

An empirical analysis of foreign trade concentration between Türkiye and Egypt (2005-2023)

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Abstract. *This study aims to analyze the development of foreign trade between Türkiye and Egypt for the period 2005-2023, following the implementation of their free trade agreement. For this purpose, the concentration levels of foreign trade between those countries were evaluated through the calculation of the Export Concentration Index, and the Import Concentration Index. The findings of the study indicate that, despite the tensions following the 2011 Arab Spring, the foreign trade relationship between Türkiye and Egypt has shown a consistent and substantial improvement. The clearest evidence showed concentration indices for both countries' exports and imports have significantly surpassed 1 (≥ 1).*

Keywords: Türkiye, Egypt, Foreign Trade, Trade Concentration Indexes, Bilateral Relations.

JEL Classification: F10, F14, F50.

1. Introduction

Foreign trade is widely acknowledged to play a critical role in all economies, serving as a driving factor for each country's economic growth and development processes. It is an essential tool for achieving comprehensive development of the state (Bouaisha and Marsili, 2022: p.1). The balance of payments is considered one of the most important macroeconomic indicators and a tool for assessing the performance of the national economies. Thus, it reflects the state and position of the national economy and reveals its strengths and weaknesses. It also demonstrates its current state and position, the extent of its reliance on the outside world, the amount of external debt, and the nature of its economic relations with other nations. Foreign trade is the most significant element influencing the trade balance. Hence, the influence and link between foreign trade and trade balance become apparent (Sulaiman, 2021: pp.31-32). Foreign trade facilitates interaction and exchange between the domestic and global markets.

Real exchange rates, gross domestic product (GDP), relative prices, and other economic variables are fundamental foreign trade indicators. However, it must be accepted that economic factors and political relations between the countries greatly influence their bilateral foreign trade. These domains have grown inseparably linked with economic tools, becoming central in global political strategy. This integration gave rise to theories like International Political Economy (IPE), blending economic and political perspectives on global interactions. IPE debates are primarily framed by Liberal and Realist theories, each offering divergent perspectives on the role of foreign trade in international relations: Liberals posit that foreign trade is essential for maximizing social welfare, with political stability and globalization facilitating robust trade. They argue that trade relations enhance political ties, as nations prioritize economic benefits over conflict (Çakmak & Ustaoglu, 2017). This viewpoint aligns with the "democratic peace theory," asserting that democracies, bound by economic interdependence, are less likely to engage in conflict. In contrast, Realists view states as power-maximizing entities, considering foreign trade as a means to strengthen national security. Realists say trade relations are temporary and driven by strategic interests, with political decisions dictating economic interactions (Öncel and Liapina, 2018).

Studies exploring the interplay between political dynamics and trade reveal varying conclusions: Keshk et al. (2004) confirmed that political conflicts constrain trade but found mixed evidence on the pacifying effect of trade interdependence. Armstrong (2012) analyzed Japan-China trade under political strain, observing limited effects of political tensions on trade. Davis et al. (2015) showed that worsening political relations significantly decreased trade, particularly in state-controlled sectors. Rasoulinezhad (2016) illustrated how sanctions and oil price fluctuations negatively impacted Iran-Russia trade. Çakmak and Ustaoglu (2017) identified a strong correlation between diplomatic relations and bilateral trade in Turkey-Israel foreign trade relations and stated that critical political crises led to sharp trade declines. The relationship between trade and political relations is

bidirectional. While trade can foster diplomatic ties, political decisions significantly influence trade dynamics. In a similar study on Türkiye-Russia foreign trade, Öncel and Liapina (2018) concluded that trade relations are negatively affected if political relations deteriorate. Theoretical and empirical studies underline the complexity of this interplay, with outcomes varying based on political regimes, economic strategies, and geopolitical contexts. Further research, integrating political relations into traditional trade models is essential to understanding this multifaceted relationship.

Türkiye and Egypt have mutual economic, cultural, political, historical, and social relationships. Although political relations between the two countries have experienced tension, their economic interactions have remained resilient mainly because of differences in their foreign policy objectives. Both countries continue to prioritize and strengthen bilateral trade, recognizing that while governments shape political dynamics, foreign trade is driven by individual actors. Türkiye and Egypt are regarded as the two most important countries in the eastern Mediterranean region and are two substantial military powers and two important Islamic centers (Abu Al-Ela, 2023: pp.727-731). One of the most important economic aspects of Egyptian-Turkish relations in the twenty-first century is the 2005 free trade agreement, which went into effect in 2007, despite tensions in political relations between the two parties following the Arab Spring revolutions of 2011, and particularly after the fall of the Muslim Brotherhood Party in Egypt following which each country recalls its ambassador from the other. However, this economic agreement remained free of disintegration and political tension. The level of commercial exchange between the two parties (in products and services) has expanded over time, with more than 7 billion USD exchanged between the two nations in 2022 (CAPMAS, 2024). Now that diplomatic relations have mended, and President Recep Tayyip Erdoğan has met his Egyptian counterpart, Leader Abdel Fattah el-Sisi, following an 11-year rupture, trade relations between the two countries are likely to grow and expand. This study aims to analyze Turkish-Egyptian trade relations following the 2005 free trade agreement through the period of political tension that began to emerge after the events of the January 2011 revolution and escalated further after the Muslim Brotherhood was ousted by presidential rule.

