

The Eurasia Proceedings of Educational and Social Sciences (EPESS), 2026

Volume 48, Pages 14-24

IConMEB 2026: International Conference on Management Economics and Business

The U.S.-China Textile and Apparel Trade: A Trade Competitiveness Analysis for the Period 1992-2022

Fatih Mangir
Selcuk University

Metehan Ortakarpuz
Selcuk University

Abstract: This study looks at how the U.S. and China have interacted in the textile and apparel sector over a thirty-year period, from 1992 to 2022, and tries to make sense of the structure and nature of that relationship. Instead of focusing only on trade volumes, the paper uses three different tools “TCI (the trade complementarity index), ESI (the export similarity index) and Balassa’s RCA (revealed competitive advantage, RCA)” to see whether the two countries behave more like competitors or whether their trade tends to fit together in a complementary way. One of the evidences comes from the TCI results: China’s export profile in textiles and clothing lines up quite closely with import of the U.S., suggesting a relationship in which the U.S. mostly plays the role of import country and China the supplier. The ESI results, on the other hand, show that the two countries’ export structures are not very similar, especially in third markets, which implies that head-to-head competition between them is not particularly strong outside their bilateral trade. The policy implications that follow from these findings point in different directions for each country. On China’s side, the evidence shows that it holds a strong position in this sector and continues to meet much of the demand coming from the United States. At the same time, heavy dependency on the U.S. market also appears to carry certain risks. Diversifying its export destinations, rather than becoming overly dependent on a single large buyer, would help China protect itself against potential changes in U.S. demand or shifts in American trade policy. For the United States, the analyses revealed that the situation was almost the exact opposite. The persistent comparative disadvantage in textiles and apparel, combined with its low export similarity with China, suggests that competing directly with Chinese producers on cost or product range is unlikely to yield strong results. A more practical path for the U.S. would be to redirect its resources toward industries where it already holds stronger advantages, instead of trying to match China within a sector that has long been structurally unfavorable for American producers.

Keywords: The U.S. & China, Textile sector, Competitiveness, Complementary, Similarity index

Introduction

This paper analysis trade patterns of US and China economies using the Trade Complementarity Index (TCI), the Export Similarity Index (ESI), and the Revealed Comparative Advantage (RCA) index to provide the evidence about the competition level of textile and clothes sector. US–China trade relation plays a key role in the global trade network as one of the largest trade relationships worldwide. Given its size and strong interconnectedness with the global economy, the United States still the world’s largest economy contributes nearly one-quarter of global GDP (at market exchange rates), around one-fifth of global FDI flows, and more than one-third of worldwide stock market capitalization, so that any shift in its economic conditions is highly likely to transmit significant effects across the world (Stocker et.al., 2017). On the other hand, since joining the World Trade Organization in 2001, China has become a key player in world trade, with a strong advantage in labor-intensive and medium-technology products thanks to its low-cost and abundant labour, flexible production, government-supported infrastructure, and free trade zones. These features have attracted many

- This is an Open Access article distributed under the terms of the Creative Commons Attribution-Noncommercial 4.0 Unported License, permitting all non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

- Selection and peer-review under responsibility of the Organizing Committee of the Conference

© 2026 Published by ISRES Publishing: www.isres.org

multinational companies in sectors such as electronics, textiles, toys, and machinery, turning China into the hub of global supply chains and the “world’s factory” in global value chains.

Since the establishment of diplomatic relations between China and the United States, bilateral trade and investment ties have expanded significantly, generating substantial gains for both sides based on economic complementarity and mutual benefit (China Scio, 2025). By 2024, according to data from the Congressional Research Service and the U.S. Bureau of Economic Analysis, China had risen to fourth place among the countries with which the United States traded goods. The European Union led the ranking, followed by Mexico and Canada. At the same time, China remained a significant market of U.S. export items, particularly aircraft, agricultural products, semiconductors, chips, gas turbines, and medical products. Furthermore, it continued to provide critical support to the U.S. in essential components of global supply chains, such as consumer goods, rare earth elements, and active pharmaceutical ingredients (ITA, 2025).

China’s textile industry, the world’s largest with textile export value reaching about \$265 billion and cotton exports of over 8 million metric tons annually, maintains its global competitive edge through advanced supply chains, affordable labor, e-commerce platforms like Temu that boost access for international buyers, and strong capabilities not only in cotton textiles but also in synthetic fibers such as polyester and viscos (Royal Europe Textile, 2025).

