Dynamics of Global Trade: Evolution, Policy, and Transformation

Editors: Asst. Prof. Dr. İsmail ÇİFÇİ
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Preface

International trade is a dynamic force that has facilitated cultural and technological interaction between nations for centuries and significantly impacted their welfare. As we leave the first quarter of the 21st century behind, the global economy is undergoing one of the most complex transformation processes in history. While the global economy experiences the elimination of borders in international trade thanks to digitalization, artificial intelligence, high technology, advancements in communication and transportation, and deep global value chains on the one hand; on the other, it is witnessing trade wars and protectionist trends. The liberal trade order, established after World War II and viewing interdependence as the guarantee of peace, is giving way to a new era characterized by increasing geoeconomics competition, strategic protectionism, and rising digital walls. This book, titled Dynamics of Global Trade: Evolution, Policy, and Transformation, examines a broad scope ranging from the historical roots of global trade to modern digital transformation, and from protectionist policies to the fight against poverty.

The study emphasizes how digital transformation has radically changed the nature of trade, how artificial intelligence and big data analytics have made global value chains more flexible and transparent, and how global trade has entered a new phase of trade wars with the 'China Shock' and strategic protectionist moves initiated by the USA. One of the distinctive features of the work is its demonstration that trade is not merely a technical process, but that cultural dynamics and institutional structure also hold importance in foreign trade. Furthermore, the thesis presented in the book-that the impact of globalization on poverty is not automatic but dependent on institutional capacity-enhances the socio-economic depth of the study. Finally, the relationship between growth and the current account balance specifically within the MINT countries (Mexico, Indonesia, Nigeria, Türkiye), along with Türkiye's search for new alliances such as the Shanghai Cooperation Organization, offers current policy recommendations for emerging markets. This book aims to serve as a guiding resource for researchers, policymakers, and the business world in the face of increasing Trade Policy Uncertainty in our world where global value chains have become interdependent.

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Chapter 1

The Evolution of Protectionism in International Trade 🔓

İsmail Çifçi[1], **Rabia İnci Özbek Çifçi[2]**

Abstract

This study examines the evolutionary process of protectionism in international trade from Antiquity to the present day. While the ontological necessity of trade and specialization are explained through the views of Plato and Aristotle, the transition from mercantilist zero-sum trade to the liberal views based on mutual gain by Smith and Ricardo is analyzed. The principle of reciprocity in tariffs, which prevailed from 1934 to 2018, has given way to the principle of restriction in tariffs following the China Shock triggered by China's accession to the World Trade Organization (WTO) in 2001 and the USA's subsequent shift towards strategic protectionism. China's emergence as a major actor in global production, trade, and technology, combined with the record US-China trade deficit reaching $418 billion in 2018 and domestic economic pressures in the US, have steered the US towards protectionist policies. Since deep Global Value Chains (GVC), established through modern transportation and communication technologies, have made countries interdependent, this tension between the US and China negatively affects global efficiency and production through a multiplier effect. The trade war causes the postponement of investment decisions, rising costs, declining efficiency, and a significant reduction in global welfare by increasing Trade Policy Uncertainty (TPU). The new tariffs implemented in 2025 indicate that these protectionist measures and the climate of uncertainty suppressing investments will evolve into a permanent structural element of the global economy.

1   Asst. Prof. Dr., Kütahya Dumlupınar University, Department of Economics, 43100 Kütahya, Türkiye, e-mail: ismail.cifci@dpu.edu.tr ORCID ID: 0000-0002-8853-030X

2   Asst. Prof. Dr., Kütahya Dumlupınar University, Department of Economics, 43100 Kütahya, Türkiye, e-mail: rabiainci@dpu.edu.tr ORCID ID: 0000-0003-3224-3333

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Introduction

Although the motivations for countries to trade with one another have varied across different periods, they are fundamentally aimed at meeting human needs. The idea that trade is a necessity among humans is rooted in Ancient Greek thought. In his work *The Republic*, Plato (427-348 BC) states that humans are not self-sufficient and therefore must engage in mutual exchange. Plato explains that people are not born equal; everyone possesses different natural talents and qualities, and has different levels of efficiency in different tasks. He argues that it is more beneficial for individuals to work in tasks where they have high efficiency and, through specialization, to exchange the goods they produce for other goods they need. Plato states that individuals come together because of their lack of self-sufficiency, and this gathering constitutes the state. In *The Republic*, Plato expresses that, just like individuals, states cannot be self-sufficient; therefore, states must produce more goods than their own requirements in order to import goods, and these surpluses must be traded.

Aristotle (384-322 BC), in his work *Politics*, explains that societies are not self-sufficient, and that the differentiation of resources and needs makes trade among humans mandatory. On the other hand, the necessity of trade among humans was also emphasized by Cicero (106-43 BC): *'Nature has not given all things to all men, in order that human society might be bound together by mutual services and exchange'* (Miller, 1913). The idea of the necessity of foreign trade also manifests itself in Late Antiquity. In Grotius's translation of Libanius's (AD 314–393) views on foreign trade, the necessity of foreign trade is explained as follows:

> *"God did not bestow all products upon all parts of the earth, but distributed His gifts over different regions, to the end that men might cultivate a social relationship because one would have need of the help of another. And so He called commerce into being, that all men might be able to have common enjoyment of the fruits of the earth, no matter where produced."*
>
> *Libanius (ad 314–393), Orations (III); Froese (2020, p. 7).*

Trade has been a vital activity for humanity throughout history; commercial activities, which were limited under the barter economy, gained a larger and global dimension with the invention of money. Beyond meeting the need for goods, commercial activities between countries or regions have also served as a vehicle for the dissemination of culture, technology, and religion. Significant developments shaped world trade in the period spanning from the Middle Ages to the Modern Age. In the Middle Ages, global commercial activities were neither widespread nor rapid. The

discovery of new land and sea routes, along with various military campaigns, contributed significantly to the development of trade. Although it is difficult to explain the commercial and economic systems of the Middle Ages period by period here, the Islamic World and the East (China) were at the center of world trade during this era. While China, Egypt, and Syria formed the hubs of trade via the Silk Road and the Spice Road, the Feudal system, characterized by lordships, prevailed in Europe. These European fiefdoms generally attempted to be self-sufficient, causing commercial activities to remain quite restricted. Commercial activities began to flourish with the Crusades, and city-states such as Venice and Genoa became the pioneers of trade. In addition to the activities of city-states, unions established in Europe (such as the Hanseatic League) and fairs also fostered the growth of trade. However, the European economy and trade of the Middle Ages came to a standstill in the 14th and 15th centuries due to the Hundred Years' War and the Black Death epidemic (Günay, 2022, p. 72-76; Genç, 2011, p. 133-135).

1. Origins of Trade Thought and Mercantilist Protectionism

Significant political, social, and economic developments occurred in 15th and 16th-century Europe, marking the transition from the Middle Ages to the Modern Age. This period is generally characterized as an era where rationalist thought prevailed over scholastic thought. Commercial activities increased significantly with the Renaissance, the Reformation, the discovery of the American continent, overseas expeditions, the collapse of feudalism, the establishment of nation-states, and the widespread use of gunpowder, the compass, and the printing press. In the geographical sphere, European countries initiated overseas expeditions in search of wealth with the aid of the compass. In this framework, the discovery of America and reaching India by circumnavigating the Cape of Good Hope caused major trade centers to shift from Mediterranean ports to port cities on the Atlantic Ocean and the North Sea, leading cities like London and Amsterdam to rapidly become trade hubs.

In the 15th and 16th centuries, centralized large states began to replace fiefdoms, thus initiating a process of transition from local economies to national economies, where the interests of national economies were prioritized. The ideas that influenced the economic life of Europe between the years 1450-1750 are referred to as mercantilism. Before the mercantilist period, world trade was limited. The exception to this was the Islamic World and the East (China, India) during the Middle Ages. Many ideas forming the basis of mercantilism stemmed from the events of the period; these can be

listed as: Geographical discoveries, the population explosion in Europe, the development of the merchant class, the cultural effects of the Renaissance, precious metals obtained through geographical discoveries, the formation of nation-states replacing feudalism and the increase in the authority of kings, and the change in religious views regarding issues such as profit and wealth accumulation (Tekeoğlu, 1993, p. 14-15; Seyidoğlu, 2009, p. 20).

The mercantilist period is the era in which commercial capitalism developed, preparing the conditions for capital accumulation and the market economy in Europe. Mercantilist views essentially served the purpose of increasing the authority of kings and supporting national unity during the formation process of new nation-states. Mercantilism determined the principles of economic policies for newly established nation-states for three hundred years. During the mercantilist period, commercial capital created monopolies in both domestic and foreign trade. While the creation of monopolies by commercial capital served the interests of nation-states on one hand, it was necessary to eliminate the high risks in trade with overseas countries on the other. The establishment of monopolies in trade constituted a significant source of revenue for nation-states.

In the mercantilist period, privileged trading companies (Chartered Companies) operating at the joint-stock company level not only held commercial monopolies but also became important instruments of colonization, serving as the source of capital accumulation. These joint-stock companies, which were significant revenue sources for nation-states, were not only granted trade monopolies but were also protected by state power. Companies in the mercantilist period did not content themselves with merely trading; they established armies, minted money, and could wage war. These companies can be considered the state-supported ancestors of today's multinational corporations. Mercantilists argued that the merchants' profit was identical to national interests and that this constituted the power of the country. Since there was an alignment between the interests of strong states and merchants, mercantilist thought shaped world trade for approximately three hundred years as the doctrine of absolute monarchies and newly developing states (Kazgan, 2002, p. 43).

The Mercantilist doctrine can be explained by three fundamental factors: the principle of a national and strong state, the passion for profit and the possession of precious metals, and the principle of foreign trade. The mode of thought advocating the supremacy of the church and supernatural phenomena in the Middle Ages gave way to the supremacy of wealth and the nation-state in the Mercantilist period. In this era, the supremacy of the

state and the desire for wealth were linked to the wealth of merchants. In the Mercantilist period, the source of wealth was precious metals. According to mercantilists, precious metals are permanent, while goods are transient. Therefore, precious metal deposits had to be operated, their outflow from the country prevented, and overseas countries exploited to obtain precious metals. According to the mercantilist view, the purpose of foreign trade was to ensure the inflow of more precious metals into the country. Countries that did not possess gold and silver stocks were required to develop their national industries and engage in exports. For this reason, it became mandatory for the state to be strong and to intervene in the economy. At the foundation of economic intervention lay the intervention in foreign trade. Foremost among these measures were the promotion of exports to increase the country's gold and silver stocks, the restriction of imports as much as possible, and the conduct of foreign trade via the country's own vessels. To achieve this, it was necessary to possess a strong army and navy, as well as a robust merchant fleet. Countries possessing these assets would acquire more colonies, hold control over maritime trade, and attain the desired wealth (Tekeoğlu, 1993, p. 18).