In this study, trade relations between Türkiye and Egypt for 2005-2023 were analyzed within the framework of foreign trade data such as exports, imports, and total trade volume. To this end, the Export Concentration Index and Import Concentration Index were calculated to determine the intensity of trade relations between the two countries. This approach allows for an assessment of the share of trade between Türkiye and Egypt in total foreign trade. Furthermore, in the subsequent section of the study, changes in the sectors involved in trade, both in terms of goods and services, over the years were analyzed. The study also explores which specific goods trade relations between the two countries are the most dependent.

The rest of the study is structured as follows: The second section reviews the relevant empirical literature. The third section focuses on analyzing the economic relations between the two countries, including evaluating trade exchanges (exports and imports) and calculating trade concentration indicators for both Türkiye and Egypt. Finally, suggestions are proposed to boost the potential trade between Türkiye and Egypt.

2. Literature Review

All nations strive to enhance their global commercial relationships and seek membership in regional and international blocs and unions. This is primarily because countries recognize the critical role these relationships play in strengthening their international standing, expanding their influence, and fostering foreign trade. Foreign trade, in particular, serves as the cornerstone of economic development in every nation. A country's focus on foreign trade has numerous advantages, including increased production, growth in GDP through higher export and import volumes, and revenue generation that stimulates investment and fosters positive economic activity (Bouaisha and Marsili, 2022: p.9). The importance of foreign trade can be categorized into three intellectual perspectives: mercantilist, classical, and modern. Mercantilists argue that precious metals are the primary sources of a state's wealth. Consequently, they emphasize the significance of foreign trade as one of the most effective means of wealth generation, primarily through the expansion of exports and the regulation or restriction of imports (Khobai et al., 2018: p.78). From the classical perspective, as articulated by Adam Smith, labor and production constitute the fundamental sources of a nation's wealth. Foreign trade is essential because it supports the growth of the productive and industrial sectors. It generates economic benefits when a country specializes in producing and exporting goods for which it has an absolute cost advantage compared to other nations. In contrast, modern theories, particularly Linder's theory, view foreign trade as an extension of the domestic market, facilitating the disposal of surplus production. According to this perspective, the greater the external demand for a country's products, the higher are the gains from foreign trade. This, in turn, promotes greater production and efficiency within the economy (Alsheikh and Balangari, 2021: pp.55-56).

Empirical research on the development of trade and trade concentration involving Türkiye and Egypt remains relatively scarce. One study examining Türkiye's trade dynamics, conducted by Kurt Gümüş and Kramskova (2024), revealed that Türkiye and Russia function more as trade partners than their international competitors. Using trade indicators such as trade intensity and trade integration, this study identifies robust bilateral trade flows between the two countries from 2001 to 2021. Despite global crises and various political and economic challenges, Russia managed to increase its exports to Türkiye, although Türkiye did not reciprocate to the same extent. Teker et al. (2022) investigated the effects of the COVID-19 pandemic and Russian-Ukrainian war on global supply chains and found that trade between Türkiye and China remained unaffected and continued to grow steadily.

However, this growth was largely driven by an increase in Chinese exports to Türkiye, which resulted in a widening trade gap between the two nations. Similarly, Selçuki and Tulan (2021) highlight the influence of political relations between Türkiye and the European Union on economic ties. They noted that stronger political relations led to deeper economic integration, identifying industries and products with significant trade advantages through trade indicators and Revealed Comparative Advantage (RCA) analysis. Alpdoğan et al. (2020) analyzed trade relations between Türkiye and Azerbaijan for the period 1995–2015, emphasizing the importance of bilateral commercial exchange through foreign trade statistics and concentration indicators. Öncel and Liapina (2018) explored the impact of political relations on the Turkish-Russian trade balance. Their findings indicated that deteriorating political relations negatively affected trade during the study period. However, the study also concluded that Russia's GDP growth positively influenced bilateral trade between 1996 and 2016, using least squares regression and the Augmented Dickey-Fuller (ADF) test. Regarding Egypt's foreign trade concentration, Reda et al. (2012) found that Egypt's trade intensity index with China was relatively low, suggesting that trade between the two countries was below potential. This conclusion was based on the analysis of trade intensity, intra-industry trade indices, and trade complementarity measures during the period 1994–2008.