Over the past several decades, textile and apparel manufacturing in the U.S. has declined significantly due to factors such as automation, rising import competition, and shifts in the country’s comparative advantage. Nevertheless, thanks to firms’ ongoing restructuring efforts and strategic use of globalization, the sector has remained relatively stable in recent years. For instance, the value of U.S. yarn and fabric manufacturing (NAICS 313) reached \$24 billion in 2023, up from \$23.3 billion in 2018 (an increase of about 2.8%). Over the same period, U.S. production of made-up textiles (NAICS 314) and apparel (NAICS 315) fell only modestly, by 1.8% and 1.6%, respectively (Lu, 2025).

Competition between China and the United States in the textile and apparel sector is primarily shaped by the import pressure created in the U.S. market by China’s rapid expansion in production and export capacity, reinforced after China’s WTO accession through quota removal and reduced trade policy uncertainty—so that, during the “China shock,” textiles became one of the U.S. manufacturing industries most exposed to import competition, and the relationship is best understood not as a symmetric production rivalry but as a structural contrast between China’s supply-side competitiveness and the United States’ position in final demand and end markets, typically assessed via China’s share in U.S. imports and market-share contestation in similar products across third-country markets (Caliendo & Parro, 2022, pp. 9–12).

The close relationship between the US and China in the textile and apparel sectors is, in fact, two sides of the same coin. This is because neither China’s obvious power in supply and production in this area, nor its enormous market size, can easily be replaced by other countries. At the same time, considering the enormous import demand for textiles and apparel products, there is no other large international market comparable to the US (Maosheng et al., 2022, p.152).

This study aims to examine the export performance and competitiveness of China and the United States, focusing specifically on the textiles and apparel industries, by applying the TCI, ESI, and RCA index together. The rest of the paper is structured as follows. The next section discusses the literature studies of export performance and structure.

Literature Review

Research dealing with how countries structure their trade relations and how certain products or sectors position them vis-à-vis others has become noticeably more common in recent years. Instead of focusing only on trade volumes, many of these studies look at how similar or complementary national export profiles are, often using indicators such as TCI, ESI or RCA as reference points. These measures help researchers make sense of whether two economies tend to compete in the same product groups or whether their export structures naturally fit together. Work carried out on various regional blocks, bilateral partnerships or specific industries usually arrive at quite different conclusions, since each geography shows its own trade patterns and shifts over time. The studies summarized in Table 1 illustrate this diversity and provide the background needed to frame the present research. Rather than offering a single unified picture, they show how competition and complementarity may appear in distinct ways depending on the countries or product groups examined.

Table.1. List of literature

Author	Scope	Purpose	Research Method	Findings and Conclusion
Gulzar (2011)	Pakistan's services trade structure and liberalization potential	To examine Pakistan's performance in trade in services and propose a strategic framework for liberalization	1981–2010 data; RCA, TCI, trade intensity, bias indices; two-stage gravity model	It has been concluded that Pakistan has not fully utilized its potential in many service areas, its trade performance with some countries remains low, and liberalization will increase growth, productivity and service exports.
Peng and Wang (2013)	The International Competitiveness of the Chinese Vegetable Industry	Assessing the Price, Quality, and Volume-Based Competition Level in the Chinese Vegetable Industry	Multidimensional Competition Indicators: Production Capacity vs. Market Share Comparisons	Although China is a leader in production, its competitiveness remains low; quality and technology deficiencies weaken the sector; production volume does not necessarily translate into competitiveness.
Hoang (2018)	Agricultural trade structure, intra-regional competition, and harmonization among ASEAN countries	Assessing the level of complementarity in agricultural trade within ASEAN	TCI, ESI; 1997–2015 trade comparison	Strong complementarity in agricultural products; increased competition in some sub-sectors; conclusion reached that regional integration will increase trade harmonization and require a common strategy.
Maryam, et al. (2018)	Trade intensity and competition structure between BRICS countries and the EU	Assessing BRICS trade relations and comparative advantages in the EU market	Data for the period 2001–2015; Trade Intensity Index, Balassa RCA, export similarity index	It has been determined that there are high trade flows among the BRICS, that Brazil and Russia are strong in natural resource products, and China and India in manufactured goods, and that China and India experience intense competition in the EU market.
Wani et al. (2020)	Sectoral trade structure, competition and complementarity relations between India and Russia,	To determine the sectors in which bilateral trade is competitive and in which sectors it is complementary	TCI, ESI, trade intensity indicators; sector comparison after 1997	High complementarity in agriculture and raw materials, limited competition in industrial products were found; the trade structure of the two countries is largely complementary to each other and the potential for cooperation is strong.
Liu et al. (2020)	Agricultural trade in Belt and Road countries; competition-complementarity network structure	Network-based analysis of the competition and complementarity relationships of agricultural products	TCI, ESI, dynamic network analysis; 2005–2016 period	Competition and complementarity have increased simultaneously; China is the network leader; South and Southeast Asian countries are integrated into complementarity networks; structural change necessitates a joint strategy.
Adigwe (2021)	Sectoral Export Competition in EU Countries	Examining the EU's Competition Structure Between 2009 and 2018	RCA Analysis; 20 Product Groups	Strong competition in manufacturing and technology products; weak performance in agricultural and low-technology products; Germany and France stand