In the Mercantilist period, foreign trade was viewed not merely as an exchange but as a source of wealth and an economic war. During this era, a foreign trade surplus was regarded as the source of a country's wealth; the more a country exported and the less it imported, the more its gold and silver stocks would increase. Since global gold and silver stocks were limited, global wealth was also considered fixed. Therefore, a country could only become wealthy through the impoverishment of another. Consequently, foreign trade was perceived as a struggle where one side won and the other lost (a zero-sum game).

One of the most important policies for preserving national wealth during this period was restricting imports; specifically, while the importation of final goods was restricted, the importation of intermediate goods was permitted. Colonies existed solely for the benefit of the mother country, and they were prohibited from trading with other nations. These practices during the Mercantilist period caused significant changes in world trade; with geographical discoveries, important trade centers such as Venice and Genoa lost their prominence, shifting to colonial powers like Spain, Portugal, England, and the Netherlands. Foreign trade was not conducted peacefully during the Mercantilist period. The purpose of trade was a monopolistic activity based on exploitation and supported by the military, aimed at increasing the power of the states. In this period, countries utilized trade as a weapon to increase their political power and protect their industries.

"Trade Wars" in the Mercantilist period were waged in the literal, not metaphorical, sense. Colonial powers such as Spain, Portugal, England, and the Netherlands clashed numerous times to increase their commercial dominance. The fundamental logic of trade war was to increase one's own welfare while harming the neighbor (beggar-thy-neighbor policy) (Salvatore, 2013, p. 32-33).

2. The Industrial Revolution and Liberal Era: The First Golden Age

The emergence of the Industrial Revolution and the idea of free trade mutually reinforced one another in international economic thought. The mercantilist views that shaped the trade policies of European countries in the 15th and 18th centuries began to undergo a transformation with the rise of industrial capitalism from the second half of the 17th century onwards. The rising entrepreneurial class in Europe opposed state interventions, advocating for liberty, individual enterprise, and the restriction of public interventions to serve their own interests. Capital accumulation resulting from trade and colonialism, alongside the slave trade, created the bourgeoisie, which subsequently boosted investment and production. Developments in technology and innovation increased mass production, thereby pushing countries to seek new markets. However, at a time when all countries adhered to mercantilist views and maintained high tariff walls, there was a need for a market for the goods produced through mass production, as well as for the ideas that would constitute the infrastructure for such a market. Thinkers such as Petty, Locke, Hume, Law, Cantillon, Smith, Ricardo, and Mill pioneered liberal thought in foreign trade. Under mercantilist thought, a nation's wealth depended on its stock of gold and silver; if countries did not possess these mines, they were required to engage in export activities to earn them, while implementing highly restrictive policies to prevent the outflow of gold and silver (Küçükaksoy et al. 2015, p. 692). This situation led to international trade being viewed as a zero-sum game, where the prevailing view was that trade benefited one nation to the detriment of another.

In response to the Industrial Revolution, capital accumulation, mass production, and entrepreneurs' demands for free trade, Adam Smith, in his work *The Wealth of Nations* published in 1776, opposed Mercantilist views. He explained through the Theory of Absolute Advantage that the wealth of nations would increase mutually not by accumulating gold and silver, but through the division of labor, specialization, and free foreign trade conducted between countries. According to Smith, the foundation of trade and wealth rests on absolute advantage. Accordingly, if one nation is more efficient than another in the production of a good, it should specialize in

that good and exchange its surplus production for the good in which the other nation possesses an absolute advantage. This specialization, through the most efficient use of resources, would increase the total production of both goods, and this increase would constitute the gain shared between the nations. For this reason, Smith advocated for the minimum possible government intervention in the economy. David Ricardo, in his work in 1817, generalized Smith's theory and explained how free foreign trade would increase the welfare of countries through the Theory of Comparative Advantage. In Smith and Ricardo's theories, contrary to the mercantilist view where one wins while the other loses, countries win together by engaging in foreign trade. The factors ensuring that both countries win are the division of labor, specialization, and free foreign trade between countries.

The difficulty of consuming mass production in Europe within the domestic market and the constantly increasing need for raw materials pushed countries towards free trade. The trade-restricting policies and high customs duties of the Mercantilist period gave way to trade-liberalizing low customs tariffs. In addition to these, developments in logistics (steam trains and ships) caused unprecedented increases in world trade by transporting goods cheaply to all corners of the world. A rapid and stable growth in world trade occurred during a large part of the 19th century. The period between 1850 and 1914, during which world trade increased rapidly and globalization accelerated, is termed the First Golden Age. In the First Golden Age, global trade networks expanded, trade in goods and capital became relatively liberalized, and the Gold Standard mechanism, the payment system between countries, continued stably. However, World War I, the Great Depression, and World War II marked a period where world trade was severely restricted, trade wars and beggar-thy-neighbor policies intensified, and the First Golden Age came to an end in 1914.

3. The Era of Wars and Depressions: The Return of Protectionism

The period between World War I and World War II was an era characterized by a rapid decline in global trade volume, countries exhibiting autarkic tendencies, and a significant rise in protectionism. While world trade experienced rapid and stable growth prior to World War I, with the outbreak of the war, governments suspended trade-enhancing policies, and economic resources began to be utilized largely for military purposes. With the advent of World War I, countries began printing unbacked money to finance the war; this led to the collapse of the gold standard, triggered mutual currency wars, and resulted in the prevalence of ultra-nationalist and protectionist policies. In a study compiling world trade data between 1800

and 1938, Federico and Tena-Junguito (2016) demonstrated the trajectory of trade volume during the 1800–1938 period with the aid of the figure below.

Figure 1: World Trade Indexes from 1800 to 1938, 1913=100
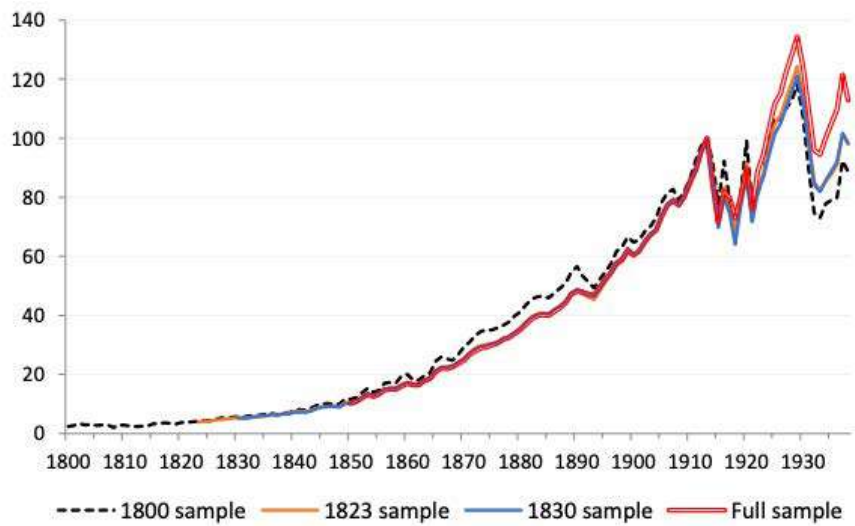
Federico and Tena-Junguito (2016) calculated the world trade index in the figure above using different sample periods, taking the year 1913 as the base. As can be seen from the graph, foreign trade volume grew steadily and rapidly during the approximately 100-year period from 1817 to 1913. The drivers behind this rapid growth in trade include innovations brought about by the Industrial Revolution, mass production, the development of road, maritime, and railway transportation, and the liberal policies pursued by countries. The outbreak of World War I caused world trade to decline by approximately 25%, and this decline continued until 1918. World trade returned to its pre-war 1913 level in 1925 and grew until 1929, the year of the Great Depression, reaching a level approximately 30% higher than the pre-war peak. However, the Great Depression of 1929 disrupted the positive trend in trade following the end of World War I, causing a massive contraction in world trade from 1929 to 1933, which is considered the deepest year of the Great Depression (Federico & Tena-Junguito, 2016, p. 31-35).

The collapse of the gold standard in the interwar period led to excessive volatility in exchange rates. Although countries desired to return to the stable pre-war era, trade polarizations, competitive devaluations, and the

Great Depression steered nations towards protectionism. The United States became the pioneer of protectionism in global trade with the adoption of the Smoot-Hawley Tariff Act in 1930. By raising import tariffs to approximately 59% by 1932, the U.S. pursued a beggar-thy-neighbor policy, the aim of which was to restrict imports, stimulate domestic production, and export unemployment. In response to the tariff hikes enacted by the U.S. through the Smoot-Hawley Tariff Act in 1930, 60 of the U.S.'s trading partners (particularly European countries) retaliated by doubling their own customs tariffs. As a result of mutual tariff increases, world trade contracted by a significant rate of 60%. While American imports in 1932 fell to 31% of their 1929 level, the decline in exports was even greater. Consequently, the trade war contributed significantly to the global spread and deepening of the 1929 crisis (Salvatore, 2013, p. 278-279).

Figure 2: The Kindleberger Spiral

World trade, January 1929–March 1933, total imports, 75 countries, monthly, old US gold dollars, millions
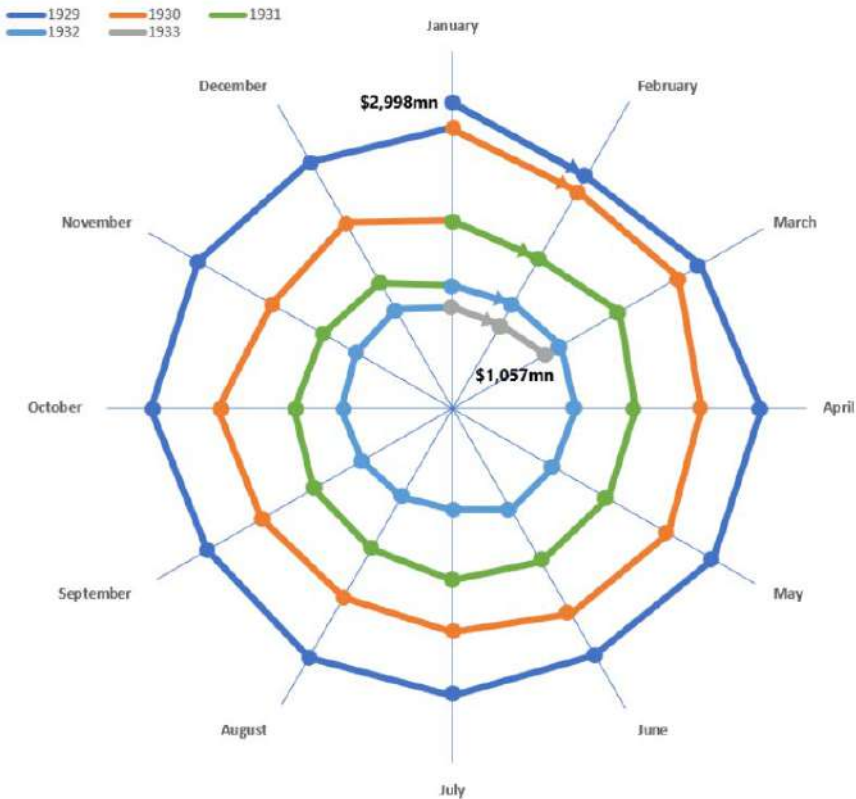
Source: League of Nations Monthly Bulletin of Statistics, February 1934, p. 51.
Recreated from: Kindleberger, Charles P, *The World in Depression 1929-1939*, London: Allen Lane The Penguin Press, 1973

Source: Trade B Blog (2025).