The literature review revealed a lack of studies calculating the trade concentration between Türkiye and Egypt. However, Allam (2017) conducted research on trade relations between the two countries and found that 72% of Egyptian enterprises import goods from Türkiye, but do not export goods. Conversely, 10% of Turkish enterprises import goods from Egypt but do not export them, while 65% of Turkish enterprises in the study's sample export to Egypt but do not engage in imports. This study identified several obstacles affecting the volume of trade exchanges between the two nations, including political disputes, administrative barriers, and custom-related challenges. These findings were derived from a survey administered to Turkish and Egyptian companies. In addition, Saad (2024) explored the Egyptian-Turkish relationship from a political perspective and analyzed the impact of the ideological orientations of political leaders in both countries. The study examined how these ideologies shaped bilateral relations and highlighted changes in these dynamics over the period 2013–2024. Our study seeks to address the research gap in Turkish-Egyptian trade relations by analyzing bilateral trade ties and investigating the concentration of trade exchanges.

3. The Economic Relations between Türkiye and Egypt Review

Economic and trade relations between Egypt and Türkiye have deep historical roots that predated the Ottoman Empire. These relations are characterized by a long-standing interdependence founded on a rich heritage of shared history, culture, and cooperation. Historical records trace the origins of these relations to the oldest known treaty in human history, "the Treaty of Kadesh," which was established between the Hittite kingdom in

Anatolia and the ancient Egyptian state (between King Khatushili III and King Ramesses II), following the Battle of Kadesh in 1274 BC (Al-Othmani, 2023). The treaty's text, inscribed on a stone tablet, is currently preserved in the Istanbul Museum, while another copy of the hieroglyphics is located in Luxor, Egypt. Throughout the Ottoman era, Egypt held a significant position within the Ottoman High House, and Ottoman monuments continued to maintain their prestige and importance in Egypt. This shared heritage has fostered strong ties between the two nations, resulting in a robust friendship that remains resilient despite fluctuations in diplomatic relations or differences in political leadership and foreign policy. This bilateral cooperation and interdependence are particularly evident in contemporary economic relations, as the two countries engage in significant mutual investments and have been bound by a free trade agreement for nearly two decades (USAID, 2007). The most salient aspects of the current bilateral economic relations between Türkiye and Egypt are: The free trade agreement and its resultant trade benefits for both nations and the Turkish industrial zone for vehicles and machinery.

Among the investments between the two countries are ongoing negotiations to establish a Turkish industrial zone within Egypt, specializing in automobiles, machinery, and equipment, analogous to the existing industrial zone in the city of Bursa, which specializes in textiles, automobiles, aluminium, machinery, equipment, and advanced technologies. This region is intended to serve as an export hub from Egypt to the markets of Europe (Economy Plus, 2024), the United States of America, the Arabian Gulf, and North Africa, particularly given Egypt's free trade agreements with these markets that facilitate expedited access for Turkish products. Furthermore, this region will be attractive to various Turkish investors by facilitating investment in the Egyptian market.

A bilateral free trade agreement was signed in 2005 (WIPO, 2005), which came into effect in 2007 to establish a free trade area between the two countries over a period not exceeding twelve years from the date of ratification. According to this agreement, Egyptian industrial exports to Türkiye are immediately exempted from customs duties and other fees and taxes with similar effects, in addition to applying discount rates to a specific list of products that vary over time until they reach full exemption. The free trade agreement not only provides Egyptian industrial exports with full and immediate access to the large Turkish market, but also facilitates access to the European Union market (Mohammed, 2012: pp.3-4) by integrating Turkish and Egyptian industries and enabling Egyptian exporters to benefit from Türkiye's experience in the European Union. Consequently, the Free Trade Agreement achieves several trade benefits, the most significant of which are removing restrictions imposed on trade in goods, including agricultural products, creating a suitable environment to attract more investments, ensuring fair trade competition between the two countries, and facilitating access to European Union markets. Egypt-Africa free trade agreements such as the Common Market for Eastern and Southern Africa (COMESA) Agreement facilitate access for Turkish investors.