Tao (2022)	China-Thailand Agricultural Trade and Product-Based Competition	Analyzing Mutual Specialization in Agricultural Products Between the Two Countries	RCA, TCI, Trade Intensity; 2017–2019 Data	out. Thailand is strong in fresh produce, while China has an advantage in processed agricultural products; it is stated that sectoral specialization will increase trade; technology and production structure are shown to be decisive in agriculture.
Zinchenko and Radionova (2023)	Uzbekistan–EAEU Trade Structure, Liberalization Effects	Measuring the Structural Effects of Trade Liberalization	RCA, TCI, ESI, RO Indicators	Reducing negative barriers will increase Uzbekistan's exports; competitive pressure in third countries is low; complementarity is strong; and harmonization expands trade.
Shahzad and Xiaoyin (2023)	China's sectoral trade relations with Europe and Central Asia	Analyze the integration, comparative advantage and complementarity between China and regional countries	2000–2019 period; RCA, TCI, Trade Complementarity Degree (TCD); data analysis in 20 sectors	It was concluded that there is strong complementarity in 17 of the 20 sectors, that there is low compatibility in some sectors such as vegetables and fuel; that China has a clear advantage in all sectors; and that trade integration is strong but interdependence is limited.
Aktaş Çimen et al. (2024)	Turkey's Global Tourism Exports and Competitiveness	Measuring Turkey's Competitive Advantage in Tourism and Comparing Its Structure with Similar Countries	RXA and ESI; 2010–2023	Turkey has a moderate advantage; competition with similar countries is high; ESI has decreased over time; diversification can strengthen competitiveness.
Vidya (2025)	ASEAN Trade Network Structure, Competition Networks, and Vulnerability	Examining the supply chain linkages and competitive positions of ASEAN countries over time	TCI, ESI, network analysis; trade network with 110 countries	High complementarity in electronics and energy; Singapore, Malaysia, and Thailand are at the center of the network; vulnerability has increased post-pandemic; diversification increases resilience.

Gulzar (2011) study approaches Pakistan’s services sector almost like someone trying to make sense of a long and uneven story. Over nearly three decades, he traces how services slowly carved out a larger share in the country’s economy, using numbers that run from the early 1980s through 2010. He looked at what Pakistan sold and bought in services, how it interacted with twenty-six partners, and used a mix of RCA, TCI and several bias measures to get a clearer view of the structure behind the flows. What he finds is a sector that seems bigger on paper than in performance, held back mostly by regulation that limits how far it can stretch. His gravity-based checks show that Pakistan trades less with some partners than it should. The takeaway is fairly clear: if the country eased some of these restrictions, the services sector could play a much more active role in growth and employment.

Peng and Wang (2013) dealt with China’s vegetable industry in a way that feels almost like they wanted to correct a common misunderstanding. China grows more vegetables than anyone else, but that doesn’t mean it is competitive. So they looked at price behavior, quality, production capacity and market share, and the results showed that big volume does not automatically translate into strength. The weaknesses are mostly in quality and

technological gaps, and the authors suggest that without a serious move toward upgrading, this sector will continue to lag despite its impressive scale.

Hoang's 2018 analysis of ASEAN agricultural trade is built around a fairly simple question: do these countries compete or complement one another? He examines almost twenty years of trade data and uses TCI and ESI to compare the shapes of their export baskets. What emerges is mostly complementarity, not rivalry, although in a few subsectors' competition has become more visible. As several ASEAN economies diversified production, the region's trade flows started to line up more smoothly. Hoang concludes that coordinated strategies might strengthen ASEAN's collective presence in global agricultural markets.