Charles P. Kindleberger (1973) illustrated how the trade war precipitated the collapse of world trade using a spiral diagram (referred to as the Kindleberger Spiral since that date). The Kindleberger Spiral depicts the monthly decline in world trade during the period from January 1929 to March 1933. The spiral shown above reveals that world trade contracted by approximately 65% between January 1929 and March 1933. The Kindleberger Spiral graphically illustrates the progressive month-by-month contraction of total imports across 75 countries. As can be observed from the graph, while the aggregate import value of these 75 countries stood at $2,998 million in January 1929, total imports decreased by approximately 65% to $1,057 million by March 1933.

During the World War II period (1939-1945), the conflict spread across a vast area. The gold standard collapsed, countries implemented competitive devaluation policies, and production and trade were reoriented towards wartime necessities. World War II caused a significant contraction in European economies and industries, the abandonment of liberal policies, and brought trade to a near standstill.

4. The Multilateral Trading System: GATT, WTO, and the Second Golden Age

World trade grew rapidly and steadily from 1817 until World War I. However, the outbreak of World War I led to the diversion of resources into the war economy, the collapse of the gold standard, and the adoption of intense protectionist measures by nations. These measures brought international trade to a standstill, resulting in the end of the First Golden Age. Figure 3 illustrates the foreign trade/GDP shares of Europe and five countries with significant shares in world production and trade for the period 1890-2010. Figure 3 demonstrates the sharp declines in countries' trade shares during World War I, the Great Depression, and World War II, indicating that countries were only able to return to pre-World War I levels in the 1970s and 1980s. Furthermore, Figure 3 shows that protectionist policies and beggar-thy-neighbor policies mutually reinforced one another, and that returning to previous levels was achievable only over a very long period through appropriate policies.

Figure 3: Trade in Goods and Services Relative to GDP
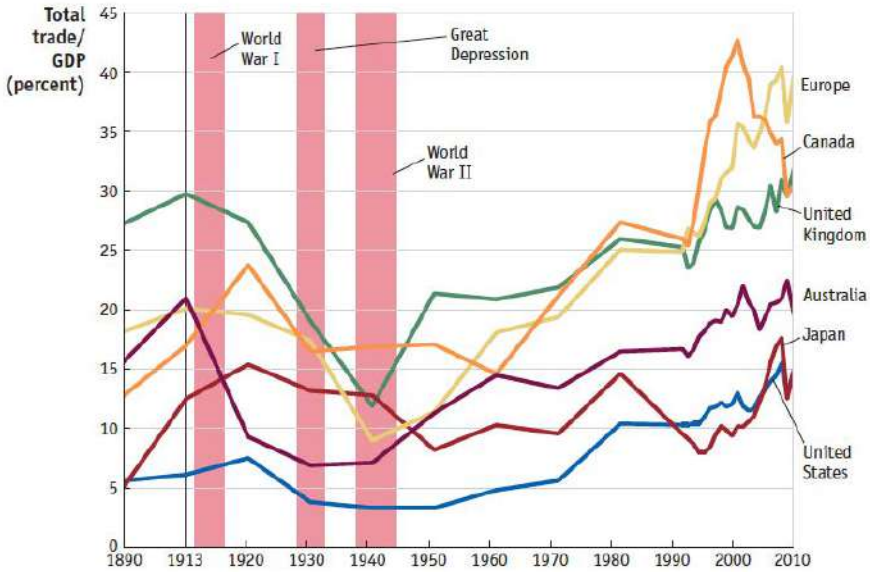
Source: Feenstra and Taylor (2014, p. 13).

Figure 4 illustrates the 150-year trajectory of protectionism and free trade trends globally for the period 1860-2010. It is observed that from 1860 to the outbreak of World War I in 1914, global customs tariffs fluctuated steadily around the 15% band. World War I, the Great Depression, and particularly the Smoot-Hawley Act caused global tariffs to peak. Figure 3 has already demonstrated how rising customs tariffs and non-tariff barriers worldwide reduced world trade.

Figure 4: Average Worldwide Tariffs, 1860–2010
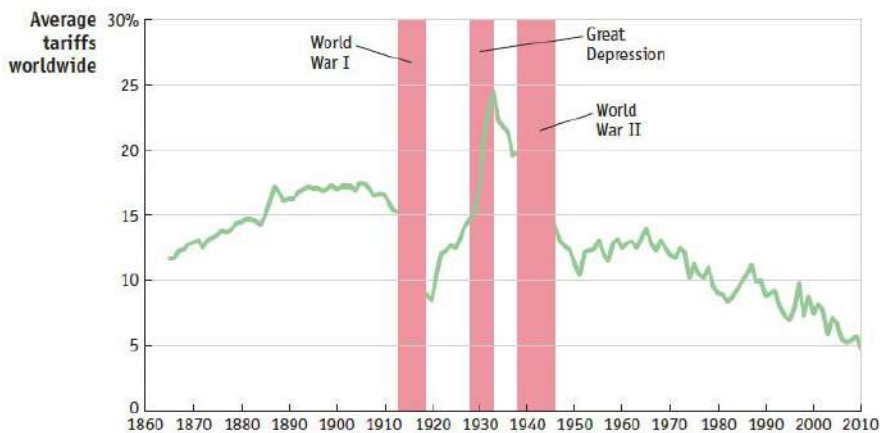
Source: Feenstra and Taylor (2014, p. 14).

During the First Golden Age, foreign trade was generally conducted through bilateral agreements and hegemonic power relations. There were no institutions liberalizing trade in this period, and trade agreements were made based on bilateral negotiations. However, World War I, the collapse of the gold standard, the Great Depression, and World War II demonstrated the necessity of establishing institutions to regulate and liberalize world trade. Even before World War II had ended, the Allied countries decided to establish two international economic organizations under the leadership of the USA and the United Kingdom at the Bretton Woods conference in 1944, in order to liberalize international trade and stabilize the post-gold standard global payment system in the new world order. At the Bretton Woods conferences, it was decided to establish the World Bank (IBRD) for the reconstruction of European countries devastated after the war, and the International Monetary Fund (IMF) to create a new international payment system and prevent countries experiencing balance of payments crises from blocking trade.

While cooperation was achieved for the international payment system and the reconstruction of devastated countries, similar cooperation came to the agenda for the liberalization of international trade; however, the World Trade Organization could not be established because a consensus could not be reached among countries. At the conference held in Havana between November 1947 and March 1948, attended by 56 members of the United Nations, the establishment of the International Trade Organisation (ITO) was discussed, resulting in the Havana Charter. The draft was criticized in the

US Congress, and due to concerns about restrictions on US sovereignty and pressure from local interest groups, the charter was withdrawn in December 1950, thereby eliminating the possibility of establishing the International Trade Organisation (ITO). On October 30, 1947, the General Agreement on Tariffs and Trade (GATT), containing mutual tariff reductions, was signed between 23 member countries and the USA, entering into force on January 10, 1948. In the period from January 10, 1948, to January 1, 1995, the General Agreement on Tariffs and Trade (GATT), and the World Trade Organization (WTO) which replaced it in 1995, constituted the foundation of the sole multilateral trading system agreed upon to regulate, simplify, and liberalize international trade (Karluk, 2009, p. 436; Seyidoğlu, 2009, p. 220; Jepma, et al., 1996, p. 315-316; Çifçi, 2024, p. 123-124).

The General Agreement on Tariffs and Trade (GATT) emerged after World War II with the aim of liberalizing trade and enhancing international cooperation among countries, working towards the simplification and liberalization of international trade. The general objective of GATT was to increase the welfare levels of member countries by increasing free trade among nations, ensuring the full utilization of global resources, and contributing to the development of production and international trade. Furthermore, the specific objective of GATT was to reduce tariffs and other trade barriers in order to achieve these general goals. GATT conducted multilateral negotiations to lower tariffs between countries and reduce other protective measures. GATT established a mechanism for the resolution of trade disputes among member countries and became an institution ensuring the orderly functioning and stability of international trade relations (Karagül, 2014, p. 101; Çifçi, 2024, p. 123-124).

The gradual reduction of tariff walls by the General Agreement on Tariffs and Trade (GATT) through multilateral negotiations initiated the Second Golden Age, a period of rapid trade growth post-1950. Figure 3 and Figure 4 demonstrate that customs tariffs were continuously and gradually reduced following World War II, illustrating a liberalization process in which global economic integration reached its highest historical levels. The continuous and stable decline in tariff rates, and more importantly, the reduction and elimination of non-tariff barriers, constituted a fundamental factor that increased the welfare levels and production capacities of countries by lowering trade costs (Feenstra & Taylor, 2014, p. 14).

The United States' adoption of the Smoot-Hawley Tariff Act in 1930, which raised import tariffs to approximately 59% by 1932, drove other countries towards retaliation and economic nationalism, causing average

global customs tariffs to rise to around 25%. The multilateral trade negotiations that commenced with the entry into force of GATT succeeded in significantly reducing customs tariffs. From its establishment in 1947 until its final meeting in 1994, GATT held eight major negotiation rounds. In each negotiation round, different issues in international trade were addressed, and significant decisions were made regarding trade liberalization.

Table 1: GATT Trade Rounds					
Round Name	Dates	No. of Countries	Trade Volume (Billion $)	Tariff Reduction Rate (%)	Outcomes
Geneva Round	1947	23	10	-26	Tariff reductions on 45,000 items
Annecy Round	1949	13	-	-3	Tariff reductions on 5,000 items
Torquay Round	1950-1951	38	-	-4	Tariff reductions on 8,700 items
Geneva Round	1955-1956	26	2.5	-3	Tariff reductions on 7,000 items
Dillon Round	1961-1962	26	4.9	-4	Tariff reductions on 4,400 items
Kennedy Round	1964-1967	62	40	-38	Tariffs, Non-Tariff Measures (Anti-dumping)
Tokyo Round	1973-1979	102	155	-34	Tariffs, Non-Tariff Measures
Uruguay Round	1986-1993	123	3700	-40	Trade in Services, Intellectual Property Rights, **Establishment of WTO**

Source: WTO (2024), Seyidoğlu (2009, p. 223), Hinrich Foundation (2024), Çifçi (2024, p. 129).

Upon examining the GATT rounds in Table 1, it is observed that the Geneva Round of 1947 was highly successful in reducing tariffs. However, it is not possible to speak of comparable success in the subsequent four negotiations. It is evident that starting from the Kennedy Round, GATT demonstrated significant success in trade liberalization. To illustrate,

while the average tariff rates on industrial goods were 40% in 1947 when GATT was established, this rate dropped to 4.7% in the Tokyo Round. As of 2010, the average customs tariff on industrial goods is approximately 3% in developed countries, whereas this rate is around 10% in developing countries. The tariffs applied by leading developed and developing countries across various sectors are presented below.