3.1. Trade exchange between Türkiye and Egypt (2005-2023)

Egypt is currently recognized as Türkiye's primary trading partner on the African continent. Both nations provide substantial markets for each other's exports (Fouad, 2024). Despite the interruption in diplomatic relations, economic ties remained mutually beneficial and played a significant role in the restoration of official relations between the two countries. Since the two parties agreed to the free trade agreement, intra-regional trade and commercial exchange rates between them have expanded, with bilateral trade rates between the two parties. Investments also increased as the volume of Turkish investments operating in the Egyptian market currently amounts to 77.8 million USD, while the value of projects implemented by Turkish contractors in Egypt is approximately 1.2 billion USD, according to data from the Central Agency for Public Mobilization and Statistics in Egypt (TurkPress, 2024).

Foreign trade between Egypt and Türkiye is considered a crucial element in economic relations between the two countries. Foreign trade between them has grown substantially in recent years. The free trade agreement signed in 2005 played an essential role in boosting the volume of trade exchange between the two countries, increasing their exports to each other and enhancing their reliance on each other for capital and consumer goods imports. As can be seen from Table 1, Turkish exports to Egypt have increased significantly since 2005, rising from 687,299 thousand USD in 2005 to 3,336,392 thousand USD in 2013, reaching a peak of 4,557,744 thousand USD in 2022. Moreover, Turkish imports from Egypt gradually increased starting from 267,246 in 2005, reaching 1,718,720 thousand USD in 2013, and attaining their highest value of 3,644,927 thousand USD in 2023.

Table 1. *Turkish-Egyptian foreign trade volumes (2005-2023)*

Years	The volume of Türkiye's exports to Egypt			The volume of Türkiye's imports from Egypt		
	Volume (thousand USD)	Türkiye's total export volume	Share in the Total Exports of Türkiye (%)	Volume (thousand USD)	Türkiye's total import volume	Share in the Total Imports of Türkiye (%)
2005	687,299	73,476,408	0.935	267,246	116,770,590	0.229
2006	709,353	85,534,462	0.829	392,524	139,571,710	0.281
2007	902,703	107,271,750	0.842	652,988	170,062,715	0.384
2008	1,426,450	132,027,196	1.080	886,237	201,963,574	0.439
2009	2,599,030	102,142,613	2.545	641,552	140,928,421	0.455
2010	2,250,577	113,883,219	1.976	926,476	185,544,332	0.499
2011	2,759,311	134,906,869	2.045	1,382,216	240,841,676	0.574
2012	3,679,195	152,461,737	2.413	1,342,051	236,545,141	0.567
2013	3,336,392	161,480,915	2.066	1,718,720	260,822,803	0.659
2014	3,442,287	166,504,862	2.067	1,535,280	251,142,429	0.611
2015	3,124,968	143,844,066	2.172	1,215,905	207,235,628	0.587
2016	2,733,143	142,606,247	1.917	1,443,408	198,601,934	0.727
2017	2,360,734	156,992,940	1.504	1,997,503	233,799,651	0.854
2018	3,053,571	167,923,862	1.818	2,190,937	223,046,879	0.982
2019	3,510,629	180,870,841	1.941	1,903,805	210,346,890	0.905
2020	3,136,568	169,657,940	1.849	1,722,944	219,514,373	0.785
2021	4,519,351	225,264,314	2.006	2,211,676	271,422,758	0.815
2022	4,557,744	254,171,899	1.793	2,550,883	363,710,987	0.701
2023	3,337,302	255,777,398	1.305	3,644,927	361,763,873	1.008

Source: Constructed based on International Trade Centre (ITC)

Despite Egypt's relevance to Türkiye as an economic partner and an important global player, the volume of foreign trade remains low. Turkish exports and imports to Egypt accounted for approximately 1.305 and 1.008 percent of the total Turkish exports and imports to the world (figures, respectively). However, with recent improvements in diplomatic relations, trade exchanges and agreements between countries have been projected to increase. Table 2 and Figure 1 indicate the foreign trade volume between Türkiye and Egypt from 2005 to 2023. In 2005, the volume of foreign trade between the two countries was approximately 954,545 thousand USD, which has increased significantly. Despite the highest levels of diplomatic tension in 2013, the trade volume remained consistent, reaching approximately 5,055,112 thousand USD (compared to 2005 and 2006, when political relations were more favourable). The volume of foreign trade between the two countries reached its peak in 2022 at approximately 7,108,627 thousand USD, compared to 6,982,229 thousand USD in 2023. This decline may be attributed to the devastating Hatay earthquake that occurred at the beginning of 2023, which Türkiye continues to address.

