reinforces this pattern. Viet Nam generated approximately 20.3% of net world growth, Italy 16.2%, Bangladesh 13.7%, and China 10.4%. Myanmar contributed 5.7%, Poland 4.3%, while Germany and the Netherlands each contributed about 4.1%. The current three largest exporters—China, Viet Nam, and Italy—generated approximately 46.9% of total net growth.

Recent performance shows that the redistribution remains active. Between 2023 and 2025, Poland's exports increased by approximately 49.6%, Cambodia's by about 52%, Indonesia's by 14.2%, Italy's by 11.6%, and France's by 6.6%. Viet Nam, Bangladesh, and Myanmar also recorded strong reported growth, although their 2025 observations are based on mirror data and should therefore be interpreted cautiously. By contrast, China declined by almost 20%, Belgium by 9.8%, and Denmark by 14.4%.

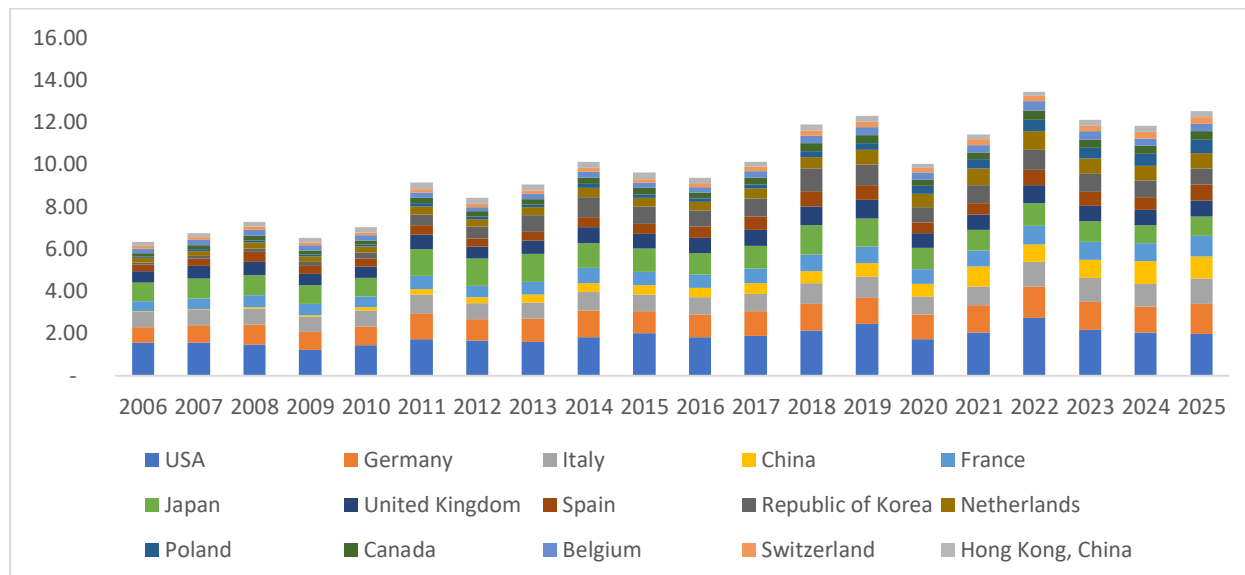
Men's Coats & Jackets therefore show a substantial reshaping of competitive leadership. China remains the largest exporter, but Viet Nam, Italy, and Bangladesh have emerged as major competitive forces, while Myanmar, Poland, and Cambodia form a second layer of advancing suppliers.

Men's Coats & Jackets: Demand Broadens Sharply Beyond the Traditional Markets

The import side of Men's Coats & Jackets (HS 6201) shows a substantial broadening of global demand. The three largest import markets accounted for approximately 41.5% of world imports in 2006 but only 27.3% in 2025. The countries that ranked among the fifteen leading import markets in 2025 collectively accounted for 83.6% of world

imports in 2006, compared with 74.5% in 2025, showing how demand has expanded beyond the markets that lead today.

Table 34: Leading Importers of Men's Coats & Jackets (US\$ billion)

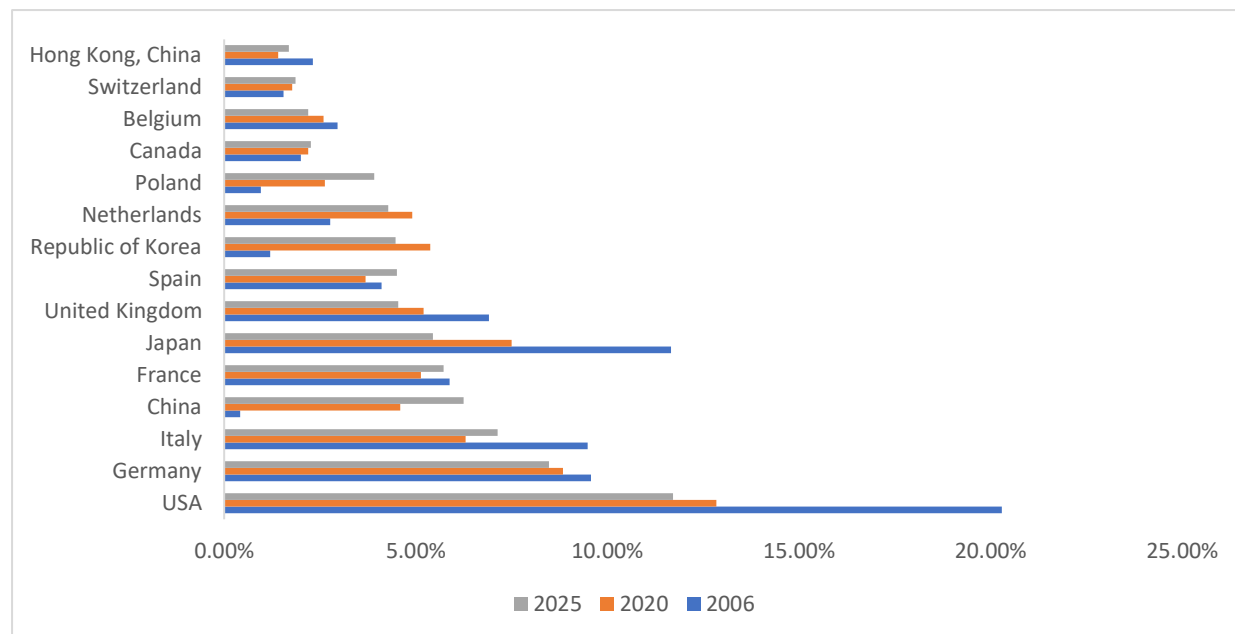


The USA remains the world's largest market, but its relative dominance has weakened substantially. Imports increased from approximately US\$1.57 billion in 2006 to US\$1.97 billion in 2025, while its share declined from 20.3% to 11.7%. Recent performance also softened, with imports falling by almost 10% between 2023 and 2025. Germany remains the second-largest market, with imports increasing from approximately US\$739 million to US\$1.43 billion and a further 9.4% between 2023 and 2025.

China recorded the most dramatic structural transformation. Imports increased from only approximately US\$33 million in 2006 to US\$1.05 billion in 2025, lifting its share from 0.4% to 6.2% and its ranking from 29th to fourth. China generated approximately 11.2% of net global import growth, the largest contribution among the fifteen leading markets in 2025. This is particularly notable because China simultaneously remains the largest exporter of Men's Coats & Jackets.

Japan and the United Kingdom moved in the opposite direction. Japan's imports were virtually unchanged in absolute terms between 2006 and 2025, but its share fell from 11.7% to 5.5% and its ranking from second to sixth. The United Kingdom's share declined from 6.9% to 4.5%. The Republic of Korea, the Netherlands, and Poland strengthened over the longer term, with Poland advancing from 19th to 11th position.

Table 34-1: Changing Shares of Leading Men's Coats & Jackets Importers



The changing-share analysis confirms a clear shift away from the traditional demand structure. The USA and Japan lost substantial global share, while the United Kingdom and Belgium also weakened. At the same time, China, Poland, the Republic of Korea, the Netherlands, Spain, and Switzerland became more important. The losses among traditional markets therefore did not produce a new dominant destination; demand instead spread across a broader group of countries.

Growth contribution reinforces this diversification. China generated approximately 11.2% of net global import growth, Germany 7.5%, the Republic of Korea 7.2%, Poland 6.4%, France and the Netherlands around 5.6% each, Italy 5.1%, and Spain 4.9%. Despite remaining the largest market, the USA generated only approximately 4.5% of net growth. The current three largest import markets—the USA, Germany, and Italy—collectively generated only about 17% of total net growth, while the fifteen leading markets in 2025 accounted for around 68%. Approximately 32% of all additional demand therefore came from markets outside this group.

Recent performance shows that the market remains highly dynamic. Between 2023 and 2025, Poland's imports increased by approximately 29.3%, China's by 23.2%, Switzerland's by 17%, Spain's by 15.5%, France's by 13.6%, and Germany's by 9.4%. In contrast, the Republic of Korea declined by approximately 12.3%, Belgium by 10.1%, and the USA by almost 10%.

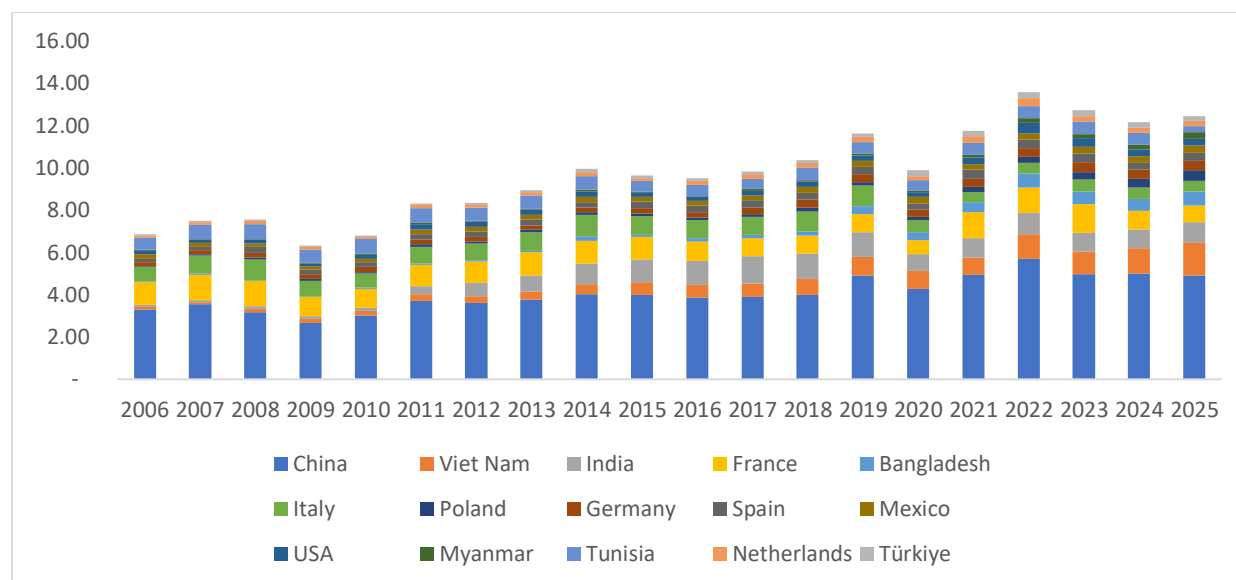
Men's Coats & Jackets therefore reveal a widening gap between the geography of supply and demand. Export supply remains concentrated among a relatively small group of leading countries, while demand is increasingly distributed across a broader range of destinations.