Table 2: Tariffs on Non-agricultural Products in Developed Countries in 2010 (%)				
Sector	USA	EU	Japan	Canada
Fish and fish products	1.0	10.5	5.5	0.9
Minerals and metals	1.7	2.0	1.0	1.0
Petroleum	1.4	2.0	0.6	0.5
Chemicals	2.8	4.6	2.2	1.0
Wood, paper, etc.	0.5	0.9	0.8	1.1
Textiles	7.9	6.6	5.5	4.3
Clothing	11.7	11.5	9.2	16.9
Leather, footwear, etc.	3.9	4.2	9.0	4.3
Nonelectric machinery	1.2	1.9	0.0	0.5
Electric machinery	1.7	2.8	0.2	1.1
Transport equipment	3.0	4.3	0.0	5.8
Other manufactures	2.4	2.7	1.2	2.9
Average	3.3	4.0	2.5	2.6

Source: Salvatore, (2013, p. 222).

Table 2 presents the average customs tariff rates applied by the world's leading developed economies to non-agricultural goods in 2010. As can be observed from Table 2, while developed countries maintain very low tariff rates in the industrial sector (capital-intensive), high customs tariffs are applied in sectors such as Textiles, Clothing and Leather, and footwear, etc. (labor-intensive). This demonstrates that developed countries aim to protect labor-intensive sectors within their domestic markets. Table 2 also reveals that there are geographical variations in the customs tariffs of developed countries. For instance, the EU and Japan significantly protect the Fish and fish products sector, indicating that this sector is protected for socio-political reasons in both regions.

Table 3: Tariffs on Non-agricultural Products in Developing Countries in 2010 (%)						
Sector	China	India	Brazil	Russia	Korea	Mexico
Fish and fish products	10.9	29.8	10.0	12.2	16.1	16.6
Minerals and metals	7.4	7.5	10.1	10.0	4.6	3.8
Petroleum	4.8	3.8	0.2	5.0	4.1	0.1
Chemicals	6.6	7.9	8.3	6.4	5.7	2.6
Wood, paper, etc.	4.4	9.1	10.7	13.2	2.2	5.5
Textiles	9.6	14.7	23.2	11.0	9.1	13.9
Clothing	16.0	13.4	35.0	11.8	12.6	30.0
Leather, footwear, etc.	13.2	10.2	15.7	8.6	7.9	8.8
Nonelectric machinery	8.0	7.3	12.7	3.4	6.0	3.1
Electric machinery	8.3	7.2	14.1	7.4	6.2	4.0
Transport equipment	11.5	20.7	18.1	11.1	5.5	9.6
Other manufactures	11.9	8.9	15.3	11.3	6.7	5.7
Average	8.7	10.1	14.2	8.9	6.6	7.1

Source: Salvatore, (2013, p. 223).

Table 3 presents the average customs tariffs applied by developing countries to non-agricultural goods in 2010. The data in the table indicates that these countries maintain higher tariffs to protect their industrial sectors. While it is observed that Korea and Mexico pursue relatively more liberal policies, it is noteworthy that Brazil and India are more protectionist. Similar to developed countries, the highest protection in developing countries is applied to the Clothing sector.

Figure 5: U.S. Ave7rage Tariff Rates on Dutiable Imports, 1900–2012.
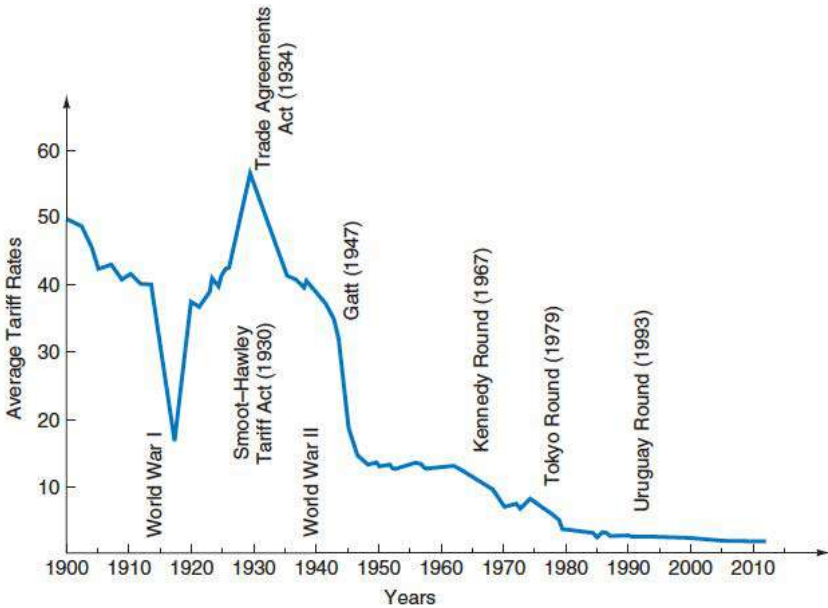
Source: Salvatore, (2013, p. 282).

Figure 5 illustrates the transformation of U.S. trade policy from 1900 to 2010. The most notable point in Figure 5 is the Smoot-Hawley Act, which was enacted to counteract the effects of the Great Depression. In 1934, the U.S. moved away from the Smoot-Hawley Act with the adoption of the Reciprocal Trade Agreements Act, initiating a period of steady reduction in customs tariffs. The decline in U.S. tariffs accelerated from 1947 onwards with the commencement of GATT activities.

Following the establishment of GATT and its successor, the World Trade Organization (WTO), world trade witnessed its Second Golden Age. Advances in technology and communication facilitated the fragmentation of production (outsourcing and offshoring), thereby enhancing international trade not only quantitatively but also qualitatively. The expansion of global value chains meant that components of complex products were now manufactured across different countries; this emergence of international economies of scale contributed significantly to global efficiency. During this period, unprecedented growth was realized not only in the trade of goods but also in capital trade.

5. Axis Shift in Global Trade: The China Shock and U.S. Strategic Protectionism

The period from 1947 until the tariff hikes and trade wars initiated by U.S. President Donald Trump in 2018 represents an era where global trade in goods and capital increased rapidly, trade integration among countries intensified, and free trade prevailed globally. Throughout this process, the U.S. was the pioneer and supporter of multilateral trade liberalization negotiations. China entered a process of opening up in 1978, and through the liberal policies it implemented and its accession to the World Trade Organization in 2001, it reduced its average customs tariffs from 40% in 1990 to 10% (Bown, 2019, p. 3-4). Opening up to the world in 1978, China achieved a comparative advantage in the manufacturing industry in the 1990s, becoming the 'world's factory'. As illustrated in Figure 6, while China produced approximately 5% of world manufacturing in 1990 when it began to gain comparative advantage in the manufacturing sector, by 2012 it had come to produce approximately 25% of world manufacturing. China's share in global manufacturing exports, which was 3% in 1990, rose to 23% in 2012 (Autor et al. 2016, p. 5-8).

Figure 6: China's Share of World Manufacturing Activity
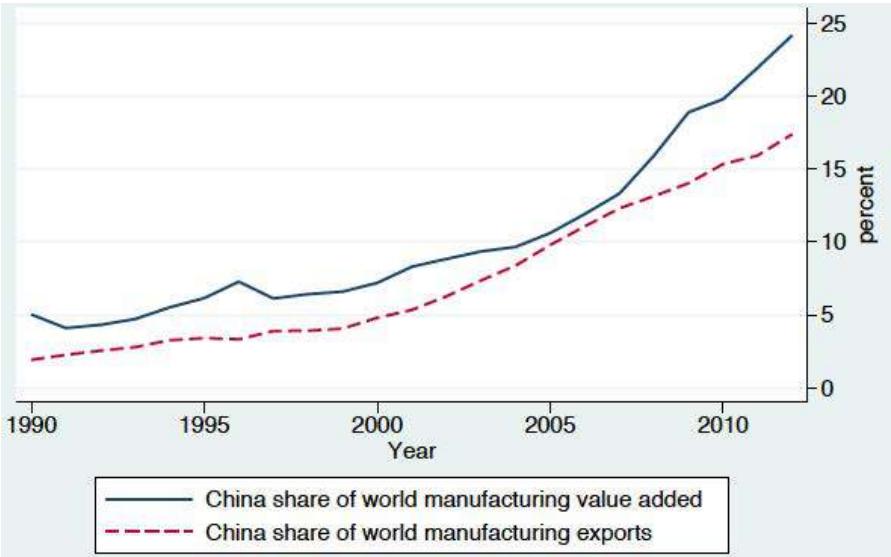
Source: Autor et al. (2016, p. 5).

Following China's accession to the WTO, its manufacturing exports grew by an annual average of 30% during the 2001–2006 period. Subsidies provided by China to its manufacturing industry, the application of low taxes

on inputs, and the acceleration of the learning-by-doing process increased the productivity of Chinese firms, thereby enhancing China's competitiveness. This colossal trade shock exhibited by China drew attention as it caused employment and wage losses in the manufacturing industries of the U.S. and other countries (Amiti et al. 2018, p. 2). Figure 7 illustrates the U.S. manufacturing industry employment rates for the period 1939–2025. It is observed that U.S. manufacturing employment rose rapidly during the war period of 1939–1945 due to the war economy, but steadily declined in the post-World War II period from a rate of 30%, falling to as low as 8% by 2025.

Figure 7: Manufacturing Share of U.S. Nonfarm Employment, 1939 - 2025
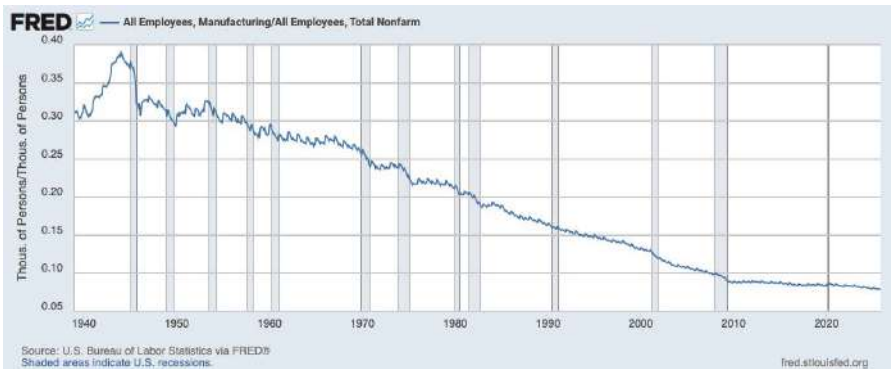
Source: FRED Economic Data (2025), https://fred.stlouisfed.org/graph/?g=1Gor#

The China shock caused the U.S. labor market to undergo a severe adjustment process, leading to rising unemployment rates and wage suppression, particularly in regions with a high concentration of low-skilled workers (Autor et al. 2016, p. 1).