Table 2. *The volume of foreign trade between Türkiye and Egypt in the period between 2005-2023 (values in thousand USD)*

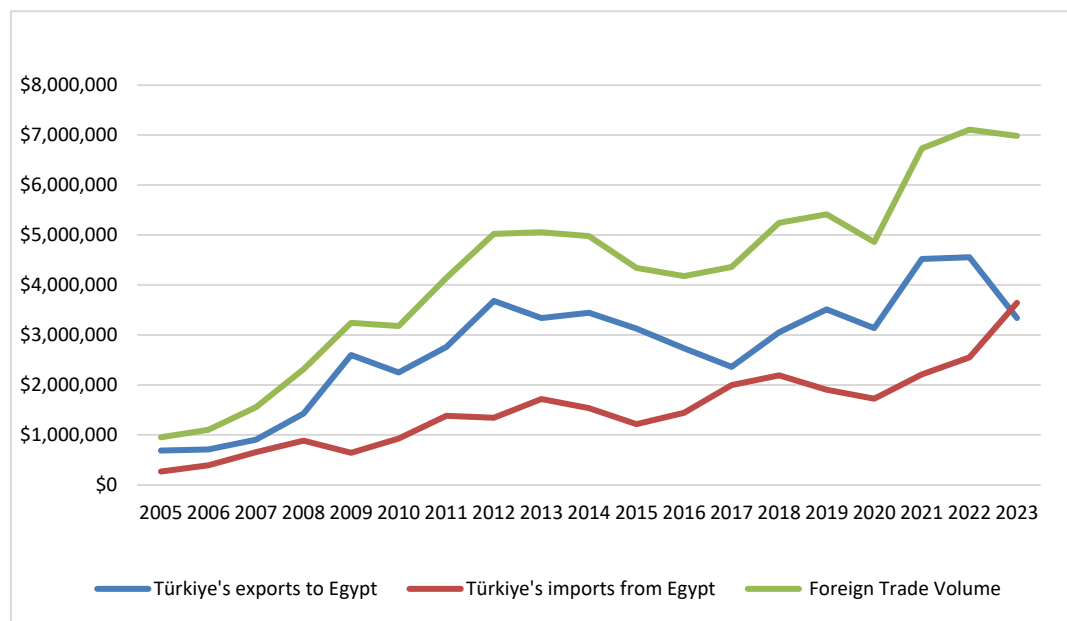
Years	Türkiye's exports to Egypt	Türkiye's imports from Egypt	Foreign Trade Volume
2005	687,299	267,246	954,545
2006	709,353	392,524	1,101,877
2007	902,703	652,988	1,555,691
2008	1,426,450	886,237	2,312,687
2009	2,599,030	641,552	3,240,582
2010	2,250,577	926,476	3,177,053
2011	2,759,311	1,382,216	4,141,527
2012	3,679,195	1,342,051	5,021,246
2013	3,336,392	1,718,720	5,055,112
2014	3,442,287	1,535,280	4,977,567
2015	3,124,968	1,215,905	4,340,873
2016	2,733,143	1,443,408	4,176,551
2017	2,360,734	1,997,503	4,358,237
2018	3,053,571	2,190,937	5,244,508
2019	3,510,629	1,903,805	5,414,434
2020	3,136,568	1,722,944	4,859,512
2021	4,519,351	2,211,676	6,731,027
2022	4,557,744	2,550,883	7,108,627
2023	3,337,302	3,644,927	6,982,229

Source: Constructed based on ITC.

The Figure 1 indicates that the volume of foreign trade between the two countries has remained consistently high and stable to date, with the exception of the period 2014-2016 when both nations experienced severe global and internal economic crises. On a global scale, numerous events transpired, with perhaps the most significant being the continuation of the European financial crisis, which impacted supply chains and trade (Hawa, 2013: pp.206-207), and the oil price collapse crisis of 2015-2016 (Zaidi, 2016: p.219), which dealt with a devastating blow to Middle Eastern economies, affecting both oil-producing and non-oil-producing countries. Türkiye and Egypt have experienced negative economic

impacts on bilateral trade. Domestically, Türkiye experienced tension and political instability resulting from parliamentary elections and the failure of parties to form a coalition government (Jurgens, 2021). The Turkish economy was adversely affected, with the value of the Turkish lira depreciating to 2.24 liras to the dollar at the beginning of 2015, continuing to decline until it reached 2.73 liras to the dollar by mid-year. In 2016, political movements advocating for a coup against President Recep Tayyip Erdogan's administration intensified, and Türkiye's economy was affected by these events, as the volume of its foreign trade with the world decreased and macroeconomic indicators declined. These events have influenced the global volume of foreign trade (Al-Sawy, 2015). Conversely, Egypt recorded its highest economic growth rate (4.2) in 2015 over the five years following the Egyptian Revolution of 2011. The GDP growth rate (2014/2015) reached 4.2%, up from 2.2% in (2013/2014) (Easterman, 2015), and several macroeconomic indicators improved as the Egyptian economy began to recover from the effects of the 2011 revolution.