Maryam, Banday and Mittal's 2018 paper on BRICS feels broader in scope. They examined how the five countries relate to one another and to the wider world by tracking trade intensity, comparative advantage, and export similarities from 2001 to 2015. The picture that emerges is mixed: strong internal trade, especially involving China, India and Russia, but also notable rivalry, particularly between China and India in the EU market. Brazil and Russia hold ground in resource-based goods, while China and India dominate manufacturing. Their point is that BRICS is not a uniform group; cooperation could help them, but structural differences mean competition will always coexist.

Liu et al. (2020) took a different route entirely, using a network approach to examine agricultural trade under the Belt and Road Initiative. Instead of focusing on pairs of countries, they looked at how all the links fit together from 2005 to 2016. Both complementarity and competition increased, and the entire network became denser. China moved toward the center for several product categories, while countries across the Middle East and South and Southeast Asia grew more integrated into complementary trade clusters. They argue that shifts in these network patterns provide hints about where regional partnerships might evolve next.

Wani and his team, also in 2020, examined India–Russia trade after 1997 and approached it with a combination of TCI, ESI and trade-intensity tools. Much of what they found leans toward complementarity: India shows strengths in certain agricultural goods, Russia in energy and metals. Industrial goods overlap but not dramatically. Their overall conclusion is that cooperation rather than competition is the more natural shape of the relationship, and that the countries could expand their trade ties significantly if they built on these complementarities.

In 2021, Adigwe turned to Europe and measured how competitive different EU product groups were using RCA. Covering twenty-seven members and twenty categories, he found strong competitiveness in manufacturing, capital goods and consumer goods, while agriculture and low-tech products seemed weaker. Germany and France consistently performed well. His broader point is that the EU relies heavily on technologically intensive sectors, but should still maintain diverse export structures, especially in uncertain economic periods.

Tao's 2022 study focuses on a very short window—just 2017 to 2019—but uses that narrow slice to show how agricultural specialization differs between China and Thailand. Using RCA, TCI and intensity measures, he found Thailand holds clear advantages in several fresh agricultural products, while China is stronger in processed items. He suggests that if each country leans into its strengths, total trade could expand. Coordinated strategies, he notes, might benefit both sides.

Shahzad and Xiaoyin (2023) examined China's sectoral trade relations with Europe and Central Asia. The study analyzed integration, comparative advantage, and trade complementarity between China and the countries in the region over the period 2000–2019. Using the RCA, TCI, and Trade Complementarity Degree (TCD) indicators, data were analyzed for 20 sectors; the results show that there is strong complementarity in 17 of these sectors, while low compatibility is observed in some areas such as vegetables and fuels. The study also concludes that China holds a clear advantage in all sectors and that, although trade integration is strong, mutual interdependence remains limited.

Also in 2023, Zinchenko and Radionova examined Uzbekistan's relationship with the Eurasian Economic Union. They combined RCA, TCI, ESI and regional metrics to evaluate what reducing trade barriers might mean in practice. Their findings suggest that easing non-tariff barriers could considerably expand Uzbekistan's exports, and that the country does not face serious competition from EAEU members in third-country markets. Aligning technical standards and regulatory frameworks, they argue, could open much more room for bilateral trade.

Aktaş and colleagues in 2024 looked at Turkey's place in global tourism using RCA and ESI across more than a decade of data. Compared with nearly forty similar destinations, Turkey holds a competitive advantage, though not an overwhelming one. Despite strong tourism revenues, competition has intensified with countries offering similar experiences. ESI values declining over time indicate that Turkey's similarity to peer destinations has weakened. The authors suggest that expanding product diversity and improving service quality could help reinforce Turkey's position, especially given tourism's importance for the national trade balance.

Vidya's 2025 study circles back to ASEAN but does so with a much larger pool of information than earlier work in the area. Looking at trade links with 110 different countries between 2010 and 2023, the study pieces together how the region's commercial ties shift over time, using TCI, ESI and several network-oriented tools. What comes through most clearly is that electronics and energy tend to create strong complementarities across the region, while countries like Singapore, Malaysia and Thailand naturally fall into more central positions in the overall web of exchanges. The disruptions during the pandemic exposed how dependent some industries were on narrow supply chains, something the analysis makes quite visible. Instead of framing a prescriptive policy, Vidya simply notes that ASEAN's long-term stability probably depends on spreading its risks—more varied products, more varied markets, and fewer points of fragility.