China's accession to the WTO marked a watershed moment for the U.S. economy. Prior to joining the WTO, China's access to the U.S. market was contingent upon the annual renewal of Most Favored Nation (MFN) status; this condition created significant policy uncertainty for U.S. investors seeking to do business with China, thereby deterring U.S. investment in China. The U.S. Congress's granting of Permanent Normal Trade Relations (PNTR) status to China in 2000 permanently eliminated the risk of customs tariffs suddenly reverting to Smoot-Hawley levels. This development removed policy uncertainty for U.S. investors and provided the necessary incentive for U.S. firms to relocate their operations to China or establish long-term strategic partnerships with Chinese manufacturers (Pierce & Schott, 2016, 1632-1633; Handley & Limao, 2017, p. 2732).

Figure 8: China Most Favored Nation (MFN) Uncertainty Index

China NTR uncertainty index
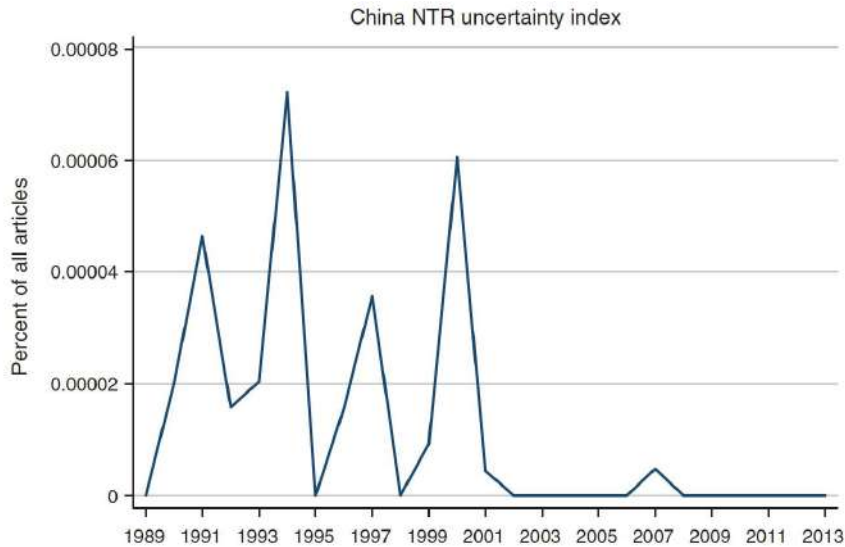
Source: Pierce and Schot (2016, 1637).

Figure 8 illustrates China's Most Favored Nation (MFN) uncertainty index, thereby depicting trade policy uncertainty. It is observed that prior to China's accession to the WTO, trade risk was high, volatile, and uncertain. Periods of elevated trade risk corresponded to periods of tension between the U.S. and China. Prior to 2001, the failure to grant NTR (Normal Trade Relations) status to China implied that average customs tariffs would surge from the 4% level to the Smoot-Hawley level of 37%. With China's membership in the WTO in 2001, trade risk was eliminated, and China began to access the U.S. market under Most Favored Nation status with low customs tariffs and without carrying trade risk. The acquisition of Most Favored Nation status enabled the deepening of commercial relations between China and the U.S. and the establishment of long-term relationships. Due to low labor costs in China, this situation led U.S. firms to shift production to China (Offshoring) and engage in Outsourcing, effectively moving global production to China. While the relocation of U.S. firms to China increased the global competitiveness of U.S. firms, it also facilitated the transfer of capital and technology to China, thereby enabling China to become a center of technology and innovation (Pierce & Schott, 2016, 1632-1633).

The utilization of the tariff instrument by U.S. President Trump in 2018, and the subsequent continuation of protectionist policies by President Joe Biden, has established the tariff not merely as a fiscal instrument, but also as a political and strategic policy tool. According to Irwin (2017, p. 9), the

purposes for which countries impose tariffs are Revenue, Restriction, and Reciprocity. Historically, customs duties constituted one of the significant sources of revenue for the public treasury. However, since the beginning of the 20th century, the share of customs duties within budget revenues has diminished. From the 20th century onwards, governments have imposed customs tariffs not to generate income, but for the purposes of Restriction and Reciprocity. The most controversial objective of customs duties is to protect domestic producers from foreign competition. The fundamental motivation for protecting domestic producers involves safeguarding the interests of distinct economic classes within society (industrial manufacturing, agriculture, trade, etc.), economic geography, lobbying activities, and their political representation, as well as protecting industries deemed strategic by the government. Reciprocity, the other function of customs duties, refers to their utilization as a bargaining chip in negotiations regarding tariff reductions or market access between countries (Irwin, 2017, p. 8-9).

The fundamental reasons behind the tariff increases initiated by Donald Trump in 2018 in certain sectors, and subsequently continued, include the preservation of technological superiority, political pressures arising from significant employment and production losses, the elimination of high levels of bilateral trade deficits, and national security concerns (Kapustina et al. 2020, p. 1).

Figure 9: US-China Trade Balance 1985-2024
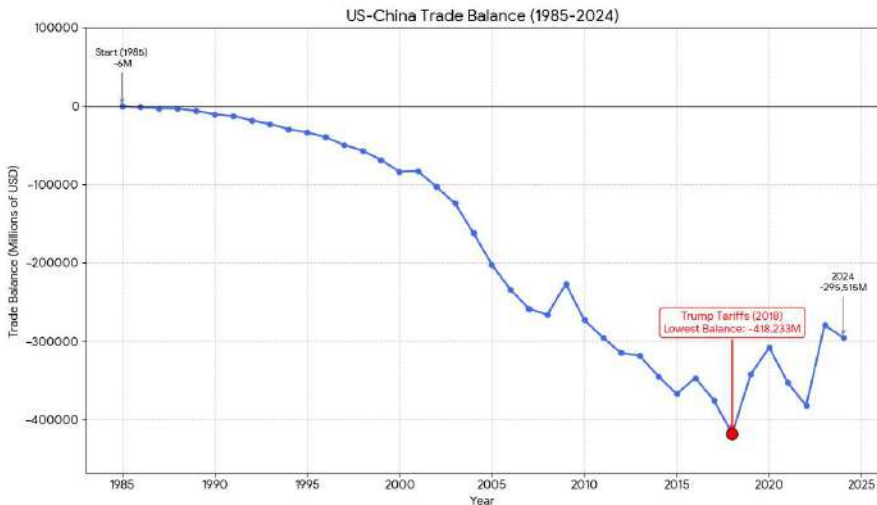
Source: United States Census Bureau (2025), https://www.census.gov/foreign-trade/balance/c5700.html

Figure 9 illustrates the foreign trade balance between China and the U.S. for the period 1985–2024. In 1985, the year the graph commences, the U.S. trade deficit with China was approximately $6 million; by 2001, this deficit had reached $83 billion. With China's accession to the WTO in 2001 and its acquisition of Most Favored Nation status, the U.S. foreign trade deficit increased rapidly. Although the U.S. trade deficit with China decreased slightly due to the 2009 global economic crisis, the deficit reached a peak of $418.2 billion in 2018, the year Trump imposed customs tariffs. By 2024, it is observed that the U.S. deficit with China has declined to $295.5 billion. The Trump administration argued that these customs tariffs were implemented to rectify the imbalance stemming from unfair trade practices and to prevent employment losses in the U.S. manufacturing sector. Another economic rationale for the tariffs highlights global overcapacity caused by China's State-Owned Enterprises (SOEs) and industrial subsidies, as well as the low exchange rate resulting from China's currency being kept undervalued for a prolonged period. It was argued that this situation pushed global prices down, thereby driving U.S. producers out of the market (Bown, 2019, p. 1).

Another critical driver of the Trade War is the United States' objective to preserve its global technological leadership and constrain China's technological capacity. Kapustina et al. (2020, p. 2) indicate that the U.S. is concerned regarding China's ambition to achieve global leadership in 10 strategic industries—such as robotics, artificial intelligence, and lithium batteries—under the 'Made in China 2025' plan. The U.S. asserts that China compels American companies to establish joint ventures for technology transfer, violates intellectual property rights, and appropriates scientific and technical knowledge from American firms. The Trump administration argues that tariff hikes are necessary as the World Trade Organization (WTO) has proven insufficient in addressing the systemic non-market challenges posed by China (subsidies, mandatory technology transfer requirements, etc.) (Bown, 2021, p. 9). Through the imposition of customs tariffs and the provision of incentives to U.S. technology firms, the U.S. aims to maintain its global technological dominance. As another rationale for customs tariffs, the U.S. administration has contended that domestic steel and aluminum capacity is vital for the defense industry, and that foreign dependence on these critical raw materials undermines the defense base. Furthermore, the risk of domestic producers being driven out of the market due to global overcapacity and subsidies has been linked to the long-term erosion of U.S. military and economic power. Another significant factor underlying the sectoral distribution of customs tariffs is electoral strategies within U.S. domestic politics.

The customs tariffs initiated by the U.S. in 2018, which caused a disruption in international trade, rest upon three fundamental pillars. The implemented customs tariffs not only affected bilateral trade relations but also impacted global value chains and the multilateral trading system (Bown, 2023, 2019; Wu et al. 2020, 2). Table 4 presents a chronological summary of U.S. customs tariff implementations extending from 2018 to 2025:

Table 4: Chronology of US Tariff Implementations (2018 - 2025)				
Date	Legal Rationale	Scope / Sector	Initial Tariff Rate	Notes / Key Updates
February 2018	Section 201 (Safeguard)	Solar Panels and Washing Machines	30% (Solar), 20-50% (Washers)	The first use of Section 201 since 2001; washing machine tariffs ended in 2023.
March 2018	Section 232 (National Security)	Steel and Aluminum (Global)	25% (Steel), 10% (Aluminum)	Primarily targeted allies; China was less affected due to pre-existing anti-dumping duties.
July 2018	Section 301 (China - List 1)	Industrial Tech / Machinery ($34B)	25%	Targeted products linked to the "Made in China 2025" strategic plan.
August 2018	Section 301 (China - List 2)	Semiconductors / Chemicals ($16B)	25%	Completed the initial $50 billion trade coverage announced in April 2018.
September 2018	Section 301 (China - List 3)	Intermediate & Consumer Goods ($200B)	10%	The rate was later increased to 25% in June 2019 following a breakdown in negotiations.
September 2019	Section 301 (China - List 4A)	Apparel, Footwear, etc. ($112B)	15%	Reduced to 7.5% on February 14, 2020, as part of the Phase One Agreement implementation.
December 2019	Section 301 (China - List 4B)	Toys and Consumer Electronics ($160B)	15% (Proposed)	Cancelled in December 2013 following the announcement of the Phase One Deal.

May 2024	Section 301 (Biden Revision)	EVs, Batteries, Chips, Steel, Solar	100% (for EVs)	Aimed at protecting strategic high-tech sectors from Chinese industrial overcapacity.
February 2025	Section 301 / IEEPA (Trump 2.0)	All Chinese Imports & Universal Baseline	60% - 100%+ (China), 10% - 20% (Global)	Projected escalation involving a universal baseline tariff on all imports and punitive rates on China.