Tracksuits & Swimwear: A Broader Supplier Base Emerges Beneath China

Tracksuits & Swimwear (HS 6211) have expanded substantially over the longer term, with world exports increasing from approximately US\$9.0 billion in 2006 to US\$15.1 billion in 2025, an increase of about 69%. Growth accelerated after 2020, although momentum subsequently weakened: exports were essentially flat

between 2023 and 2025, and the 2025 level remained around 6.3% below the historical peak reached in 2022. The supplier base has broadened at the top, with the three largest exporters accounting for approximately 56.5% of world exports in 2006 and 49.2% in 2025, while the five largest declined from 66.2% to 58.8%.

Table 35: Leading Exporters of Tracksuits & Swimwear (US\$ billion)

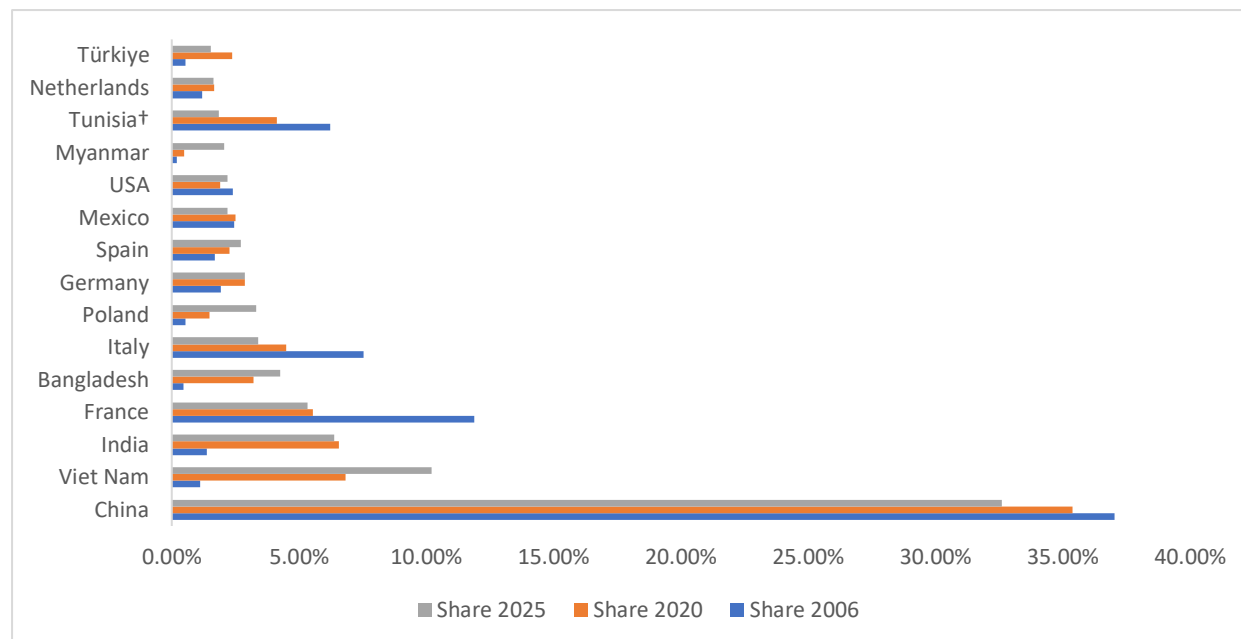


China remains the largest exporter by a wide margin, with exports increasing from approximately US\$3.32 billion in 2006 to US\$4.93 billion in 2025. Its global share nevertheless declined from 37.0% to 32.6%, while recent exports were broadly flat.

Viet Nam recorded the strongest competitive gain, advancing from 15th position in 2006 to second in 2025 as exports increased from approximately US\$100 million to US\$1.54 billion and its share rose from 1.1% to 10.2%. Viet Nam generated approximately 23.4% of total net global growth. India also moved sharply upward, from 13th to third position, as exports increased from approximately US\$122 million to US\$964 million and its share rose from 1.4% to 6.4%. Together, Viet Nam and India have emerged as the principal structural challengers beneath China.

France moved in the opposite direction. It was the second-largest exporter in 2006 with almost 12% of world trade but fell to fourth by 2025 as its share declined to 5.3%. Bangladesh advanced from 27th to fifth position and increased its share from less than 0.5% to approximately 4.25%, while Italy fell from third to sixth as its exports contracted in absolute terms. Poland moved from 24th to seventh position, and Myanmar from 40th to 12th, while Tunisia fell from fourth to 13th and lost substantial absolute and relative ground.

Table 35-1: Changing Shares of Leading Tracksuits & Swimwear Exporters



The changing-share analysis confirms a broader distribution of competitive strength. China remains dominant but has lost share, while Viet Nam, India, Bangladesh, Poland, and Myanmar have all moved strongly upward. China generated approximately 26.2% of net world growth, Viet Nam 23.4%, and India 13.7%; together, the current three largest exporters generated approximately 63.2% of the entire increase since 2006. Bangladesh contributed around 9.8% and Poland another 7.3%, while France, Tunisia, and Italy made negative contributions because their exports were lower in 2025 than in 2006.

The fifteen countries that ranked as the largest exporters in 2025 collectively generated about 91% of total net growth. Competitive expansion has therefore been distributed across a wider group of suppliers even though a relatively small set of countries continues to account for most of the market.

Recent performance reveals substantial movement beneath an almost flat global total. Between 2023 and 2025, Poland's exports increased by approximately 42.2%, India's by 7.8%, and Mexico's by around 10%, while Cambodia, immediately outside the fifteen leading exporters, expanded by approximately 65%. Viet Nam and Myanmar recorded reported increases of approximately 44% and 51%, respectively, although their 2025 figures are based on mirror data and should therefore be interpreted cautiously. In contrast, France declined by more than 40%, Tunisia by approximately 53%, the USA by almost 19%, and Türkiye by around 14.4%.

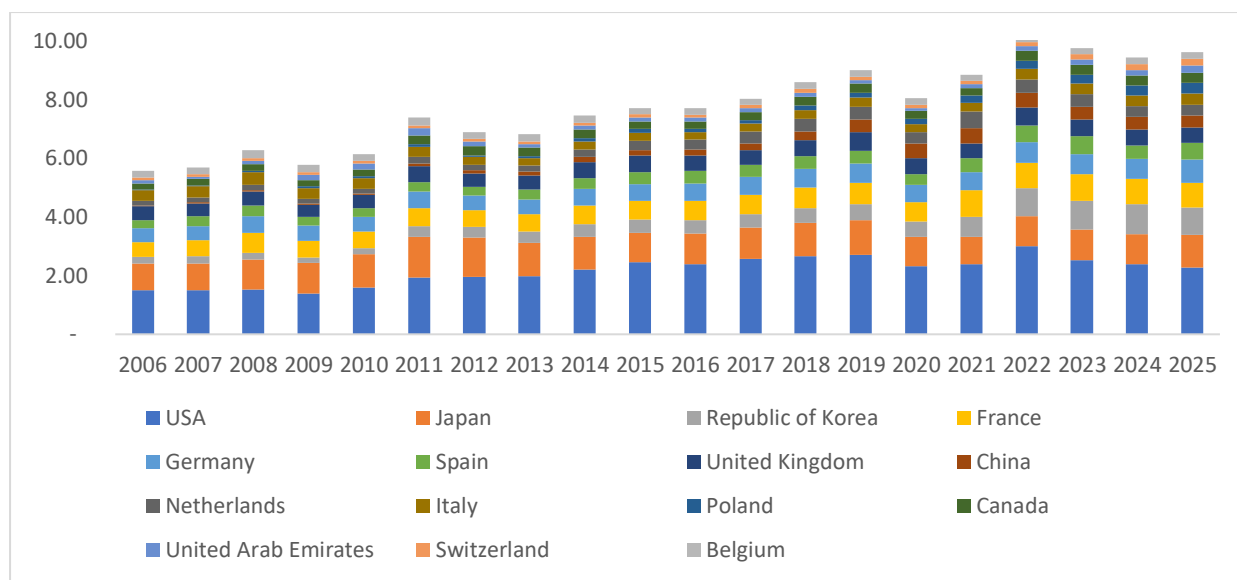
Tracksuits & Swimwear therefore show a broader competitive structure than many other woven garment categories. China remains the largest supplier, but Viet Nam, India, Bangladesh, Poland, and Myanmar have become increasingly important, while several former leaders have lost substantial ground.

Tracksuits & Swimwear: Demand Broadens Beyond the Traditional Leaders

The import market for Tracksuits & Swimwear (HS 6211) has become considerably more geographically diversified. The three largest markets accounted for approximately 40.0% of world imports in 2006 but only 32.6% in 2025, while the five largest declined from 52.6% to 44.9%. The countries that ranked among the fifteen

leading import markets in 2025 collectively accounted for 79.2% of world imports in 2006, compared with 72.5% in 2025. Recent growth has been subdued: imports were almost flat between 2023 and 2025, although the 2025 level remained only about 2.8% below the 2022 peak.

Table 36: Leading Importers of Tracksuits & Swimwear (US\$ billion)

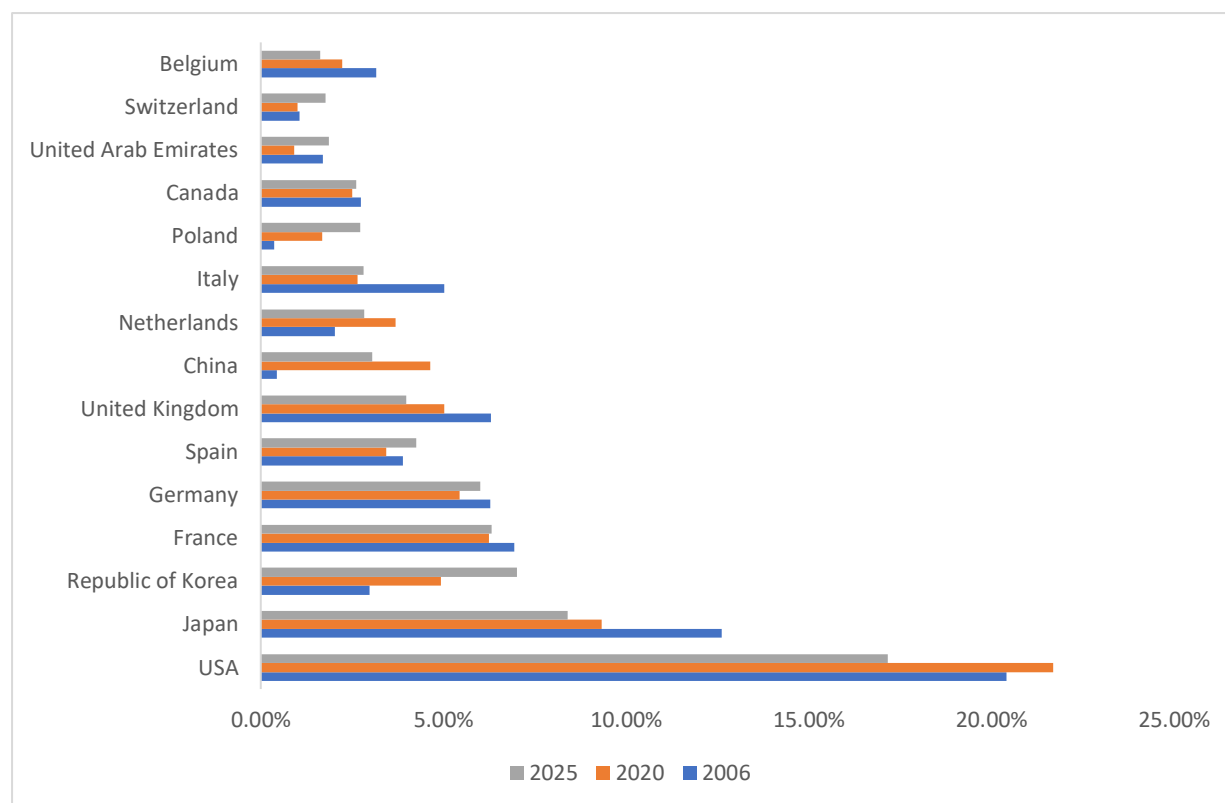


The USA remains the largest market, but its relative importance has declined. Imports increased from approximately US\$1.50 billion in 2006 to US\$2.28 billion in 2025, while its share fell from 20.4% to 17.2%. Japan remains second but experienced an even larger relative decline, with its share falling from 12.6% to 8.4% despite modest growth in absolute imports.