Method and Empirical Results

Beyond just exchanging goods and services, trade flows between economies influence employment distribution, production structures, and the process of technological advancement. In turn, international trade policies and competition are significant sources of economic efficiency (Motta, 2021:169). This study provides basic trade structure between the United States and China, assessing the extent to which their trade patterns are compatible, similar and rivarly based on textile sector. Within this framework, it employs the TCI, ESI and RCA indicator. TCI holds significant value as how exporting and importing countries match based on trade patterns, particularly within the context of interregional trade dynamics. It also allows countries considering a regional trade agreement to compare their proposal with the agreements that other countries have already formed or attempted to form (WITS, 2025).

The definition of the TC between nations k and j is:

$$TCI_j = 100 (1 - \sum (|m_{ik} - x_{ij}| / 2)) \quad (1)$$

where m_{ik} is the percentage of good i in all imports from country k and x_{ij} is the percentage of good i in nation j 's worldwide exports. The index takes the value 100 when sectoral shares are exactly the same, and 0 when they are completely opposite (WTO, 2025:30).

On the other hand, ESI is an indicator used to measure the extent to which the export structures of two countries resemble each other in export. The index also makes it possible to follow how the degree of export similarity between countries evolves over time (Finger & Kreinin, 1979; Vlasenko, 2021, p. 4).

The formula for calculating the Export Similarity Index is as follows (Finger & Kreinin, 1979):

$$XS_{jk} = 100i \sum \min(X_{jk}, X_{ik}) \quad (2)$$

If the index value is 100, it indicates that the countries' exports are similar, whereas a value of 0 shows that they are completely different.

An increase in the export similarity index indicates that the export structures of the countries are becoming more similar and that competition between them in third markets is likely to become stronger (Vidya, 2024:10). On the other hand, relatively low index refers to declining trade competitiveness and so their trade partnership potential is very high.

Finally, to measure the competitiveness between the two countries, we will use the Balassa's index of RCA index. For a given product i , country A is considered to possess a revealed comparative advantage when the share of that product in its total exports exceeds the corresponding share of that product in world exports (UNCTAD, 2025).

$$RCA_{ij} = (X_{ij} / X_{it}) / (W_{iw} / W_{tw}) \quad (3)$$

where X_{ij} refers to the export value of product i from country j , and X_{ij} is the total exports of country j . Likewise, W_{iw} represents total world exports of product i , and W_{tw} is total world exports of all products.

Trade Complementarity Index (TCI):

The results of the calculated TCI for respectively China/USA and then USA/China from 1992 to 2022 are expressed in the Table.2.

Table 2. Trade complementarity index China/USA (1992-2022)

Years	USA-China	China-USA
1992	0,872419	0,982467
1993	0,638558	0,996513
1994	0,880264	0,988759
1995	0,898523	0,985515
1996	0,898813	0,983286
1997	0,896663	0,981781
1998	0,916583	0,991934
1999	0,926465	0,999564
2000	0,927310	0,995686
2001	0,934572	0,995977
2002	0,930320	0,986362
2003	0,510630	0,978240
2004	0,508240	0,978379
2005	0,504939	0,976877
2006	0,937702	0,982608
2007	0,938395	0,980693
2008	0,940504	0,980103
2009	0,504904	0,977830
2010	0,514780	0,989406
2011	0,499849	0,539346
2012	0,475904	0,508602
2013	0,960037	0,998129
2014	0,961357	0,998906
2015	0,474047	0,508312
2016	0,473045	0,508150
2017	0,966792	0,999948
2018	0,969175	0,999834
2019	0,523546	0,552286
2020	0,969599	0,999425
2021	0,976156	0,999665
2022	0,975239	0,998147

The calculated complementarity index for the US and China has been high over the period under consideration, except for some years. The index mostly takes values around 0.90, indicating that China's export structure closely matches US import demand. Although the US index shows different periods where complementarity falls to around 0.5, it also reaches values above 0.9 in several years, signaling duration of strong matching between US textile and clothing exports and China's import pattern.

Overall, these values point to a good degree of trade complementarity in the textile and clothes sector between the two countries, suggesting that both China and the USA could benefit from further expanding their bilateral trade in these products. Next, the export similarity index for the textile and clothes sector will be examined to assess whether there is significant competition between the two countries in third-country export markets.