Source: Bown (2023).

Fajgelbaum et al. (2019, p. 1) state that the full incidence of the customs tariffs implemented in 2018 fell not on exporters, but entirely on U.S. importers and consumers. This indicates that the terms-of-trade gain expected in trade theory did not materialize in the short run; on the contrary, U.S. firms and households faced an annual cost of approximately $51 billion (Fajgelbaum et al. 2019, p. 1; Amiti et al. 2019, p. 9). Furthermore, approximately 90% of the tariffs imposed in 2018 targeted intermediate goods, a move that disrupted the structure of global value chains (GVCs). The targeting of intermediate goods increased the input costs of U.S. firms, thereby weakening their global competitiveness and causing the redirection of approximately $165 billion in trade volume (Bown, 2019, p. 12).

Conclusion

This study examines the evolution of foreign trade from a broad perspective, ranging from Ancient Greece to Mercantilism, the Liberal Era comprising the First Golden Age and Second Golden Age, and finally to contemporary protectionist trends. Trade between communities dates back as far as human history. The purposes for which countries impose customs tariffs are Revenue, Restriction, and Reciprocity. While the purpose of customs duties in the Ancient Era was to generate revenue for the treasury, customs tariffs were implemented for protection purposes during the Mercantilist era. During the First Golden Age, a liberal era, tariffs for protection purposes weakened; meanwhile, from 1934 (when the U.S. abandoned the Smoot-Hawley Act via the Reciprocal Trade Agreements Act) until 2018, tariffs were applied with the objective of Reciprocity. Established after World War II, GATT and subsequently the WTO contributed significantly to global integration by gradually reducing customs tariffs and non-tariff measures until 2018. From 2018 onwards, with the policies of Trump initiating a trade war through raised customs tariffs, the world has entered an era of customs tariffs applied for the purpose of Restriction.

China's accession to the WTO in 2001 and its acquisition of Most Favored Nation status caused a significant structural transformation in global trade. China's integration into global trade transformed it into the world's production and trade hub, a situation that affected the entire world, particularly the United States. In this process, the decline in U.S. manufacturing employment from 30% to 8% was termed the 'China Shock', leading to socio-economic changes within the U.S. This situation, combined with the U.S. trade deficit with China peaking at $418 billion in 2018, and China becoming capable of competing with the U.S. in industry and technology, prompted the U.S. to implement protectionist policies.

Advances in technology, communication, and transportation have facilitated the rapid and simplified movement of goods and capital between countries, thereby creating a deep global value chain and rendering nations interdependent. Consequently, when a shock occurs in major actors within the global value chain, its repercussions spread globally through a multiplier effect. It is inevitable that the trade war between the U.S. and China, the world's two largest economies, will negatively impact not only these nations but also global production and efficiency. The engagement of the world's two leading economies in a trade war primarily increases Trade Policy Uncertainty, leading to the postponement of investment decisions and causing global production to remain below its potential. The trade war disrupts the global value chain, resulting in declining productivity, rising costs, and the misallocation of resources, which in turn leads to a significant reduction in global welfare. The new tariffs implemented by the U.S. in 2025 indicate that protectionist measures will persist, Trade Policy Uncertainty will become permanent, and global investments will be suppressed.

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Chapter 2

A Historical Analysis of Trade Wars

Ezgi Babayiğit[1]

Abstract

This study examines the historical development of trade wars from the mercantilist period onward within a political economy framework, focusing on their renewed prominence on the global agenda in recent years through U.S.- China rivalry. Based on the observation that international trade has historically emerged not from purely economic motivations but primarily from considerations such as national security and the pursuit of strategic and political power, the study argues that trade wars have likewise been shaped as outcomes of similar drivers.

While the colonial logic of the mercantilist period regarded trade as an instrument for acquiring military power, the process of industrialization made the search for raw materials, markets, and competitive advantage the principal triggers of such wars. Toward the end of the nineteenth century, the strengthening of the nation-state steered countries toward establishing economic supremacy through the protection and development of national industries, thereby turning trade wars into actions driven by nationalist reflexes. In the twentieth century, the two World Wars and the Great Depression demonstrated how war economies were directly reflected in trade through rising tariff barriers and protectionist policies, while post–Cold War bloc formations and the growing importance of strategic sectors further shaped the trajectory of trade wars. During the neoliberal era, the instruments employed in trade wars took the form of implicit versions of protectionist policies, whereas in the twenty-first century—particularly following the 2008 Global Financial Crisis and China's integration into global trade—the structure of trade wars has shifted toward a framework centered on global supply chains and technology.

The central argument of the study is that trade wars, in every historical period and under all adopted policy paradigms, constitute systematic forms of conflict shaped by the objectives of protecting national interests, ensuring security, and establishing sovereignty through the use of economic instruments, and that these conflicts are transmitted in cyclical patterns from the past to the present and into the future.

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1   Asst. Prof. Dr., Kütahya Dumlupınar University, Department of Economics, 43100, Kütahya, Türkiye, e-mail: ezgi.babayigit@dpu.edu.tr, ORCID ID: 0000-0003-4163-1661

Introduction

From antiquity onward, the exchange of goods and services aimed at meeting basic human needs has given rise to commercial interest relations that have also brought about competition and conflict among societies. Trade wars constitute forms of conflict that persist based on reciprocity through the use of tariffs, quotas, and other trade barriers between countries, arising from the interaction between economic competition and struggles for political hegemony. While their reciprocal nature confers a global character upon such conflicts (Wallen & Wiberg, 2018), the capacity to compete in global markets has come to be regarded as one of the most fundamental indicators of economic growth (Gingrich, 1995); economic growth, in turn, has become the most important social policy objective to be pursued after national security (Chijioke et al., 2021). Accordingly, the need for the existence of the state as a form of political organization has simultaneously rendered inevitable its role as a rule-setting authority in international trade, employing various interventions and instruments to enhance national security and promote economic growth.

In the current economic and political conjuncture, trade wars—operating through U.S.–China rivalry and encompassing various forms such as inter-state embargoes, tariffs, quotas, and import bans—have evolved into a multi-layered arena of competition that extends beyond traditional protectionist instruments to include climate and technology policies, such as the green transition and digital markets. The first systematic examples of trade wars in this sense can be traced back to the 16th century, to the mercantilist period. Examining the historical evolution of trade wars—defined as a systematic process of competition in which states' pursuits of superiority and power in international trade to protect their national interests are combined with protectionist measures—is of importance for understanding both the developmental trajectory of international economics and the dynamics of contemporary global competition.

From a historical perspective, the period that constitutes the intellectual foundation of trade wars and in which their first practical applications emerged coincides with the mercantilist era. The fundamental principle of mercantilism—the dominant ideology of the 16th and 17th centuries—which identified the accumulation of gold and silver as the source of national wealth, positioned foreign trade as the most important strategic economic activity in terms of access to these precious metals and the preservation of national power. The overseas trade in precious metals based on the colonial expansion of Spain and Portugal paved the way for European states such as

England, the Netherlands, and France to emerge as rivals to one another in foreign trade through similar strategies, thereby laying the foundations of contemporary trade wars.

The Industrial Revolution, which began in the late eighteenth century, represents the most critical turning point in which international competitive conditions shifted in favor of England and the structural foundations of modern capitalism were laid through the notion of free trade. Characterized by technological superiority and a competitive framework based on global division of labor and specialization, this period paved the way for the institutionalization of foreign trade and emerged as an era in which international balances were redefined through the conjunction of economic power and accompanying political power. The competitive environment generated by the Revolution evolved into tariff wars, driven by the high protectionist measures that European countries were compelled to adopt against England.

International trade in the aftermath of the First World War, having become contracted and militarized, brought about a period in which protectionist measures could not be overcome, the international balance of payments became blocked, and trade volumes shrank, leading to severe constraints on trade flows. Following the war, global commercial relations—initially in a fragile phase of recovery but deeply shaken by the Great Depression of 1929—once again compelled countries to adopt protectionist measures; this gave rise to an order characterized by high tariffs and import quotas, in which military power came to prevail over economic power. As inter-state bloc formation intensified, international trade—conducted largely based on bilateral agreements—came to be shaped by a key development that deepened ongoing trade wars and heightened geopolitical tensions between the United States and other countries, particularly Europe and Canada: the Smoot–Hawley Tarifs imposed by the United States on imports in 1930. By responding with similarly harsh retaliatory measures in the form of high tariffs, major trading partners—most notably Europe and Canada—along with more than twenty-five countries that implemented such protectionist policies indirectly, pushed global trade into what was, in effect, a process of collapse, as rising nationalist waves led countries toward an economic order closed to external competition. This uncontrolled and excessive protectionist approach became one of the principal factors triggering the Second World War, while also directly influencing the post-war formation of institutions such as the GATT and the WTO (Çifçi, 2024, 123).

The Cold War period encompasses an era in which international trade

was marked by an ideological divide between Western Bloc countries that supported liberalization within the framework of the GATT and the World Bank, and Eastern Bloc countries that adopted a closed and planned trade regime through the Council for Mutual Economic Assistance (Comecon). The trade polarization brought about by the bipolar world order is an indication that trade wars continue to persist in a transformed form. As emphasized by Wade (2004, p. 1), states may employ free trade, protectionism, and subsidies in various ways depending on their national conditions and levels of industrialization.

With the dissolution of the Soviet Union in 1991, the Eastern Bloc was compelled to integrate into the Western liberal system, and the global system came to operate through a single structure dominated by free-market principles and based on the principle of mutual benefit. With the establishment of a new institutional trade organization in 1995—the World Trade Organization (WTO)—whose scope and binding power were expanded, national economies began to integrate at an accelerated pace.

The technological superiority and mass production brought about by the process of industrialization, together with the search for raw materials and markets, gave rise to the conditions for the emergence of geoeconomic competition among states. Thus, by the twenty-first century, the mercantilist era's competition based on short-term commercial gains had given way to a form of competition grounded in long-term global strategic superiority and control. With China's rapid rise, the struggle to establish technological superiority, the objective of protecting domestic markets, the increase in capital controls as a result of the vulnerabilities created by financial liberalization, and the growing importance of global supply chains have brought trade wars back to the center of international debates through a multidimensional understanding of protectionism.

The aim of this chapter is to provide a comprehensive assessment by addressing the protectionist tendencies that have re-emerged in recent years together with their historical roots and within a political economy perspective. Another point emphasized in this study is how, across different periods, trade has been instrumentalized for purposes beyond purely economic objectives and has served as a central component of geoeconomic strategies. From the post–Second World War period onward, the long-standing dominance of the liberalization paradigm in global trade has been interrupted by recent protectionist policies rooted in geostrategic and geopolitical considerations; neo-mercantilist approaches have thus introduced a new dimension to trade wars. In this respect, the study argues that trade wars have persisted in a cyclically from the mercantilist era to the present.