The Republic of Korea recorded the strongest structural transformation among the major markets. Imports increased from approximately US\$218 million to US\$931 million, its share rose from 3.0% to 7.0%, and its ranking improved from ninth to third. Germany maintained a broadly stable long-term share, while Spain strengthened structurally. The United Kingdom moved in the opposite direction, falling from fourth to seventh position as its share declined from 6.3% to 4.0%.

China advanced from 31st position in 2006 to eighth in 2025 as its share increased from 0.4% to 3.1%, although demand weakened more recently. The Netherlands also strengthened over the longer term, while Italy's imports were almost unchanged over nineteen years, causing its share to fall from 5.0% to 2.8%. Poland advanced from 35th to 11th position, with imports increasing from US\$27 million to approximately US\$363 million and its share rising from around 0.4% to 2.7%.

Table 36-1: Changing Shares of Leading Tracksuits & Swimwear Importers



The changing-share analysis confirms that the traditional demand hierarchy has weakened without being replaced by another dominant market. The USA and Japan remain first and second but have both lost substantial share, while the United Kingdom, Italy, and Belgium have also declined in relative importance. At the same time, the Republic of Korea, China, Poland, Switzerland, and several other medium-sized markets have strengthened.

Growth contribution further illustrates this diversification. The USA generated approximately 13.2% of net world import growth, the Republic of Korea 12.0%, China 6.3%, and Germany and Poland approximately 5.7% each. The current three largest markets—the USA, Japan, and the Republic of Korea—generated only around 28.3% of total net growth, while the fifteen leading import markets in 2025 accounted for approximately 68.1%. Almost 32% of additional global demand therefore came from markets outside this group.

Recent performance remains highly uneven despite the broadly flat global market. Between 2023 and 2025, Switzerland's imports increased by approximately 35.5%, Poland's by 26.8%, and Germany's by 16.3%. The United Arab Emirates recorded reported growth of approximately 42.6%, although its 2025 observation is based on mirror data and should therefore be interpreted cautiously. In contrast, the USA and United Kingdom each declined by approximately 9.4%, France by more than 8%, the Netherlands by around 11%, and China by about 6%.

Tracksuits & Swimwear therefore show a substantially broader demand structure than two decades ago. The USA and Japan remain the two largest destinations but have lost relative importance, while the Republic of Korea, China, Poland, and a wider group of medium-sized markets have gained.

At the Six-Digit Level: The Fiber Shift Becomes Unmistakable

The six-digit analysis provides a deeper view of structural change within woven garments by identifying the specific product and fiber combinations driving trade. The source contains 127 HS six-digit lines covering approximately US\$158.2 billion of exports in 2006 and US\$256.7 billion in 2025, capturing virtually the entire HS 62 product universe. On a comparable basis, exports increased by approximately 62.3% over the period, while the 2025 market remained only 0.6% below its historical record.

An important methodological adjustment is required. Changes introduced in the 2022 HS nomenclature consolidated several former coat and jacket classifications into new six-digit codes. Direct comparison of the raw codes would therefore create artificial product growth. The analysis accordingly combines predecessor codes into 111 continuity-adjusted product series, allowing genuine economic changes to be separated from classification changes.

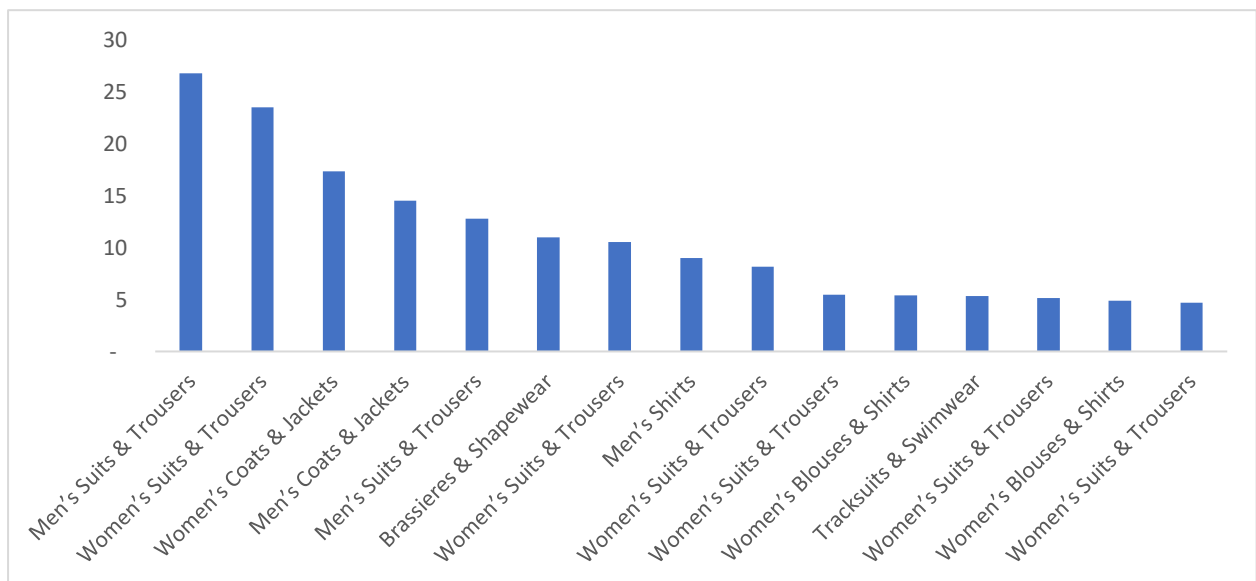
Table 37: Major Export Products in Woven Garments at the Six-Digit Level (US\$ billion)

HS4 Group	06	07	08	09	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25
Men's Suits & Trousers	18	19	21	19	21	24	24	25	28	26	25	26	26	26	21	25	27	25	25	27
Women's Suits & Trousers	18	19	19	17	18	20	21	22	23	21	21	21	21	21	17	22	23	21	22	23
Women's Coats & Jackets	5	5	7	6	7	10	9	11	13	11	11	13	14	14	12	15	16	16	16	17
Men's Coats & Jackets	4	5	5	5	6	8	8	9	10	9	9	10	12	12	10	13	14	14	13	15
Men's Suits & Trousers	4	4	5	4	4	5	5	5	7	6	6	7	8	8	7	9	11	10	11	13
Brassieres & Shapewear	8	8	9	7	8	9	9	9	11	10	10	11	11	10	9	12	12	11	11	11
Women's Suits & Trousers	4	4	4	3	3	3	3	4	5	5	5	6	6	6	6	7	9	9	9	11
Men's Shirts	8	10	10	9	10	12	12	12	13	12	12	11	11	11	8	8	10	9	9	9
Women's Suits & Trousers	2	2	3	3	4	5	5	6	8	7	7	7	8	8	7	8	9	9	9	8
Women's Suits & Trousers	4	4	4	3	3	3	3	3	3	4	4	4	4	5	4	4	5	5	5	5
Women's Blouses & Shirts	2	3	3	2	3	3	4	5	6	6	6	7	7	7	5	5	6	6	6	5

Tracksuits & Swimwear	2	2	2	2	2	2	2	3	4	4	4	4	5	5	4	5	6	5	5	5
Women's Suits & Trousers	2	2	3	3	3	4	3	3	3	3	3	3	3	4	4	5	6	5	5	5
Women's Blouses & Shirts	5	6	6	6	6	6	5	5	5	5	5	5	4	4	3	4	4	4	5	5
Women's Suits & Trousers	2	2	3	2	2	3	3	4	6	6	5	5	4	4	4	6	6	6	5	5

The two largest individual products remain Men's Cotton Trousers & Shorts and Women's Cotton Trousers & Shorts. Together, they accounted for approximately 22.7% of woven garment exports in 2006 and 19.6% in 2025. The fifteen product series that ranked highest in 2025 collectively represented approximately 58.0% of world exports in 2006 and 64.0% in 2025. The principal transformation has therefore occurred within the product and fiber hierarchy rather than through dependence on only a few individual products.

Table 37-1: Major Export Products in Woven Garments at the Six-Digit Level in 2025 (US\$ billion)



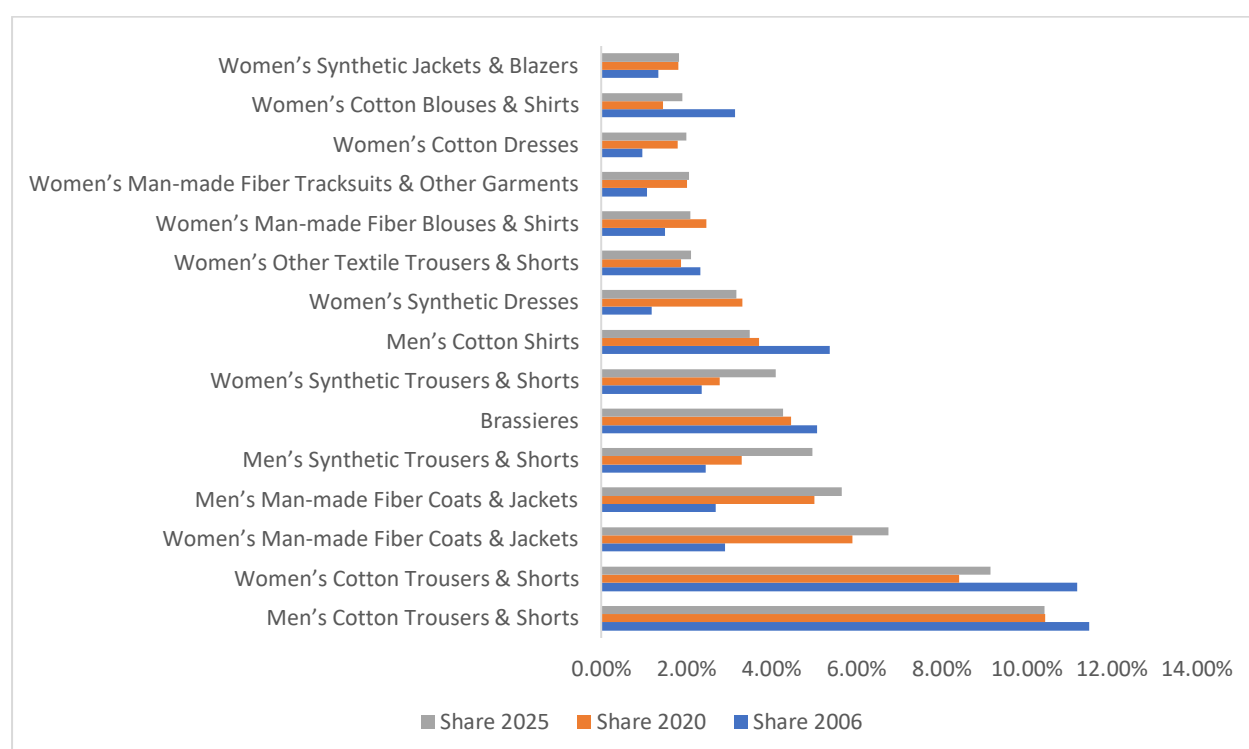
Cotton continues to occupy the two largest individual product markets. Men's Cotton Trousers & Shorts increased from approximately US\$18.15 billion in 2006 to US\$26.74 billion in 2025, while Women's Cotton Trousers & Shorts increased from US\$17.69 billion to US\$23.48 billion. Together, they still represent almost one-fifth of the entire woven garment market. Their shares nevertheless declined from 11.5% to 10.4% and from 11.2% to 9.1%, respectively, as competing fiber-product combinations expanded faster.