Figure 1. *The volume of foreign trade between Türkiye and Egypt in the period between 2005-2023*



Source: The Figure was prepared by the authors using Table 2.

3.2. Concentration of foreign trade between Türkiye and Egypt

The ratio of exports to imports (X/M) and the balance of foreign trade (X-M) are two of the most significant indicators that provide information about a country's economic structure. The balance of foreign trade indicates the direction and intensity of a country's influence on foreign trade, whereas the concentration of exports and imports expresses the strength and intensity of bilateral trade (Alpdoğan et al., 2020: p.19). In this context, in

order to measure the concentration level of trade between Türkiye and Egypt, export and import concentration indexes will be calculated for both countries in the following section.

Trade concentration refers to the degree of concentration in trade exchanges between two countries relative to each country's volume of trade exchange with the rest of the world. For instance, if Türkiye's average exports to Egypt exceed the average exports of other countries, this indicates that Türkiye's exports to Egypt are of significant importance and high intensity. Conversely, if Türkiye's average exports to Egypt are lower than the average exports of other countries to Egypt, this suggests that Türkiye's exports to Egypt are of lesser importance and intensity than those of other countries. The conclusion in this case is that trade relations between these two countries are not as intense as previously assumed. This is the primary objective of the study: "Measuring the concentration of trade between Egypt and Türkiye".

The function of this indicator is to elucidate the level and volume of a country's foreign trade with a specific country or group of countries in comparison to the global average. The value of the trade concentration indicators ranges from 0 to $+\infty$. An index value greater than "one" indicates that trade relations are "intensive". The export concentration index and import concentration index between Türkiye and Egypt can be calculated with the equations below.

▪ **Export concentration index: equation (1)**

$$EXI_{AB} = \frac{(X_{AB}/X_A)}{M_B/(M_W - M_A)}$$

Interpretation of equation (1):

X_{AB} = Country A's exports to Country B

X_A = Country A's total Exports

M_B = Country B's total imports

M_W = World Imports

M_A = Country's A total imports

▪ **Import concentration index: equation (2)**

$$IMI_{AB} = \frac{M_{AB}/M_A}{X_B/(X_W - X_A)}$$

Interpretation of equation (2):

M_{AB} = Country A's imports from Country B

M_A = Country A's total Imports

X_B = Country B's total exports

X_W = World Exports

X_A = Country's A total exports

In Tables 3 and 4, utilizing data obtained from ITC, and the Turkish Statistical Institute (TURKSTAT) using Equations 1 and 2, the export concentration indices were calculated.

Table 3. *Export concentration, and Import concentration of Türkiye's trade to Egypt*

Years	TUR. Export Concentration Index	TUR. Import Concentration Index
2005	4.964	2.210
2006	4.892	2.437
2007	4.353	3.254
2008	3.268	2.647
2009	7.031	2.310
2010	5.648	2.841
2011	5.951	3.271
2012	6.312	3.518
2013	5.760	4.279
2014	5.409	4.261
2015	4.805	4.368
2016	4.307	4.993
2017	3.956	5.626
2018	4.316	6.423
2019	4.791	5.513
2020	4.595	4.643
2021	4.989	4.095
2022	4.669	3.292
2023	3.639	5.519

Source: The table was prepared by the authors.

The results in Table 3 demonstrate that Türkiye's export concentration index has exceeded one (> 1) since 2005 and continued to increase until it reached its peak value of 7.031 in 2009, indicating that exports between Türkiye and Egypt are intensive and persistent. Similarly, Table 4 reveals that Egypt's export concentration index also exceeded one (> 1), reaching a maximum value of 6.009 during the study period in 2018. A comparison of the indicator values for Türkiye and Egypt shows that Türkiye export concentration index values are higher than those of Egypt, suggesting that Egypt is a significant trading partner for Türkiye.

Table 4 presents the values of two concentration indicators (exports and imports) for Egypt and Türkiye during the period 2005-2023. From the values of these two indicators, it can be concluded that both index values exceeded 1 (>1), indicating the intensity of Egypt's trade with Türkiye. Upon comparing the values of the import concentration index between Egypt and Türkiye, it is observed that the values of import concentration for Egypt are higher than those for Türkiye, suggesting that Türkiye is a significant partner and an important exporter for Egypt.