1. Mercantilism and Early Trade Wars (16th–18th Centuries)

Mercantilism is the fundamental school of economic thought and policy that emerged in Europe between the sixteenth and eighteenth centuries. The rise of the nation-state concept in Europe following the Thirty Years' War (1618–1648) constitutes the main phenomenon that also influenced the emergence of mercantilist thought. Mercantilism provided the rational framework that enabled the nation-state system to survive economically and to advance. In this context, states' tendencies to exploit competition and conflict in international trade to consolidate national power directly contributed to the institutionalization of mercantilism through a state-centered structure and to the formation of the intellectual foundations of early political economy. According to Onuoha (2008), from the Peace of Westphalia, which ended the Thirty Years' War in 1648, to the present day, the state has continued to be the dominant actor in international relations. During this period, the pursuit of wealth accumulation with the aim of economic development and the protection of national interests—through an export-oriented and aggressive stance in the search for new raw materials and markets—also constituted the historical foundation of modern globalization dynamics such as imperialism and colonialism (Chijioke et al., 2021).

According to mercantilism, total wealth in the world—particularly that based on gold and silver—is fixed. Although this wealth does not increase, it changes hands; that is, one nation's gain necessarily implies another nation's loss. In this context, mercantilism is an economic system that characterizes trade as a zero-sum competition and prescribes increasing exports in order to accumulate precious metals as the source of a nation's wealth and prosperity, while correspondingly reducing imports to maintain an external trade balance. In this regard, mercantilism served as the principal source of motivation that fueled and legitimized economic competition, including customs tariffs, monopolies, and colonial activities (Rojas, 2007; Biju et al., 2023).

The zero-sum competitive logic of mercantilist thought is structured in a way that encourages the joint use of economic and military power to establish dominance in interstate commercial power. In this context, the struggle by England and other European countries to seize the bullion gold and silver brought from the Americas by Spain constitutes one of the most striking examples of trade wars that emerged during the mercantilist period. These conflicts were aimed at military confrontation and the control of trade routes. In this respect, during this period, the struggle to establish military and political power was more dominant than commercial competition based on classical tariff policies.

Trade wars during the mercantilist period were conducted in conjunction with both economic and military policies (Hong, 2025). The maritime rivalry between England and the Netherlands in the seventeenth century became one of the classic examples of trade wars in the mercantilist era. The restrictions imposed by England on Dutch shipping through the Navigation Acts (1651) constituted a protectionist move in England's maritime trade policy. This action by England represents one of the earliest examples of mercantilist trade wars escalating into military conflict (Irwin, 1996).

England's state-sponsored establishment of the East India Company represents a corporate-scale manifestation of mercantilism; it also clearly demonstrates that, during this period, trade was conducted as an activity led and supported by the state (Findlay & O'Rourke, 2007). Through trade incentives centered on employment, London became a strategic decision-making hub directing international commercial relations during this era (Bromley, 2023).

The Ottoman Empire was also affected by the commercial competition experienced in Europe during this period. Although the Ottoman state was not a direct practitioner of mercantilist policies, the process that began with the capitulations demonstrates that commercial rivalry manifested itself in the Ottoman context indirectly (Pamuk, 1987).

The mercantilist rationale that legitimized trade wars was subjected to criticism as early as the second half of the eighteenth century, most notably by the Physiocrats. For the Physiocrats, who grounded the source of wealth in land and agriculture, the primary objective of mercantilism was not to ensure social welfare but to generate profit. At the same time, they emphasized that mercantilism's trade-dependent structure constituted a fundamental source of uncertainty and instability in the long run. In this context, the Physiocrats argued that states should direct their policy measures and resource allocation toward land and agriculture rather than commercial restrictions. With the publication of *The Wealth of Nations* in 1776, Adam Smith advanced a system that criticized the protectionist approach of mercantilist thought and instead advocated liberalization. According to Smith, protectionism created under the banner of the mercantilist system and the resulting obstruction of the free circulation of goods adversely affect both national and global welfare. These examples are important in demonstrating that trade wars find resonance not only in political choices but also at the level of intellectual foundations.

1.1. Siege Economies: The War Practices of Mercantilism (Late 18th Century–Early 19th Century)

The late eighteenth century marks a period in which economic and military power operated jointly, transforming such power into an instrument of trade policy. This era contains the first concrete case examples that form the historical roots of trade wars and explain the reasons why trade came to be conducted with a security-oriented logic. When evaluated within a framework of historical continuity, the application of mercantilism under conditions of war is significant in demonstrating why trade has continued to be understood as a form of "war" extending into the twentieth century and beyond.

The zero-sum competitive logic of mercantilism transformed international commercial rivalry into an instrument employed not only in times of peace but also during periods of war. The Napoleonic Wars stand as the most typical example of this era. The British naval blockade and Napoleon's Continental System symbolize the use of interstate trade—through embargoes and the commercial control of the seas—as a concrete instrument for achieving military and political objectives.

According to Crouzet, the effects of blockade policies were not confined to the two countries directly involved but disrupted international trade in a manner that also encompassed third countries (Crouzet, 1987). In a similar vein, McCusker (1996) emphasizes that the national interest–oriented and dependency-centered policies implemented by the British government toward the American colonies through the Navigation Acts constituted a typical reflection of mercantilist thought. As a neutral country, the United States' maritime trade was adversely affected by the commercial restrictions imposed by Britain and France, which subsequently led to a hardening of policy measures in the United States as well. This trade-induced rivalry ultimately drew the United States into the War of 1812. This development contributed to the widespread perception that trade constitutes a form of competition aimed not only at economic objectives but also at securing geopolitical power and national security (Irwin, 2017).

Early trade wars represented a form of conflict in which not only economic power but also military force was directly employed (Baikushikova et al., 2021). The Anglo–Dutch Wars (1652–1674), which began with a struggle for commercial hegemony in Asia and the Atlantic as a concrete manifestation of mercantilist thought, demonstrate how commercial rivalry gradually evolved into armed conflict and became an integral component of military policy as well (Oerman & Wolff, 2022).

The Treaty of Utrecht, which brought the War of the Spanish Succession to an end in 1713, is significant in exemplifying the processes through which military wars generated commercial privileges. The Asiento right obtained by England under this treaty demonstrates that military gains operated in coordination with commercial gains.

The examples discussed above illustrate how, under mercantilist logic, trade was employed as a fundamental instrument of warfare during military conflicts. The Opium Wars and the subsequent war practices to be examined in the following section are significant in demonstrating how this approach became systematized and evolved into a more comprehensive form.

2. The Forced Establishment of the Market (19th Century)

Siege economies demonstrated how trade could be used under wartime conditions as a form of military power, both as a coercive element that strained the economic conditions of opposing states and as an instrument of war. By the nineteenth century, however, the use of trade as a coercive tool, unlike during the era of siege economies, was directed not toward protectionism but toward integrating economies into the global system through pressure and promoting liberalization.

The forced establishment of the market can be characterized as the use of military power to compel the opening of domestic markets to external trade. In this framework, the Opium Wars constitute one of the most illustrative examples of global powers forcing third countries into foreign trade through military pressure. The blockade policies applied within Europe during the Napoleonic Wars subsequently extended beyond Europe, evolving into an intercontinental geopolitical and military struggle through the war between England and China, and paving the way for a period in which trade was reshaped on a global scale as a form of economic warfare.

In the nineteenth century, in response to China's restrictions on opium imports, England waged war by demonstrating its military power over the Chinese economy and, contrary to earlier practices, forced China into global trade through coercion and pressure. Following the war, the Treaty of Nanking was signed in 1842, along with subsequent forceful interventions that would demonstrate Britain's status as a global power, curtailed China's commercial sovereignty in line with British interests. Together with the additional treaties that followed the Treaty of Nanking, China's customs tariffs came under British control, its ports were forcibly opened to trade, and its national sovereignty was effectively placed under British control through the privileges granted to foreign merchants (Pomeranz, 2000). In this war

initiated by Britain as an imperial authority, the sanctions imposed on China through coercion reshaped commercial relations within a framework of military, political, and legal conflict (Hevia, 2003).

The new trade order established through coercion and pressure following the Opium Wars represents a decisive stage in the evolution of the instruments used in modern trade wars. The war initiated by Britain on the basis of trade liberalization demonstrated that such liberalization was achieved not through market conditions but through military coercion (Cain & Hopkins, 2016).

3. The Retreat of Free Trade: Customs Wars in Europe (Late 19th Century–Early 20th Century)

By the late nineteenth century, military power in trade wars was increasingly replaced by trade protectionist policies shaped through legal and administrative regulations, particularly within industrialized economies. Industrialization and the accompanying protectionist approaches aimed at expanding national industrial capacity led European states to adopt increasingly protectionist policies during this period. Europe's moves to raise customs tariffs in order to protect domestic industries and producers, along with the retaliatory measures that followed, initiated a series of customs wars.

With the Industrial Revolution, the nature of trade wars also began to change. While England moved toward free trade with the repeal of the Corn Laws in 1846, other major economies such as the United States, Japan, and Germany continued to pursue protectionist policies in reaction to British hegemony. This period, characterized by protectionist measures primarily aimed at safeguarding infant industries within the framework of industrialization policies, is described as a phase of late mercantilist reactions. The customs tariffs implemented during this period can be regarded as strategic policy instruments that directly affected the political and economic sovereignty of national economies.

During this period, limited experiments in liberal trade based on the principle of mutual benefit were also undertaken, but they failed to achieve the desired impact. Although the Cobden–Chevalier Treaty, signed between England and France in 1860, introduced reductions in customs tariffs and adopted the "most-favored-nation" principle, the rapid acceleration of industrialization and demands to protect domestic producers prevented the treaty from leading to a fundamental shift in trade policy. McCusker (1996) further emphasizes that, despite England's inclination toward liberalization

in foreign trade at the time, it did not fully abandon mercantilist thinking.

Germany's Bismarck Tariffs of 1879 rank among the most influential examples of protectionist orientation. Germany's decision to raise customs tariffs to protect its domestic industrial and agricultural sectors compelled other countries to adopt similar measures. During this period, the trade crisis that emerged following Germany and several European countries' decision to ban imports of pork from the United States on health grounds—subsequently referred to as the "Pork War"—also attests to the existence of strict protectionist regimes (Baikushikova et al., 2021). From this point onward, foreign trade increasingly took on a more destructive character under a beggar-thy-neighbor approach, in which states pursued their own interests without regard for those of other countries (O'Brien, 1997).

Although increases in protectionist tendencies yielded positive outcomes in the short term by safeguarding national economies, over time, they evolved into a factor that narrowed trade volumes, undermined international trade integration, and generated instability in global trade.

Customs wars shaped by reciprocal tariffs and national interest objectives served as a fundamental indicator of economic nationalism and foreshadowed the intensification of tariff policies in the period preceding the First World War.

4. Wars, Crises, and Institutionalized Protectionism (Early 20th Century)

In the late nineteenth century, as the world moved toward the First World War, the rising protectionist mindset and the structure of trade increasingly shaped by national objectives heightened the fragility of the global trading system. The wars and crises that occurred during this period led trade restrictions to become not merely responses confined to times of war, crisis, or depression, but a standardized state reflex employed even under ordinary conditions.