The most important structural gain occurred in man-made fiber outerwear. After adjusting for the HS classification change, Women's Man-made Fiber Coats & Jackets increased from approximately US\$4.61 billion

to US\$17.34 billion, raising their share from 2.9% to 6.8%. Men's Man-made Fiber Coats & Jackets increased from approximately US\$4.25 billion to US\$14.52 billion, with their share rising from 2.7% to 5.7%. Together, these two categories generated more than 23% of net growth in six-digit woven garment exports.

Synthetic trousers also expanded rapidly. Men's Synthetic Trousers & Shorts increased from approximately US\$3.89 billion to US\$12.76 billion, while Women's Synthetic Trousers & Shorts rose from approximately US\$3.73 billion to US\$10.53 billion. Cotton performance, however, was not uniformly weaker. Women's Cotton Dresses increased from approximately US\$1.52 billion to US\$5.15 billion and doubled their global share to around 2%.

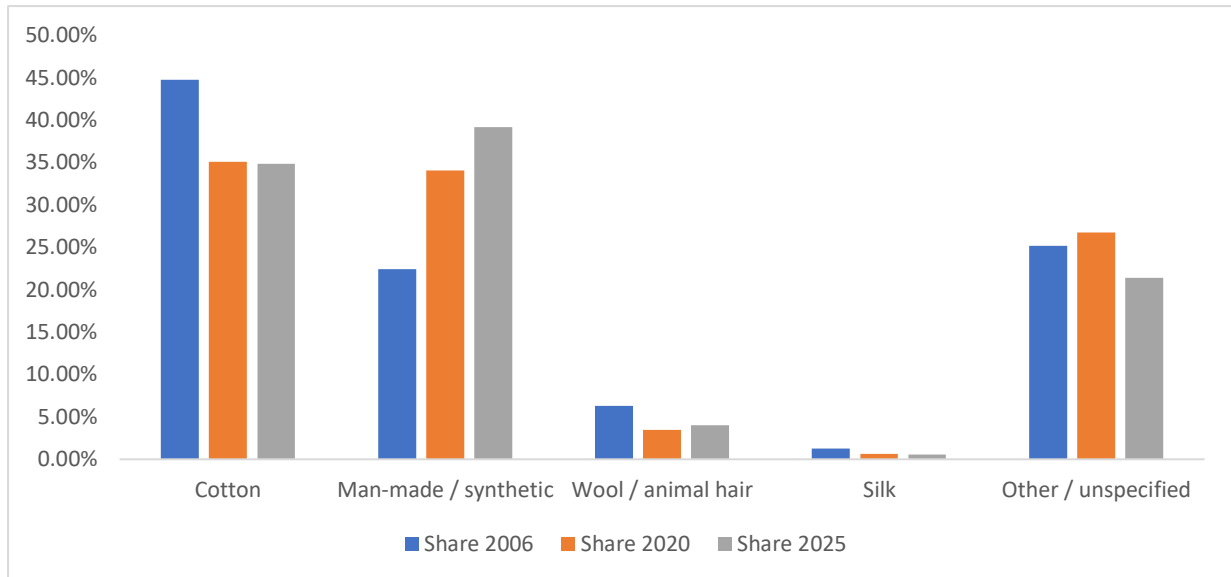
Table 37-2: Changing Shares of Leading Woven Garment Products at the Six-Digit Level



The changing-share comparison makes the fiber shift particularly clear. The two large cotton trouser categories remain first and second but have lost relative weight, while man-made fiber coats and jackets, synthetic trousers, synthetic dresses, and other man-made fiber categories have moved strongly upward.

The transformation is occurring within individual garment applications as well as across product categories. Cotton remains dominant in trousers in absolute value, but synthetic trousers have expanded much faster. The shift is even stronger in outerwear, where man-made fiber coats and jackets have become some of the largest individual product markets in world woven apparel.

Table 37-3: Fiber Shares in Woven Garments



The aggregate fiber analysis produces one of the strongest structural findings in the woven garment section. Cotton-based woven garment exports increased from approximately US\$70.84 billion in 2006 to US\$89.46 billion in 2025. Cotton therefore did not contract in absolute terms. Its market share, however, declined from 44.8% in 2006 to 35.1% in 2020 and 34.9% in 2025.

Man-made and synthetic fiber garments moved in the opposite direction. Their exports increased from approximately US\$35.42 billion in 2006 to US\$100.53 billion in 2025, while their share rose from 22.4% to 39.2%. They generated approximately 66% of all net growth in world woven garment exports and overtook cotton in absolute export value in 2021—a major structural turning point in the fiber composition of global woven apparel.

Table 37-4: Fiber Mix of Woven Garments (US\$ billion)

Fibers	Value 2006	Share 2006	Value 2020	Share 2020	Value 2023	Value 2025	Share 2025	CAGR 2006–2025
Cotton	70.84	44.80%	72.10	35.06%	84.70	89.46	34.85%	1.24%
Man-made / synthetic	35.42	22.39%	70.11	34.09%	96.32	100.53	39.16%	5.64%
Wool / animal hair	10.00	6.32%	7.15	3.48%	9.94	10.26	4.00%	0.14%
Silk	2.06	1.30%	1.25	0.61%	1.56	1.49	0.58%	-1.69%
Other / unspecified	39.82	25.18%	55.05	26.77%	53.57	54.95	21.41%	1.71%

The full comparison crystallizes the scale of the change. Cotton increased from US\$70.84 billion to US\$89.46 billion between 2006 and 2025, but its share declined from 44.80% to 34.85%, with a CAGR of 1.24%. Man-made

and synthetic garments increased from US\$35.42 billion to US\$100.53 billion, raising their share from 22.39% to 39.16% and recording a CAGR of 5.64%. Wool and animal hair remained close to US\$10 billion, while silk declined from US\$2.06 billion to US\$1.49 billion.

The contrast with knitted garments is especially revealing. Cotton still accounted for approximately 44.5% of knitted garment exports in 2025, compared with around 34.4% for man-made and synthetic fibers. In woven apparel, that relationship has already reversed: man-made and synthetic fibers represented approximately 39.2% of exports, compared with 34.9% for cotton. Cotton's competitive position is therefore materially stronger in knitted garments than in woven garments.

The six-digit evidence supports a more nuanced conclusion than a simple cotton-versus-synthetics narrative. Cotton remains an enormous and growing global business: Men's and Women's Cotton Trousers remain the two largest individual woven garment products, cotton dresses have strengthened substantially, and several cotton categories are showing renewed momentum. But man-made and synthetic woven garments have grown much faster, overtaken cotton in total export value, and captured most of the incremental growth of the market.

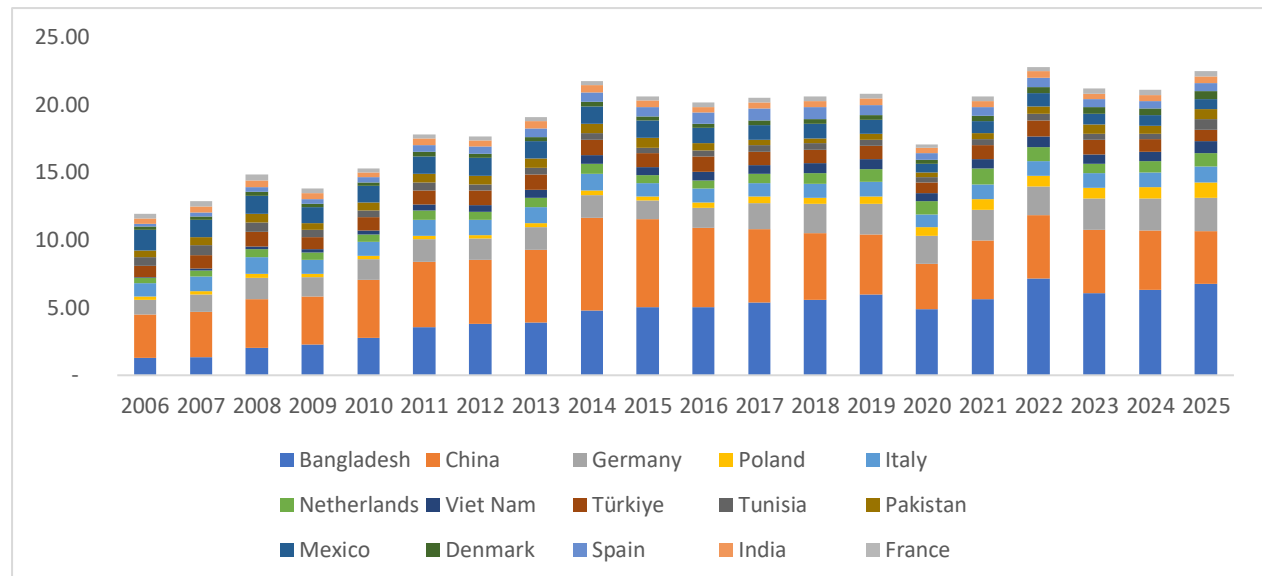
Cotton's challenge is therefore not absolute contraction, but relative competitiveness. The strategic question is why competing fibers are growing faster in major applications—and what enables some cotton product categories to retain or increase their competitiveness while others lose share.

Leading Exporting and Importing Countries for Major Woven Garment Products at the Six-Digit Level

Men's Cotton Trousers & Shorts: Bangladesh Redefines the Competitive Order

Men's Cotton Trousers & Shorts (HS 620342) remain the largest individual woven garment product at the six-digit level. Exports increased from approximately US\$18.2 billion in 2006 to US\$26.7 billion in 2025, an increase of about 47%, with a further 5.3% expansion between 2023 and 2025. The 2025 level nevertheless remained around 3.2% below the historical peak reached in 2014. The more important structural change has occurred in competitive geography, with the three largest exporters increasing their combined share from 33.2% in 2006 to 49.1% in 2025.