Table 4. *Export concentration, and Import concentration of Egypt's trade to Türkiye*

Years	EGY. Export Concentration Index	EGY. Import Concentration Index
2005	2.854	4.423
2006	2.324	2.652
2007	2.263	2.177
2008	2.415	2.666
2009	2.624	6.269
2010	3.081	4.693
2011	3.678	5.686
2012	4.161	6.017
2013	4.369	4.592

Years	EGY. Export Concentration Index	EGY. Import Concentration Index
2014	4.060	4.525
2015	4.609	5.068
2016	5.034	5.230
2017	5.545	3.507
2018	6.009	4.648
2019	5.183	4.852
2020	4.685	4.680
2021	5.647	4.121
2022	5.288	3.850
2023	5.815	3.041

Source: The table was prepared by the Author.

3.3. The main products in Türkiye Exports to Egypt

The structure of Turkish exports is characterized by diversity and comprehensiveness. The Turkish economy possesses abundant resources that enable it to expand its production and export structure. Türkiye exports a wide variety of industrial and food commodities. Türkiye has an extensive export sector that provides multiple channels and markets that are receptive to its products. Furthermore, Turkish exports are distinguished by their high quality and adherence to the standard specifications for various commodities and products.

As indicated in Table 5, Türkiye's list of exports for 2023 is led by several items, including exports of vehicles and railways (and their supplies) valued at 30,837,047 thousand USD of which Egypt's share was approximately 106,555 thousand USD. This was followed by the exports of Nuclear reactors and mechanical appliances worth 25,226,968 thousand USD, of which 424,809 thousand USD were exported to Egypt. Egypt has long been considered a receptive market for various Turkish products, such as Turkish furniture, which has a high reputation in Egypt, as well as Turkish textiles and clothing, in addition to foods and nuts, for which Türkiye is renowned and widely available. Cotton and chemicals are Türkiye's major exports to Egypt in 2023, accounting for 7.3% and 4.8%, respectively, of the total value of Turkish exports worldwide.

Table 5. *The Most Important Turkish Exports in 2023 (thousand USD)*

Main Products	Total Exports	Exports to Egypt	Egypt's share
Vehicles other than railway and rolling stock, and parts and accessories thereof	30,837,047	106,555	0.345%
Nuclear reactors, boilers, machinery and mechanical appliances: parts thereof	25,226,968	424,809	1.6%
Iron and steel (Articles of iron or steel)	18,926,268	589,010	3.1%
Articles of apparel and clothing accessories, knitted or crocheted (+not knitted or crocheted)	18,321,785	68,880	0.37%
Mineral fuels, mineral oils and products of their distillation	16,409,266	123,133	0.75%
Electrical machinery and equipment reproducers, television	15,350,853	156,418	1.01%
Plastics and articles thereof	10,590,247	190,873	1.8%
Rubber and articles thereof	3,819,450	91,116	2.38%
Edible fruit and nuts: peel of citrus fruit or melons	5,369,660	27,508	0.5%
Inorganic chemicals; organic or inorganic compounds of precious metals	2,965,959	143,940	4.8%
Cotton	2,100,981	153,848	7.3%

Source: ITC, 2024.

3.4. The main products of Türkiye's imports from Egypt

Türkiye is considered a significant and prominent importer of energy sources, as imports of fuel and energy sources constitute more than 20% of the total Turkish imports. Türkiye is a net energy importer, with oil imports providing more than 98% of its oil and natural gas requirements (Majid and Rahi, 2021: p.355). This is a natural consequence of the rapid rate of industrialization, developing economy, and notable increase in the Turkish population. As shown in Table (5), by 2023, Turkish imports from Egypt amounted to approximately 3,644,927 thousand USD. These imports were predominantly by-products, fertilizers, textile threads, and fibres, accounting for 17% and 8.24% of the total global Turkish imports, respectively. Egypt is recognized for its exports of standard quality fertilizers and chemical compounds, as well as spinning and textile threads, thus positioning it as a significant supplier of these products for Türkiye.

Table 5. *The Most Important Imports in 2023 (Thousand USD)*

Main Products	Total Imports	Imports from Egypt	Egypt's share
Mineral fuels, mineral oils and products of their distillation	69,115,358	481,237	0.6%
Natural or cultured pearls, precious or semi-precious stones, precious metals	33,912,165	74,739	0.22%
Electrical machinery and equipment and parts thereof; sound recorders and reproducers, television.	27,824,279	204,679	0.74%
Iron and steel	24,160,653	353,938	1.5%
Plastics and articles thereof	16,214,536	421,178	2.6%
Inorganic chemicals + Organic chemicals	11,688,270	317,314	2.71%
Cereals	5,077,549	0.0	0.0%
Man-made filaments; strip and the like of man-made textile materials + Man-made staple fibres	3,839,525	316,719	8.24%
Fertilisers	2,374,008	411,710	17.34%

Source: ITC, 2024.