Export Similarity Index (ESI):

The results of the calculated exports similarity index between China and USA from 1992 to 2022 are expressed in the next graph:

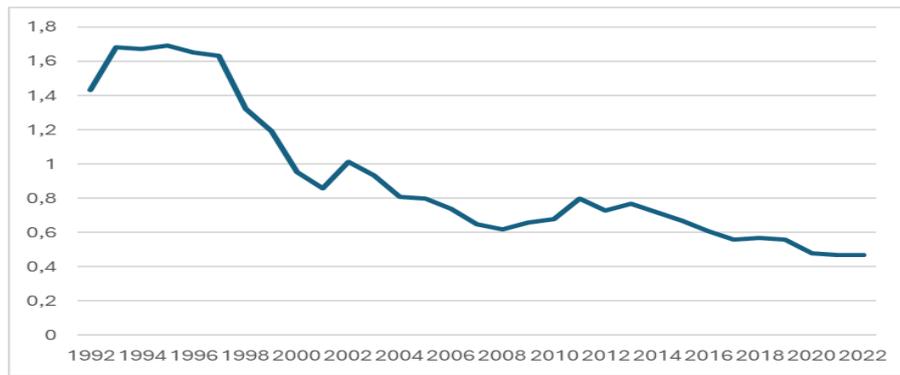


Figure 1. Export similarity index

The export similarity index between China and the USA in the textile and clothes sector, calculated for their exports to the German market, takes very low values over the period 1992–2022. The ESI ranges from 0.47 to 1.69, that is, only about 0.5–1.7% of the export structure in this sector overlaps between the two countries. Such low values indicate that competition between China and the USA in textile and clothes exports to Germany is weak, and that their export baskets in this sector are largely differentiated rather than directly competing.

Moreover, the index shows a slight downward tendency over time: it starts above 1.5 in the early 1990s and stabilizes below 1 after the early 2000s, reaching around 0.47 in the last years of the sample. This pattern suggests that the degree of specialization of China and the USA in the textile and clothes sector has increased over time and that the compatibility of their export structures has improved, in the sense of lower direct overlap and more distinct roles in the German market (Wang & Liu, 2015). In other words, even though competition in this sector can be regarded as low, the results point to a configuration where complementarity rather than rivalry dominates.

To take further our research and identify the specific segments where each country benefits from this complementarity in the textile and clothes sector, we will next study the comparative advantage of China and the USA at a more disaggregated product level.

Revealed Comparative Advantage (RCA):

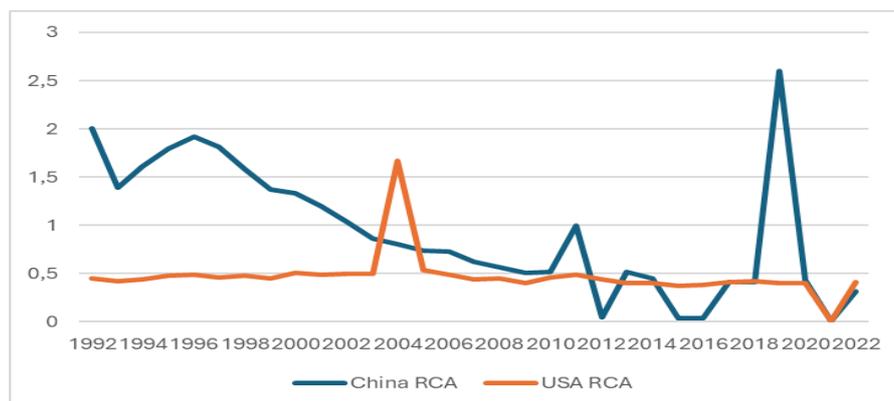


Figure 2. The revealed comparative advantage (RCA) indices

RCA indices for the textile and clothes sector show a clear asymmetry between China and the USA over 1992–2022. Throughout the 1990s and early 2000s (1992–2002), China records RCA values well above unity, typically between 1.3 and 2.0, indicating a strong and persistent specialization in textiles and clothing relative to the world export structure. Over the same period, the USA's RCA remains consistently below 1 (around 0.4–0.5), which points to a revealed comparative disadvantage in this sector. Thus, in the first decade of the sample, China appears as a core competitive supplier of textile and clothing products, while the USA plays only a minor role from the perspective of comparative advantage.