Table 38: Leading Exporters of Men's Cotton Trousers & Shorts (US\$ billion)



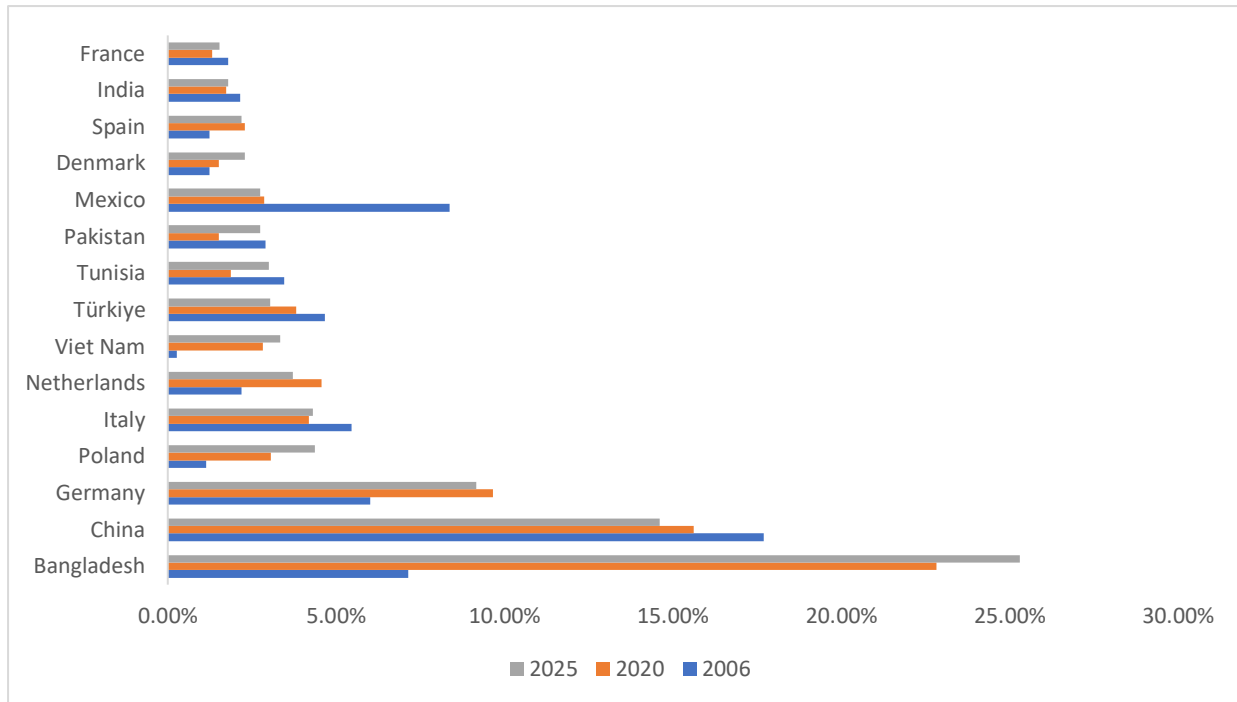
Bangladesh represents the defining transformation. Exports increased from approximately US\$1.30 billion in 2006 to US\$6.77 billion in 2025, its global share rose from 7.1% to 25.3%, and its ranking improved from third to first. Bangladesh generated approximately 63.7% of the entire net increase in world exports of Men's Cotton Trousers & Shorts.

China moved in the opposite direction. It was the largest exporter in 2006 with a 17.7% share but fell to second by 2025 as its share declined to 14.6%. Although exports remained above their 2006 level, they were approximately 43% below China's 2014 peak and declined by another 16% between 2023 and 2025.

Germany strengthened substantially, increasing exports from approximately US\$1.09 billion to US\$2.45 billion and its share from 6.0% to 9.2%, while advancing from fifth to third position. Poland moved from 23rd to fourth position, Viet Nam from 40th to seventh, and the Netherlands also strengthened. Italy remained important but lost relative share.

Several former leaders experienced substantial displacement. Mexico fell from second position and an 8.4% share in 2006 to 11th and 2.75% in 2025, with exports declining by more than half. Hong Kong, China fell from fourth to 26th position as exports contracted by approximately 88%, while Türkiye and Romania also lost significant competitive ground.

Table 38-1: Changing Shares of Leading Men's Cotton Trousers & Shorts Exporters



The changing-share comparison shows a decisive reordering of competitive leadership. A market once led by China, with Mexico and Hong Kong, China among the major suppliers, is now centered much more strongly on Bangladesh, Germany, Poland, and Viet Nam. Bangladesh alone accounts for more than one-quarter of world exports, while China remains large but has lost substantial momentum.

Growth contribution is even more concentrated than the market structure itself. Bangladesh generated approximately 63.7% of net global growth, Germany 15.8%, Poland 11.2%, Viet Nam 9.8%, China 8.0%, and the Netherlands around 7.0%. The current three largest exporters—Bangladesh, China, and Germany—generated approximately 87.6% of the entire net increase in world exports, reflecting strong gains among today's leaders alongside contractions among several former major suppliers.

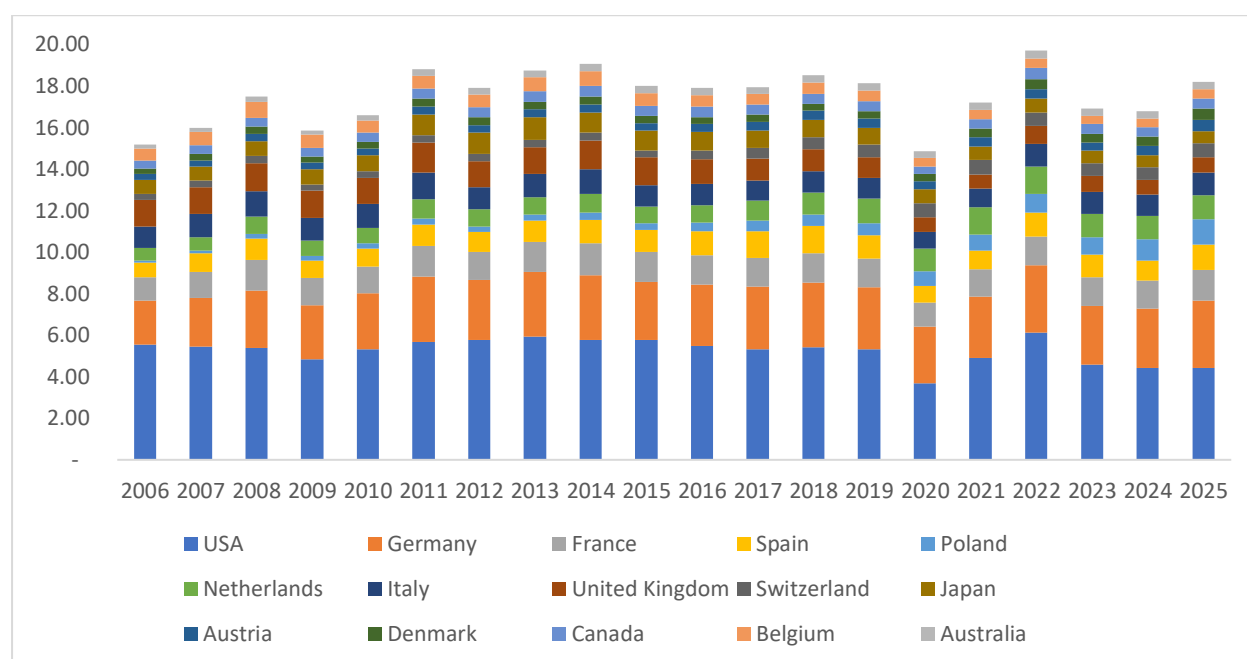
Recent performance indicates that restructuring is continuing. Between 2023 and 2025, Poland's exports increased by 52.3%, the Netherlands' by approximately 44%, Denmark's by 29.3%, and Pakistan's by 12.8%. Bangladesh also continued to expand, while Viet Nam recorded strong reported growth, although the 2025 observations for both countries are based on mirror data and should therefore be interpreted cautiously. By contrast, China declined by 16% and Türkiye by almost 24%. Tunisia's apparent 2025 surge also requires caution because the observation is based on mirror data.

Men's Cotton Trousers & Shorts therefore continue to demonstrate the enormous commercial scale of cotton, but the geography of competitive advantage has changed fundamentally. Bangladesh has moved into clear leadership, while Germany, Poland, and Viet Nam have strengthened and China has shifted from undisputed leader to second position.

Men's Cotton Trousers & Shorts: Demand Diversifies as Supply Concentrates

The import side of Men's Cotton Trousers & Shorts (HS 620342) presents a striking contrast with the exporter structure. Demand strengthened considerably after 2020 and continued to expand through 2025, although the market remained approximately 5.3% below its historical 2022 peak. The three largest importing markets accounted for approximately 47.7% of world demand in 2006 but only 37.4% in 2025. The countries that ranked among the fifteen leading import markets in 2025 collectively accounted for approximately 84.5% of world imports in 2006, compared with 74.6% in 2025, showing substantial expansion beyond the markets that lead today.

Table 39: Leading Importers of Men's Cotton Trousers & Shorts (US\$ billion)

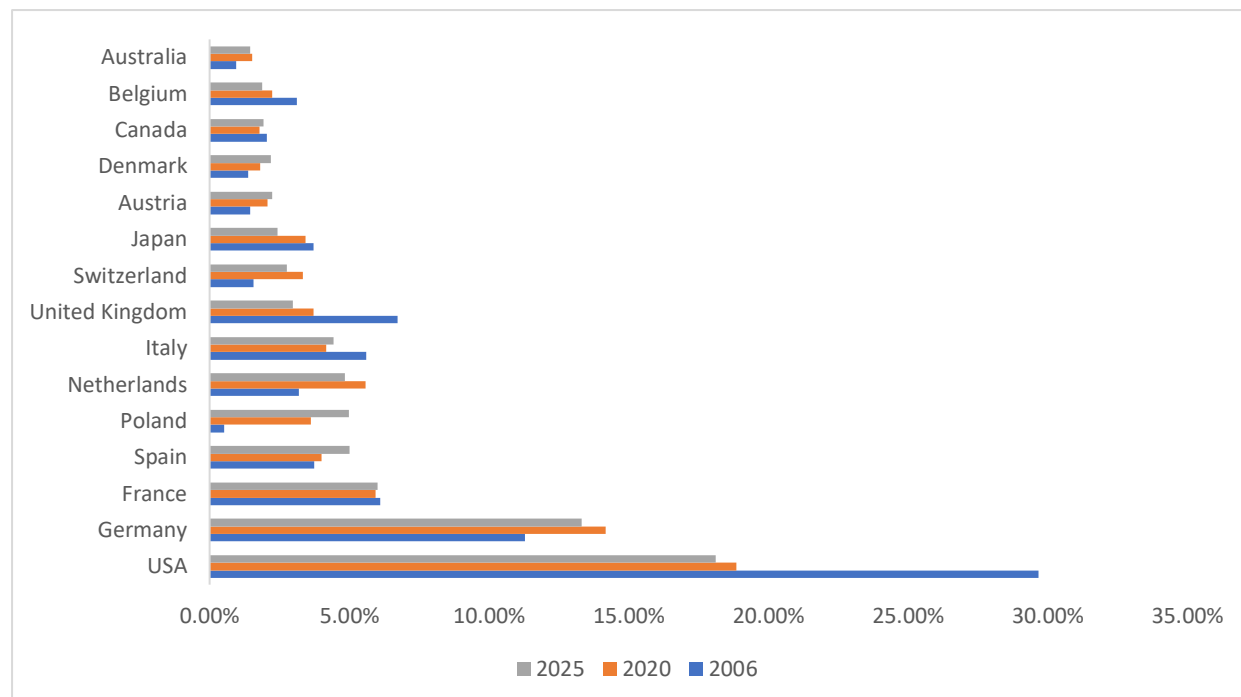


The USA remains the largest market, but its former dominance has been substantially reduced. Imports declined from approximately US\$5.55 billion in 2006 to US\$4.42 billion in 2025, while its global share fell from 29.7% to 18.1%, a decline of more than eleven percentage points. The USA also remains well below its historical peak and weakened again after 2023.

Germany has become the principal large-market growth engine. Imports increased from approximately US\$2.11 billion to US\$3.25 billion, while its share rose from 11.3% to 13.3%. Germany generated approximately 20% of net global demand growth and recorded a further 15.4% increase between 2023 and 2025. Spain also strengthened significantly, advancing from seventh to fourth position and raising its share from 3.8% to 5.0%.