3. Conclusions

This study analyzes the development of foreign trade between Türkiye and Egypt, calculates trade concentration indicators, and examines the most significant commodities exchanged between these two nations. The findings indicate that despite fluctuations in political relations over time, both countries have recognized each other's economic and diplomatic importance. Historically, these nations have maintained social, cultural, and commercial ties, resulting in a pattern of stability that follows periods of tension. This research demonstrates that trade between Türkiye and Egypt has improved significantly and consistently, particularly after the implementation of a free trade agreement and other economic cooperation agreements. The volume of Türkiye's trade with Egypt in 2023 reached 6,982,229 thousand USD, compared to 954,545 thousand USD in 2005. However, despite Egypt's significance as a trading partner, the average volume of Türkiye's exports to Egypt as a percentage of total Turkish exports did not exceed 1.9%. Nevertheless, it is anticipated that the current improvement and stabilization of political relations will enhance this average and increase the economic cooperation between the two countries.

The study calculated trade concentration indicators for Türkiye, with export and import concentration indices above 1 (>1) during the study period (2005-2023). The export concentration index reached 3.639 in 2023, from 4.964 in 2005, and peaked in 2009 at 7.031. In 2023, the import concentration index was 5.519, increasing from 2.210 in 2005, and peaking at 6.423 in 2018. For Egypt, the export and import concentration index values were greater than 1 from 2005 to 2023. The export concentration index value in 2023 reached 5.815, compared to 2.854 in 2005, and reached its highest value in 2018 at 6.009. The import concentration index value in 2023 reached 3.041 compared to 4.423 in 2005, and reached its highest values in 2009 and 2012 at 6.269 and 6.017, respectively. A comparison of the indicators in both countries reveals that the Turkish export concentration index is higher than the Egyptian export concentration index, suggesting that Turkish exports to Egypt have a higher concentration and volume than Egyptian exports to Türkiye. Similarly, Egypt has a higher import concentration index rating, indicating that a greater percentage of Turkish products enter the Egyptian market than Egyptian products into the Turkish market.

The diversity of resources in the Turkish economy has contributed to a substantial and varied export sector, particularly because of the high quality of its exports. Consequently, several Turkish goods have become prominent in its exports to Egypt, including automobiles, railway equipment, accessories, electrical appliances, and home furnishings. Conversely, energy materials have dominated Türkiye's imports, as they are industrialized nations with a growing population concentration, constituting approximately 20% of its total imports. Egyptian fibres and threads have also featured prominently in Türkiye's imports owing to the superior quality of Egyptian cotton and fibres.

Based on the presented data analysis, it can be concluded that bilateral trade between Egypt and Türkiye is mutually beneficial. Therefore, intensifying efforts to enhance political and economic relations will yield advantages to both parties. Through the free trade agreement between the two countries, they can capitalize on large and external economies of scale, particularly given their geographical proximity and ease of transporting production factors. Additionally, they can leverage each other's expertise in sectors where they possess a comparative advantage, such as the fertilizer, textile, automobile, and mechanical machinery industries.

There are numerous opportunities to strengthen the cooperation between Türkiye and Egypt, including economic integration. The primary opportunity lies in trade and investment, with Turkish investments in Egypt amounting to approximately 77.8 million USD, predominantly concentrated in the industrial sector, particularly in spinning, textiles, ready-made clothing, and chemical products. Other significant investment areas include glass products, recycling, tourism, and industrial development. Furthermore, the free trade agreement has significantly enhanced bilateral exports, resulting in trade exchanges exceeding 6 billion USD between the two countries.

Despite the profitability of this trade, it remains limited in comparison to both nations' potential, as well as the scale of their relationships and interdependence. Egyptian and Turkish markets exhibit diverse preferences that allow for increased trade between them, particularly in the agricultural sector. Because of the extreme cold in the winter season, Türkiye cannot cultivate crops that do not tolerate low temperatures, such as mangoes and citrus fruits, which Egypt is renowned for producing and exporting. Similarly, Türkiye is notable for its cultivation of high-quality nuts that are exported globally. The exchange of trade missions between the two countries would also enhance trade volume by facilitating increased communication between companies and governments. Furthermore, reducing dependence on the dollar and partially relying on national currencies (lira and pound) for bilateral trade can significantly contribute to creating mutual demand for both currencies.

In summary, there have been increasing and notable efforts to improve and strengthen Turkish-Egyptian relations; however, several challenges persist, including regional and international developments, differences in foreign policy objectives. Nevertheless, it is crucial that both countries continue to collaborate to enhance and strengthen their relations to achieve mutual interests, as they both recognize the importance of the other party politically and economically, both regionally and internationally.

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