From the early 2000s onwards, China's RCA gradually declines and falls below 1 in most years after 2003, suggesting a relative diversification of China's export basket away from textiles and clothes. The only clear

exceptions are 2011, when China's RCA reaches approximately 1 (parity with the world structure), and especially 2019, when the index rises again well above unity, signaling a temporary re-concentration of Chinese exports in this sector. By contrast, the USA remains in a position of revealed disadvantage throughout almost the entire period, with RCA values firmly below 1 and only one notable spike above unity in 2004. The results show that both countries have diversified their exports over time, but that China has outperformed the United States in textile and clothing exports.

Conclusion

The focus of this study is an analysis of the textile and apparel export market between the United States and China over the period 1992–2022, using three indicators: the Trade Complementarity Index (TCI), the Export Similarity Index (ESI), and the Revealed Comparative Advantage (RCA) measure. The findings provide a clear picture of how the two countries interact in this field and what this implies for their competitiveness and overall trade structure.

First, the findings show that trade integration between the United States and China is generally high. China's textile and clothing export pattern matches well with the types of imports demanded by the U.S., which means that, in terms of what one country supplies and the other needs, they largely complement each other. This confirms that their trade relationship in this sector is mostly complementary rather than competitive. Although the U.S. complementarity index fluctuates more over time, several years still show a strong degree of alignment between the two sides.

Second, the export similarity index between the U.S. and China is very low. Both countries export textiles and apparel to Germany with almost no overlap. This means that they do not sell the same types of textile products to this third market. Consequently, their direct rivalry in the German market is small. Later, the similarity values are getting low, indicating an increase in specialization and diversification with respect to exports export profiles between the two economies.

The findings from the comparative advantage show a fundamental distinction between the two nations. China possesses a significant comparative advantage in textiles and apparel, particularly in the 1990s and early 2000s. This means China is globally competitive in this sector. In contrast, the United States shows a consistent comparative disadvantage, except for a few exceptional years. This finding indicates that textiles and apparel are not among the sectors where the U.S. is naturally strong or competitive.

Overall, these results suggest that the textile and clothing trade between the United States and China is shaped more by complementarity than rivalry. China plays the role of the main supplier with clear competitive strength, while the United States remains primarily a major importer in this sector. The two indicators—high complementarity and low export similarity—confirm that both countries occupy different positions in the global textile value chain. Our policy recommendation based on evidence is that China should keep its position as a dominant supplier while gradually diversifying its export markets to reduce excessive dependence on the U.S. market. For the United States, selecting to compete with China through favorable price strategies is not optimistic, given its revealed comparative disadvantage. Instead, the U.S. should direct its resources toward sectors where it has a better chance of competing and helps the textile industry make the changes it needs to.

In conclusion, the long-term trade pattern between the United States and China in the textile and apparel sector signs a stable and complementary relationship. Understanding this trend in trade can help both countries design more effective strategies, strengthen supply chains, and improve their overall economic outcomes in the global textile market.

Scientific Ethics Declaration

* The authors declare that the scientific ethical and legal responsibility of this article published in EPESS journal belongs to the authors.

Conflict of Interest

* The authors declare that they have no conflicts of interest

Funding

* This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

Acknowledgements or Notes

* This article was presented as an oral presentation at the International Conference on Management Economics and Business (www.iconmeb.net) held in Budapest/Hungary on February 05-08, 2026.