Poland advanced from 27th to fifth position as imports increased from approximately US\$96 million to US\$1.22 billion and its share rose from 0.5% to almost 5.0%. The Netherlands also strengthened, moving from ninth to sixth position and increasing its share from 3.2% to 4.8%. In contrast, the United Kingdom fell from third to eighth position as its share declined from 6.7% to 3.0%, while Japan also lost relative importance.

Table 39-1: Changing Shares of Leading Men's Cotton Trousers & Shorts Importers



The changing-share comparison highlights a profound redistribution of purchasing power. The USA lost more than eleven percentage points of global share, while the United Kingdom, Japan, and Belgium also weakened. Their losses did not produce a new dominant replacement market; demand instead spread across Germany, Poland, Spain, the Netherlands, Switzerland, Austria, Denmark, and a wider group of destinations.

Growth contribution reinforces this diversification. Germany generated approximately 20.0% of net global growth, Poland 19.7%, the Netherlands 10.3%, Spain 9.2%, and Switzerland 6.7%, while France, Austria, and Denmark also contributed positively. By contrast, the USA made a negative contribution of approximately 19.9% to net growth. The current three largest markets—the USA, Germany, and France—generated only about 5.7% of total net world growth, while the fifteen leading import markets in 2025 accounted for approximately 53.3%. Almost 47% of all additional demand therefore came from markets outside this group.

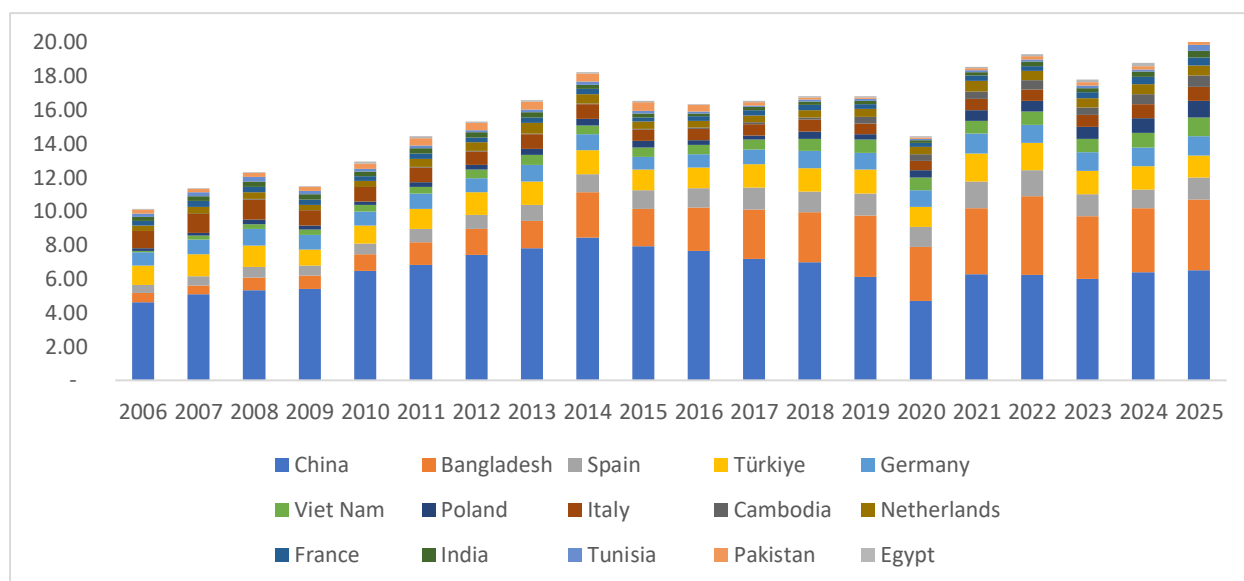
Recent performance suggests that the redistribution is continuing. Between 2023 and 2025, Poland's imports increased by 45.1%, Austria's by 40.6%, Denmark's by 30.7%, Germany's by 15.4%, Spain's by 15.2%, and Switzerland's by 10.3%. In contrast, the USA declined by approximately 3.9%, the United Kingdom by 3.7%, and Japan by 6.2%. Hong Kong, China recorded one of the strongest long-term declines, falling from sixth position in 2006 to 29th in 2025 as imports dropped from approximately US\$713 million to US\$160 million.

The contrast with export supply is particularly clear. The three largest exporters increased their combined share from approximately 33% to 49%, while the three largest import markets fell from approximately 48% to 37%. In 2025, the fifteen leading exporters accounted for approximately 84.2% of world exports, compared with 74.6% for the fifteen leading import markets. Men's Cotton Trousers & Shorts therefore show two opposite transformations: export leadership is concentrating, while global demand is becoming increasingly diversified.

Women's Cotton Trousers & Shorts: China Holds the Lead as a New Supplier Hierarchy Emerges

Women's Cotton Trousers & Shorts (HS 620462) remain one of the largest individual cotton garment markets in world trade. Exports increased from approximately US\$17.7 billion in 2006 to a record US\$23.5 billion in 2025, an increase of about 33%. Growth accelerated after 2020, rising by 20.2% through 2023 and a further 12.9% between 2023 and 2025. Concentration at the top also increased, with the three largest exporters raising their combined share from approximately 46.4% in 2006 to 51.2% in 2025.

Table 40: Leading Exporters of Women's Cotton Trousers & Shorts (US\$ billion)

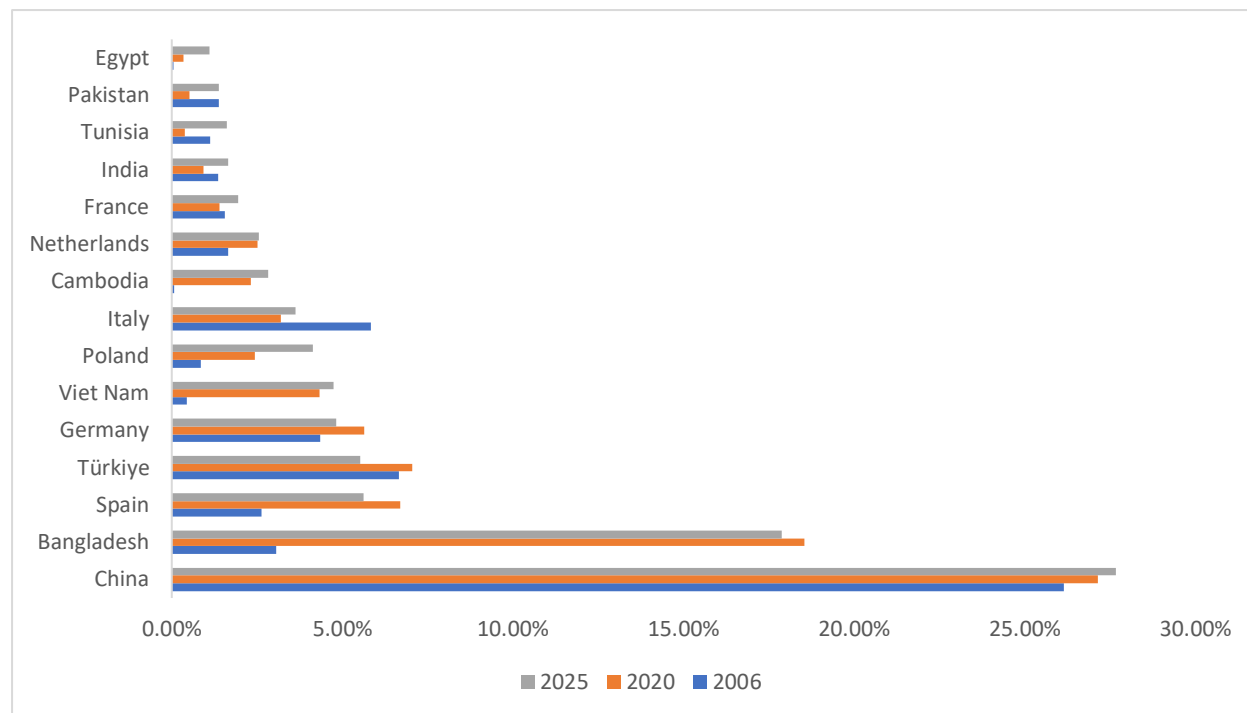


China remains the world's largest exporter and, unlike in many other garment categories, its global share has not declined. Exports increased from approximately US\$4.62 billion in 2006 to US\$6.50 billion in 2025, while its share edged upward from 26.1% to 27.7%. China nevertheless remains approximately 23% below its 2014 historical peak, indicating that its continued leadership has not been driven by rapid recent expansion.

Bangladesh recorded the largest structural gain. Exports increased from approximately US\$543 million in 2006 to US\$4.20 billion in 2025, while its share rose from 3.1% to 17.9% and its ranking improved from seventh to second. Bangladesh generated approximately 63% of the entire net increase in world exports. China and Bangladesh together accounted for approximately 45.6% of the global market in 2025, compared with only about 29.2% in 2006.

Spain also strengthened considerably, advancing from eighth to third position as its share more than doubled from 2.6% to 5.6%. Viet Nam moved from 29th to sixth position, Poland from 24th to seventh, and Cambodia from 60th to ninth. By contrast, Hong Kong, China fell from second position in 2006 to 21st in 2025 as exports declined by more than 93%, while Mexico dropped from fifth to 20th following an approximately 81% contraction.

Table 40-1: Changing Shares of Leading Women’s Cotton Trousers & Shorts Exporters



The changing-share analysis shows that competitive weight has shifted toward a substantially different group of suppliers. China remains firmly in first position, but Bangladesh has become its principal challenger. Behind them, Spain, Viet Nam, Poland, and Cambodia have strengthened substantially, while Hong Kong, China, Mexico, and several former suppliers have lost ground.

Growth contribution makes the scale of this redistribution particularly clear. Bangladesh generated approximately 63.2% of net world growth, China 32.3%, Viet Nam 17.8%, Spain 14.7%, Poland 14.2%, and Cambodia 11.3%. The current three largest exporters—China, Bangladesh, and Spain—generated approximately 110% of net global growth because substantial contractions among former exporters offset part of the expansion recorded by today’s leaders.

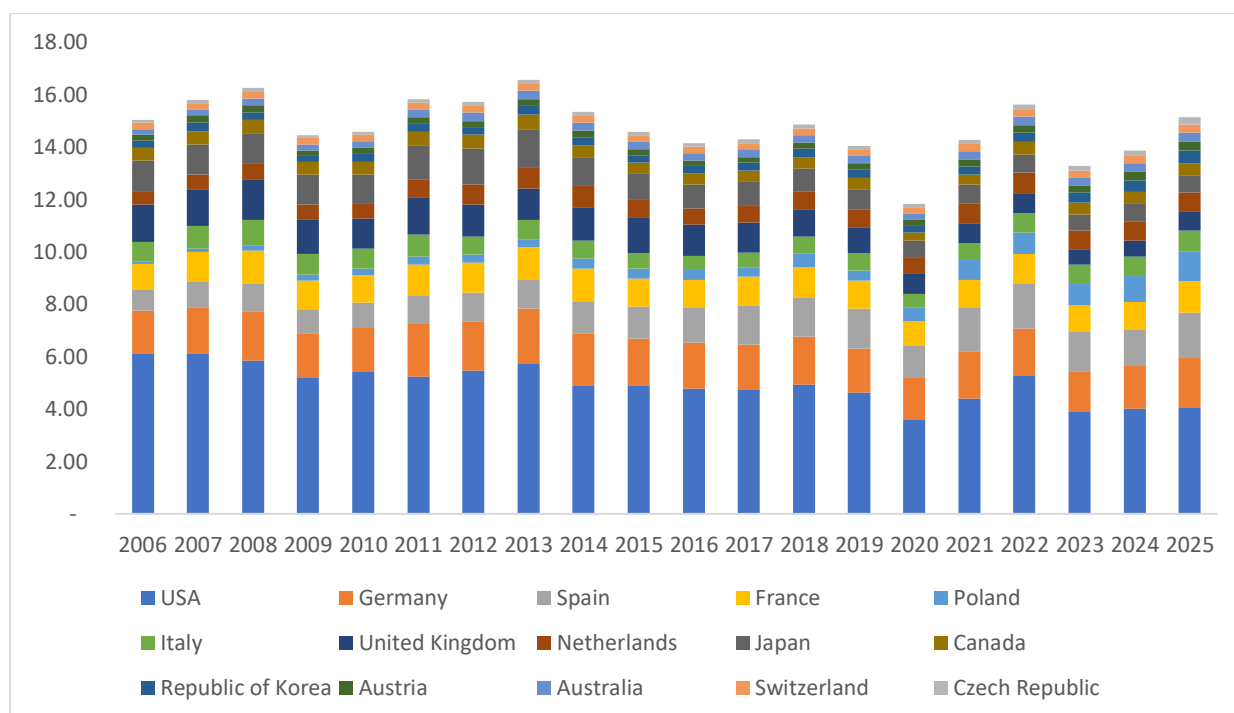
Recent performance shows that restructuring remains active. Between 2023 and 2025, Cambodia’s exports increased by approximately 57%, Poland’s by almost 38%, India’s by around 43%, France’s by nearly 29%, and Egypt’s by approximately 73%. Pakistan also recorded a strong 57% recovery, although its long-term global share remains broadly unchanged from 2006. Viet Nam and Bangladesh recorded reported growth of approximately 45.8% and 12.6%, respectively, but their 2025 observations are based on mirror data and should therefore be interpreted cautiously. Tunisia’s apparent surge also requires caution for the same reason.

Women’s Cotton Trousers & Shorts therefore combine record trade values with a major reordering of competitive strength. China retains leadership, but Bangladesh has emerged as a powerful second center of export supply, while Spain, Viet Nam, Poland, and Cambodia have become increasingly important.

Women's Cotton Trousers & Shorts: Geography Changes More Than Market Size

Women's Cotton Trousers & Shorts (HS 620462) present an unusually revealing demand-side story. Over the full period, the global import market expanded only modestly and remained approximately 7.2% below its 2013 historical peak in 2025. Yet recent demand recovered strongly, increasing by 15.2% between 2023 and 2025. The more important transformation has been geographical: the three largest importing markets accounted for approximately 46.6% of world demand in 2006 but only 37.3% in 2025. The countries that ranked among the fifteen leading import markets in 2025 collectively accounted for 85.6% of world imports in 2006, compared with 73.5% in 2025.

Table 41: Leading Importers of Women's Cotton Trousers & Shorts (US\$ billion)

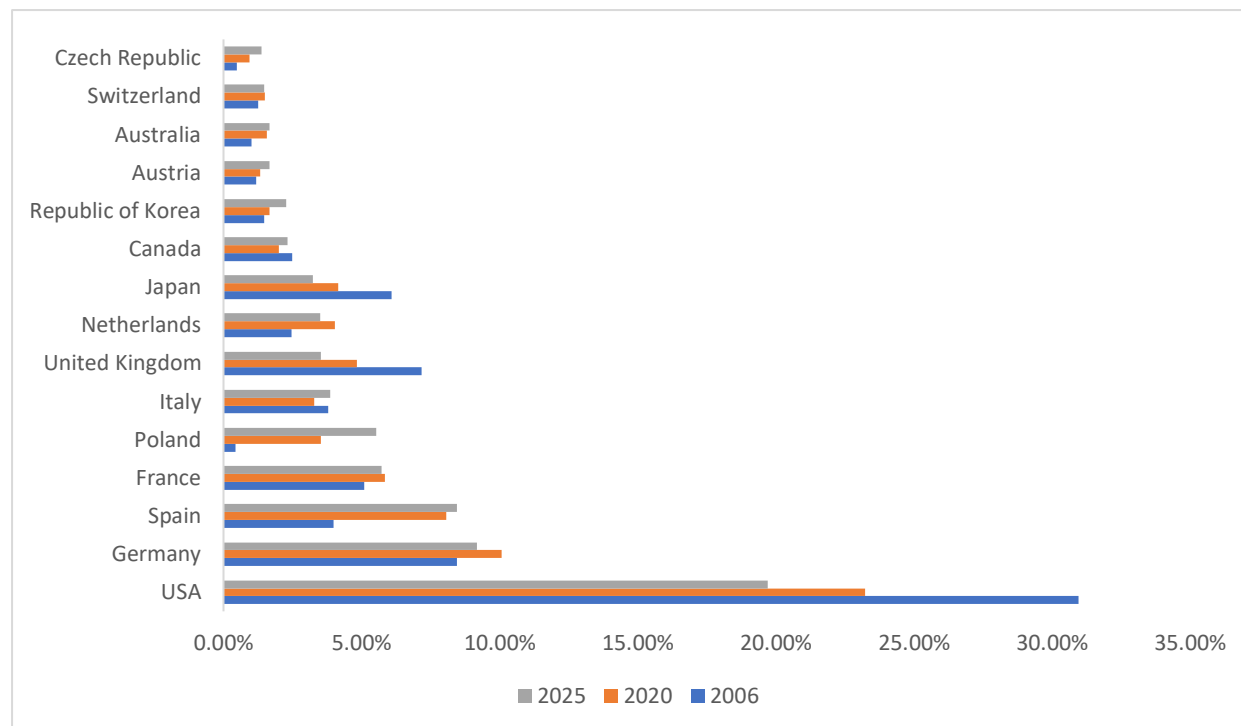


The USA remains the world's largest market, but its former dominance has been substantially reduced. Imports declined from approximately US\$6.10 billion in 2006 to US\$4.06 billion in 2025, a loss of more than US\$2 billion, while its global share fell from 31.0% to 19.7%. Germany remains the second-largest market, with its share edging upward from 8.5% to 9.2% and imports increasing by approximately 21% between 2023 and 2025.

Spain recorded one of the strongest structural gains. Its imports more than doubled, its share increased from 4.0% to 8.5%, and its ranking improved from seventh to third. Poland advanced from 28th to fifth position as imports increased from approximately US\$87 million to US\$1.14 billion and its share rose from 0.4% to 5.5%. Both Spain and Poland reached record import values in 2025.

The United Kingdom and Japan moved sharply in the opposite direction. UK imports declined from approximately US\$1.41 billion to US\$727 million, with its share falling from 7.2% to 3.5% and its ranking from third to seventh. Japan fell from fifth to ninth position as its share declined from 6.1% to 3.2%. The Netherlands and the Republic of Korea strengthened more gradually, while Austria, Australia, and the Czech Republic also gained importance.

Table 41-1: Changing Shares of Leading Women's Cotton Trousers & Shorts Importers



The changing-share analysis reveals a major redistribution of purchasing power. The USA, United Kingdom, and Japan lost substantial demand and market share, but these declines were not captured by a single replacement market. Growth instead spread across Spain, Poland, Germany, the Netherlands, the Republic of Korea, Austria, Australia, Switzerland, the Czech Republic, and numerous smaller destinations.

Because the overall market expanded only modestly, absolute changes provide a clearer picture than percentage contributions to net growth. Poland added approximately US\$1.05 billion of annual demand and Spain around US\$960 million, while the USA lost approximately US\$2.04 billion, the United Kingdom US\$685 million, and Japan US\$534 million. The structural story is therefore one of large-scale geographical substitution within a mature global market.

Recent performance suggests that diversification is continuing. Between 2023 and 2025, imports increased by approximately 59% in the Czech Republic, 44% in Austria, 40% in Poland, 21% in Germany, 18% in the Republic of Korea, 17.8% in Spain, and 15.6% in France. Hong Kong, China continued its long-term decline, falling from fourth position in 2006 to 26th in 2025 as imports contracted by approximately 89%.

The contrast between supply and demand is particularly striking. In 2025, the fifteen leading exporters accounted for approximately 87.1% of world exports, compared with 73.5% for the fifteen leading import markets. The three largest exporters controlled approximately 51.2% of supply, compared with only 37.3% for the three largest importing markets. Women's Cotton Trousers & Shorts therefore remain a very large global cotton market, but their demand geography has been fundamentally redistributed even as export supply has become increasingly concentrated.

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How to Manage Stickiness and Seed Coat Fragments in Cotton

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Executive Summary

In the prior edition of the Textiles Observer (May 2026), we briefly highlighted the incidence, detection, measurement, consequences, and reduction of contamination of cotton as related to that of foreign fiber. There are, however, other types of contamination such as stickiness and seed-coat fragments that need to be considered, as they can also have an adverse effect on processing performance and product quality.

Cotton Stickiness

Cotton stickiness, when it occurs, can present a major problem in terms of processing performance, cost, and product quality. Stickiness represents a serious contamination problem worldwide, as demonstrated by the biennial ITMF Cotton Contamination Survey compiled by spinners worldwide. A further global study showed that 64% of the participants rated stickiness as a major defect of cotton fibers that affect yarn properties. Because of a reputation for stickiness, some countries have difficulty selling their cotton, and incur discounts of up to 50% for their fiber. In fact, sticky cottons caused by honeydew contamination are at times almost impossible to process on their own into yarn of acceptable quality.

The incidence of stickiness varies considerably and is very much dependent on the growing conditions during the season as well as the farm practices employed specifically, the degree of nutrition in terms of farm hygiene, biosecurity, nitrogen fertilizer and late irrigation, timing of planting, and field selection, limiting availability of attractive crops. the integrated pest management practices adopted in terms of maintaining beneficial numbers, harvest aid chemicals for mechanical harvesting and variety selection. Furthermore, the costs for controlling stickiness in the field can be extremely high.

Causes of Stickiness

There are different causes of stickiness in cotton, with the most common and problematic being caused by excess sugars in insect secretions, most notably from aphids, whitefly, and mealy bugs. These insects ingest plant juices, extract proteins and other nutrients, and expel sugars and other carbohydrates that fall on leaves or lint after the boll has opened, leaving a sticky hygroscopic sugary deposit. This is referred to as honeydew, and it's responsible for some 80% to 90% of stickiness problems. In addition, a black sooty mold can also grow on honeydew, darkening the lint and adversely affecting grade.

Physiological or plant-related stickiness originates from highly immature cottons (≤ 3.4 micronaire) and plant sap, but also from crushed seeds, seed fragments, fine leaf particles, and excessive levels of cotton wax.

To a lesser extent, the presence of fungal and bacterial microorganisms, oil, grease, cotton seed oil, and agricultural chemicals can also result in issues with stickiness.

Effect of Stickiness on Processing

For processing, the main problem related to cotton stickiness is that the sticky deposit, or residue, adheres to any machine part or surface encountered by the cotton along the processing pipeline, causing an accumulation of fibers (and even dust or grit) during processing.

Harvesting

Cotton that is defoliated is less likely to harbor insects. Harvesting should be conducted timeously, as harvesting late leaves the cotton exposed to insect infestation. However, if infestation is suspected, it is recommended to leave cotton out in the weather for an extra week or two - particularly if this coincides with a rain event. In extreme cases, stickiness can affect harvesting with spindle type harvesters, as sticky deposits will accumulate and clog the spindles, causing blockages. To prevent blockages/stoppages during harvesting where stickiness has been identified, regularly clean heads, spindles, and doffers to remove sticky deposits.