References

- Adigwe, P. (2021). Revealed comparative advantage and trade competitiveness in the European Union. *Zbornik Radova Ekonomskog Fakulteta*, 35(2), 98–118.
- Aktaş Çimen, Z., Kutlu, D., Sariçoban, K., & Ongun, U. (2024). The competitiveness of Turkish tourism in the global market. *Sustainability*, 16, 11232.
- Caliendo, L., & Parro, F. (2022). *Lessons from U.S.-China trade relations* (NBER Working Paper No. 30335). National Bureau of Economic Research. Retrieved from <https://www.nber.org/papers/w30335>
- China SCIO. (2025). *China's position on some issues concerning China-US economic and trade relations*. Retrieved from http://english.scio.gov.cn/whitepapers/2025-04/09/content_117814362_3.html
- CT, V. (2025). Dynamics of trade characteristics, competition networks, and trade fragility in ASEAN economies. *Emerging Markets Finance and Trade*, 1–17.
- Finger, M., & Kreinin, M. E. (1979). A measure of export similarity and its possible uses. *The Economic Journal*, 89(356), 905–912.
- Gulzar, A. (2011). A strategic framework for liberalising Pakistan's trade in services. *Lahore Journal of Economics*, 16(SE), 131–160.
- Hoang, N. (2018). Agricultural trade complementarity among ASEAN countries. *Journal of Asian Agricultural Economics*, 10(2), 115–132.
- International Trade Administration. (2025). *China country commercial guide*. <https://www.trade.gov/knowledge-product/exporting-china-market-overview>
- Liu, Y., Xu, X., & Zhang, H. (2020). International competitiveness and complementarity of agricultural products in Belt and Road countries: A network-based analysis. *Agricultural Economics (AGRICECON)*, 66(4), 183–195.
- Lu, S. (2025). *FASH455 global apparel & textile trade and sourcing*. <https://shenglufashion.com/2025/04/07/state-of-u-s-textile-and-apparel-manufacturing-employment-and-trade-updated-april-2025/>
- Maryam, J., Banday, U. J., & Mittal, A. (2018). Trade intensity and revealed comparative advantage between BRICS and the European Union. *The Journal of International Trade & Economic Development*, 27(6), 585–599.
- Maosheng Ye, Shen, J. H., Golson, E., Lee, C.-C., & Li, Y. (2022). The impact of Sino-US trade friction on the performance of China's textile and apparel industry. *International Finance*, 25(2), 151–166.
- Motta, E. P. (2021). The relationship between trade and competition in a globalized economy. *Antitrust Law Journal*, 84(1), 169–184.
- Peng, Y., & Wang, L. (2013). International competitiveness of China's vegetable industry: A multidimensional assessment. *Journal of International Food & Agribusiness Marketing*, 25(4), 308–325.
- Royal Europe Textile. (2025). *Top 10 textile manufacturing countries in the world: FY 2024 update*. <https://www.royaleuropetextile.com/top-10-textile-manufacturing-countries-in-the-world-fy-2024-update/>
- Shahzad, U., & Xiaoyin, H. (2023). The importance of trade integration and trade complementarity in shaping China's trade relations with Europe and Central Asia. *Economic Research—Ekonomiska Istraživanja*, 36(1), 1234–1252.
- Stocker, M., Lakatos, C., Ohnsorge, F., & Kose, M. A. (2017). *Understanding the global role of the US economy*. <https://cepr.org/voxeu/columns/understanding-global-role-us-economy>
- Tao, Z. (2022). Competitiveness and complementarity of agricultural products between Thailand and China on a short-term basis. *Problems and Perspectives in Management*, 20(3), 425–438.
- UNCTAD. (2025). *Trade indicators*. Retrieved from <https://unctadstat.unctad.org/datacentre/reportInfo/US.RCA>

- Vidya, C. T. (2025). Dynamics of trade characteristics, competition networks and trade fragility in ASEAN economies. *ASEAN Economic Bulletin*, 42(1), 1–19.
- Vlasenko, L. (2020). Evaluation of the composite export similarity index on the example of China. *REICE: Revista Electrónica de Investigación en Ciencias Económicas*, 8(16), 135–149.
- Wani, N. U., Dhami, J. K., & Sidana, J. (2020). Trade complementarity and similarity between India and Russia: An empirical assessment. *Journal of International Economics and Trade Studies*, 12(3), 45–62.
- WITS. (2025). *Trade indicators*. Retrieved from https://wits.worldbank.org/wits/wits/witshelp/Content/Utilities/e1.trade_indicators.htm
- WTO. (2025). *A practical guide to trade policy analysis*. Retrieved from <https://www.wto.org>
- Zinchenko, A. A., & Radionova, S. A. (2023). Analysis of the effects produced by trade liberalization in the Republic of Uzbekistan and the EAEU. *Studies on Russian Economic Development*, 34(1), 142–149.

Author(s) Information

Fatih Mangir

Selcuk University, Economics and Administrative Sciences
Faculty, International Trade and Finance, Konya/Türkiye
ORCID: <https://orcid.org/0000-0003-1348-7818>

*Contact e-mail: fmangir@selcuk.edu.tr

Metehan Ortakarpuz

Selcuk University, Beysehir Ali Akkanat Business Faculty,
International Trade and Business, Konya/Türkiye
ORCID: <https://orcid.org/0000-0002-1674-4245>

*Corresponding authors contact email

To cite this article:

Mangir, F., & Ortakarpuz, M. (2026). U.S.-China textile and apparel trade: A trade competitiveness analysis for the period 1992-2022. *The Eurasia Proceedings of Educational and Social Sciences (EPESS)*, 48, 14-24.