Ginning

The ginning process can distribute and remove some of the sticky cotton during the lint cleaning stages, and hence the comparison between the level of sticky cotton in seed cotton and lint bales do not correlate. There are two types of cotton gins - saw gins and roller gins. Saw gins are used to process Upland-type cottons of short to medium staple length (< 25.4 mm to 31.0 mm). All extra-long staple (ELS) cottons (≥ 35.0 mm) are ginned on roller gins.

Roller-ginned cotton is adversely affected by moderate levels of stickiness while saw-ginned cotton is less sensitive to moderate levels of stickiness and is usually first detected in the textile mill. Roller gins are more susceptible to stickiness due to their design because the ginning process relies on friction, and a build-up of sticky spots on the ginning roller and the stationary knife will result in a decrease in ginning efficiency. Saw ginning does not rely on friction but on the mechanical pulling of fiber by saw teeth through two closely spaced ribs, and thus moderate levels of stickiness will not affect production rates. Nevertheless, sticky deposits can clog the saw gin and lint cleaners and disrupt the baling process due to accumulation of lint on the lint slide of the battery condenser (see Figure 1). This disruption can reduce gin production in bales/hour or even cease production completely.

Irrespective of the ginning method used, any disruption will result in more expensive ginning seasons due to higher labor costs, additional spare parts, and additional labor to monitor and clean machinery.



Figure 1 Sticky deposits clogging saws during ginning

Cotton Classification

Sticky deposits can also cause issues during cotton classification, with deposits on the cards, combs, and jaws used in High Volume Instruments, resulting in incorrect and inaccurate fiber measurements (see Figure 2).

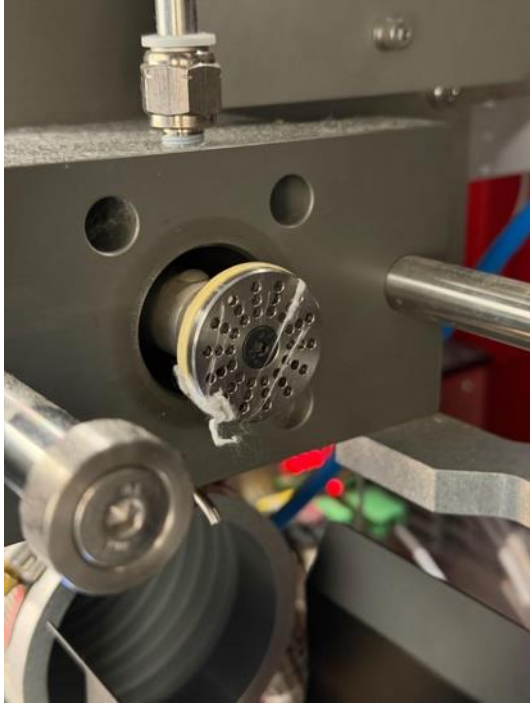


Figure 2 Sticky deposits causing issues during cotton classification

Textile Processing

Cotton with high incidence of stickiness will result in a gradual build-up of sticky deposits on processing machinery, which then disrupts and/or interferes with the smooth flow of the cotton during processing, leading to machine stoppages (notably spinning ends down) and/or poor-quality products, particularly yarn. Sticky cotton will be first noticed on the calendar rollers of a scutcher or carding machine and then during the drawing, roving, and spinning processes, where creel drives and more typically roller lapping is experienced (see Figures 3 & 4, below). This then disrupts, and/or interferes with, the smooth flow of the cotton during processing, leading to machine stoppages (notably spinning ends down) and/or poor-quality products, particularly yarn.



Figure 3 Sticky deposits during drawing

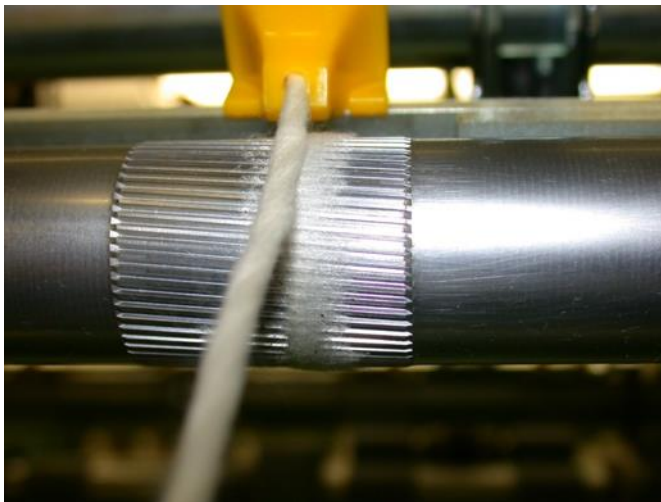


Figure 4 Sticky deposits during spinning

Unfortunately, although there are a range of test methods including chemical, thermo-chemical, mechanical, pH, and others, there is currently no recognized commercial standard method for measuring stickiness in cotton lint. Some of the more used/recognized test methods include high-performance liquid chromatography (HPLC), mini-card, Loepfe LabMaster Fibermap, and Mesdan Contest instruments.

Prevention and Treatment of Stickiness Problems

One of the major problems associated with the prevention and treatment of stickiness is that, due to its isolated and random nature, it is difficult to effectively detect sticky cottons, until the problem manifests itself during the processing of the cotton. Some remedial actions, when it comes to cotton stickiness, are listed below:

- Best to eliminate at source, i.e., during cotton growing (insect pest management)
- Minimize seed-coat fragments during ginning and ensure efficient cleaning during opening
- Avoid cottons with high levels of seed-coat (immature) fragments
- Avoid low micronaire (immature) cottons
- Opening and extended storage of bales (4 to 9 months), however this is not always practical and not feasible for most mills.
- Blend small proportions of sticky cottons with non-sticky cottons
- Process at lower humidity (< 50% RH) and temperature. This could, however, lead to problems with static and excessive fiber breakage during mechanical processing
- Reduce pressure on card crush rollers
- Tandem carding
- Regular cleaning of rollers and application of talcum powder (French Chalk)
- Coating rollers with iodine or another suitable substance

Seed-coat Fragments

It has been stated that practically all ginned lint contains seed-coat fragments (SCF), and that the main source is the chalazal end (see Figure 5), which is generally not fully developed or is structurally weak, with fibers in this area possibly immature due to varietal and environmental factors and torn off with a piece of seed instead of being broken off.

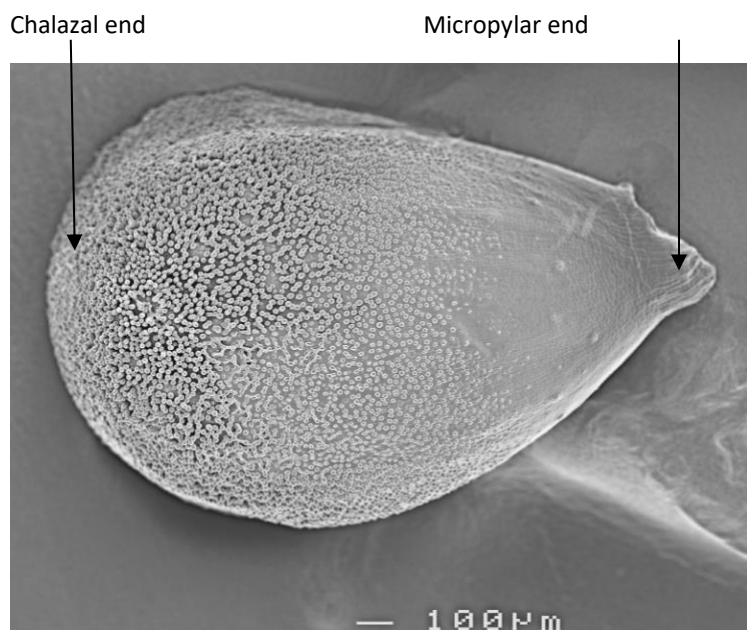


Figure 5 Cotton seed illustrating the position of the Chalazal end

The number of SCFs in ginned cotton can vary by as much as 50%, with studies showing that the major factors contributing to their occurrence were cotton variety, crop year, and timing of harvest. It has further been stated that SCFs are becoming a bigger issue due to increased seed-cotton cleaning during ginning and the fact that spinners require more uniform fiber that is free of foreign matter. Not only do SCFs cause spinning end

breakages, but they also cause a deterioration in yarn appearance and increase production costs because they are impossible to extract from the bulk of raw cotton except during the combing process, because of the tuft of fibers attached to the seed-coat. Hence, they are incorporated into the yarns as a nep (see Figure 6). SCFs appear as dark specks on the surface of dyed fabrics and are surrounded by immature fibers of lighter color, reducing the quality of the final product. It is for this reason that spinners dread SCFs, with the ITMF Contamination Surveys highlighting the fact that there is a perception amongst spinners that SCFs are a serious and increasing problem, with a recent study conducted worldwide showing that 58% of the participants rated SCFs as a major defect of cotton fibers that affect yarn properties. It has also been stated that cotton seed oil from SCFs can also be associated with stickiness problems encountered during processing.

As would be expected, rotor-spun yarns tend to be less affected by SCFs than ring-spun yarns, due to the fact that the opening roller of the rotor spinning machine removes a significant amount of trash and SCFs from the input sliver, prior to the formation of yarn, and also the fact that the structure of the rotor-spun yarn has the tendency to hide SCFs within the body of the yarn.



Figure 6 Image of SCF in lint and yarn.

There are two methods of assessing SCFs, either visually or by instrument. In terms of the visual method, cotton classers will call extraneous matter, which is identified as any substance present in the cotton besides fiber and leaf. Examples include bark, grass, dust, oil, and SCFs. These extraneous matters are classified according to the amount present in the sample and are identified as level 1 for light or level 2 for heavy. The code for identifying the incidences of SCFs is 31 for level 1 and 32 for level 2. There are several instruments on the market that can assess SCFs, including Uster® Technologies AG, Advanced Fiber Information System (AFIS), Premier Evolves Pvt. Ltd., aQura instrument, Loepfe LabMaster Fibermap, and Mesdan Contest.

All the methods referred to above are conducted offline, with samples collected and evaluated in a laboratory. Most of the major machinery manufacturers that produce carding machines provide in-line nep sensors to detect and record the number of neps and SCFs in the sliver.

The question that arises is, what SCFs levels does the textile industry accept or aspire to? Uster® Technologies classifies SCFs content in short- to medium-staple raw cotton lint, as measured on an AFIS instrument, as follows:

Table 1 *Classification of SCFs according to Uster® Technologies*

SCF/gram	Classification
<10	Very Low
11-20	Low
21-30	Medium
31-45	High
>46	Very High

Conclusion

As stated in this and the previous article in The Textiles Observer, the presence of contamination of any type in cotton can severely affect processing performance, utilization, product quality, and cost. In terms of stickiness, due to its isolated and random nature, it is difficult to detect until the problem manifests itself during processing. Depending on the severity, this cotton is difficult to process due to sticky deposits on machine parts and surfaces during processing, including harvesting, classification, ginning, and textiles.

Seed-coat fragments are difficult to remove because fibers are attached to them, causing deterioration in yarn appearance and increased production costs, as they are generally incorporated into the yarns and appear as dark specks on the surface of dyed fabrics. The major factors contributing to their occurrence are cotton variety, crop year, timing of harvest, and ginning.

There are a range of test methods for measuring both stickiness and seed-coat fragments, with several remedial actions proposed to reduce the effect on processing performance and product quality.

Disclosure Statement

Any trade names or commercial products mentioned in the publication are solely for the purpose of providing specific information and do not imply recommendation or endorsement by the author.

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