The impact of protectionist policies manifested itself in the most destructive outcomes during the crisis of the 1930s. Immediately following the Great Depression of 1929, the Smoot–Hawley Tariff Act was adopted in the United States in 1930, imposing customs duties on more than twenty thousand imported products. This period, in which protectionist measures escalated in global trade, narrowed trade volumes through reciprocal retaliations and contributed to the further deepening of the Great Depression (Sheng & Nascimento, 2021; Yan, 2024). While countries retaliating against the United States experienced welfare losses ranging

between 8 and 17 percent, U.S. exports to the targeted countries declined by between 15 and 33 percent (Yan, 2024). Similarly, the foreign exchange controls implemented by European countries in the post-crisis period through import licensing systems and central banks demonstrate that trade protectionism was reinforced by administrative regulations.

The most important feature distinguishing this period from others is that, as evidenced by the regulations discussed above, protectionism became institutionalized as a legally supported policy instrument—implemented through administrative legislation and parliamentary processes—due to the absence of organizations such as the GATT and the World Trade Organization at the time (Ruggie, 1982).

With the emergence of trade blocs between 1920 and 1939 and the widespread adoption of tariffs in the aftermath of the Great Depression, international trade began to be reshaped (Gill, 1990). During this period, protectionist measures based on tariff increases clearly revealed that trade had become a negative-sum form of competition (Irwin, 1998).

5. Disciplined Trade: Postwar Compromise (1940s–1950s)

As a consequence of the instabilities created by the protectionist policies of the 1930s in international trade, the period of global change and transformation aimed at preventing the recurrence of similar episodes coincided with the post–Second World War era. The new order to be established after the war was designed to replace the unilateral and protectionist arrangements of the 1930s world trading system—which had produced adverse outcomes—with a structure based on multilateral agreements and rules that prioritized trade liberalization. In this context, the General Agreement on Tariffs and Trade (GATT), established in 1947, aimed to make international trade more transparent and stable through the gradual reduction of customs tariffs.

Although significant steps toward trade liberalization and economic integration were taken with the establishment of the GATT in the post–Second World War period, protectionist approaches did not entirely lose their relevance. Particularly in countries that adopted an export-led industrial growth strategy, measures aimed at protecting domestic industry and production continued to be implemented through state intervention. The most typical examples of this approach can be observed in East Asian countries. These countries' developmental policies envisaged the adoption of state support and protectionist measures in strategic sectors. In the literature, this period is also referred to as the implicit neo-mercantilist era.

According to the dependency approach, all forms of economic integration between peripheral countries and core countries constituted a fundamental cause of underdevelopment. For this reason, within the import-substitution development perspective, policies promoting domestic industrial production and investment were adopted (Frank, 1967; Adam, 2024).

6. Export-Led Growth and the Strong State Paradigm: The East Asian Experience (1960s–1970s)

From the 1960s onward, the understanding began to gain strength that trade—and particularly foreign direct investment—could provide technological inputs capable of delivering advanced technology, provided the presence of a strong state that channels international relations and technology transfer in line with national objectives (Evans, 1979; Woo-Cumings, 1990). Within this framework, newly industrializing countries (NICs), following the product cycle approach, took over the production of goods whose innovation and technological standardization phases had been completed in advanced countries and began exporting them to global markets at lower costs (Vernon, 1970). In many countries outside developing East Asia, however, the transition of industrialization toward durable consumer goods and capital goods was gradually abandoned, as such a shift entailed significant economic and political costs (O'Donnell, 1988).

Japan emerged as one of the most successful economies in implementing an export-led growth strategy. However, alongside Japan's export- and competition-driven growth, debates over deindustrialization and unfair competition arose in the United States, leading to intense competition between the two countries, particularly in the steel, automotive, and electronics sectors.

During the 1960s and 1970s, Japan adopted protectionism through high tariff barriers in certain sectors, while in others it accepted gradual liberalization in line with U.S. demands. Trade tensions between the United States and Japan began in particular with the entry of the Japanese textile industry into the U.S. market.

7. Voluntary Export Restraints, Neo-Mercantilist Reflexes, and the Return to Neoliberal Policies (1980s–1990s)

In the 1980s, neoliberal policies began to be adopted based on the assumption that state-led development models had lost their effectiveness. This transformation, reflecting the global embrace of liberal ideology following the Cold War, also extended to international trade and laid the

groundwork for the emergence of interstate relations based on mutual economic interdependence (Fukuyama, 1992). By the 1990s, this process paved the way for a highly binding framework of international trade with the establishment of the World Trade Organization (WTO).

However, the sustainability of this rules-based system was disrupted by periods in which major powers deviated from market-economy principles in strategic areas. The practices between the United States and Japan in the 1980s demonstrated that, despite liberalization rhetoric, protectionist measures were not abandoned, particularly in strategic sectors. In this context, the voluntary export restraints imposed by Japan in 1981 under U.S. pressure in the automotive sector limited Japan's exports to the United States. While this policy aimed to protect domestic U.S. producers, it led to higher automobile prices in the United States. From Japan's perspective, although export volumes declined, rising prices created advantages for exporting firms (Ries, 1993, p. 253). By shifting the production of Japanese automobiles to the American market, Japan was able to preserve its market share in the sector (Chung et al., 2003). A similar pattern also applied to the textile industry as a result of relocating production to the United States. The voluntary export restraints implemented during this period in the textile sector between the United States and Japan demonstrated that even the strongest representatives of the capitalist system may act with mercantilist protectionist reflexes when they deviate from the principles of the free market.

At the same time, it is evident that the relevant decisions were shaped not only by economic considerations but also by national security concerns in the context of the reversion of Okinawa. As emphasized by Strange (1994, p. 22), analyses of international political economy should also take into account fundamental societal values such as security, power, freedom, and justice.

7.1. Neo-Mercantilism and Strategic Trade Theory

Within the context of competition between the capitalist and communist blocs during the Cold War, Fleming (1976) characterizes these practices—which began in the 1930s and were revitalized with the crises of the 1970s—under the concept of neo-mercantilism. Coleman (1969) argues that even those who claim that mercantilism has lost its validity implicitly acknowledge its continued existence by employing concepts such as neo-mercantilism and related terms in their counterarguments.

During this period, the classical mercantilist tradition of state intervention

was reconstructed in a modern sense and at the micro level through the Strategic Trade Theory of the 1980s. Building on this theoretical framework, Brander and Spencer (1985) demonstrated in their studies that state-provided subsidies to national firms in specific sectors could generate profit transfers in international markets. Krugman (1986, 1987) likewise drew attention to state support in industries characterized by economies of scale, reaching conclusions that supported this approach (Hamilton & Clare, 2013).

8. Developmental Adaptation Strategies from Japan to China (1990s)

The voluntary export restraints and strategic trade initiatives of the 1980s demonstrated that even within a liberalization process, major economies did not abandon mercantilist motivations. In this context, protectionism is regarded not as a departure from the existing system but rather as a strategic maneuver operating within the system itself and serving as a driving force of development. The most strategic examples of this approach can be illustrated through the export-led industrialization models of Japan and China.

By the 1990s, in the context of trade wars, the United States found itself facing Europe. The European Community, as it was then known, was particularly criticized by the United States for its regulations on agricultural products, which were characterized as discriminatory measures. The trade wars of this period differed from earlier episodes in that they were based not primarily on customs tariffs but on subsidies and regulatory measures.

During the same period, Japan adopted a relatively low-profile compliance strategy in the trade negotiation process by accepting all U.S. demands until the mid-1990s (Yan, 2024, p. 282). In the 1980s, Japan increased its purchases of semiconductor products from the United States in order to integrate into the international system through negotiation with the U.S., and supported this process by granting various concessions in the automotive industry. Japan's response to the liberalization demands of the United States—demands to which it was, in a sense, compelled to acquiesce—took the form of the developmental state model (Evans, 1995). Within the framework of long-term planning, this model involved intensified state intervention and close cooperation between the state and the private sector to support growth, enabling Japan to enter a rapid process of development and industrialization. With this model—combining both protectionist and liberal characteristics—Japan enhanced its global competitiveness by providing state support to export-oriented sectors while

adopting protectionist measures for non-competitive ones. Japan's strategic state interventions were shaped by the Ministry of International Trade and Industry (MITI), which constitutes one of the typical examples of Strategic Trade Theory and is also regarded in the literature as a representative institution of the developmental state model.

Japan's gradual opening of its strategic sectors—initially supported by protectionist policies—to exports ensured that liberalization was implemented directly under state control. During this period, the need for access to U.S. resources, technology, and markets compelled Japan to accept U.S. demands for liberalization. The implementation of liberalization in compliance with U.S. demands thus became an integral component of Japan's development model, serving as a driving force that enhanced competitiveness in the relevant sectors.

China, by contrast, accepted U.S. liberalization policies in the 1990s despite its resistance to Section 301. After joining the World Trade Organization in 2001, China opened its domestic market to international trade in goods and capital through substantial tariff reductions. Following the collapse of the socialist system, China—similar to Japan—pursued industrialization through state-led policies. Drawing on the Japanese model, China continued a similar practice to Japan's investments in the United States during the 1980s aimed at avoiding U.S. tariffs. By establishing production facilities in the United States and Southeast Asia, the Chinese state both circumvented U.S. tariffs and increased its flexibility within global supply chains (Yan, 2024, p. 285). The principle that compliance with U.S. sanctions constituted an element of growth and development in the case of Japan likewise remained valid for China. Between 2000 and 2013, the number of state-owned industrial enterprises declined by 84 percent, while private sector initiatives increased by 8.7 times (Chen, 2016, cited in Yan, 2024).

National policies prioritizing industrial development in both China and Japan strengthened state–capital relations, enhancing state capacity through the *keiretsu* system in Japan and through state-owned enterprises in China. In this context, China's "Made in China 2025" program, announced in 2015, represents a technology-oriented and state-supported industrialization policy—focused on areas such as semiconductors and artificial intelligence—aimed at transforming domestic production into a global power within a neo-mercantilist development framework. The technological superiority and security concerns generated in the United States by this initiative, in turn, effectively compelled the U.S. to adopt protectionist industrial policies

in advanced technologies through the CHIPS and Science Act, enacted in 2022. From this perspective, the strategic system pursued by Japan and China in the twenty-first century has not remained confined to emerging economies but has also become a policy approach adopted by advanced economies.

9. Global Value Chains and the Post-Neo-Mercantilist Era (21st Century)

Until the 2000s, peripheral and semi-peripheral countries shared a common trade strategy: exporting in areas of comparative advantage, embracing free trade, and complying with institutional norms and rules designed to attract foreign investors (Büthe & Mülner, 2008). This approach regarded export-led industrialization as the fundamental driver of development. However, the emergence of global value chains (GVCs) rendered integration between developing countries and Western economies inevitable. In the subsequent period, countries' positions within this integration process began to replace export-led industrialization as the core dynamic of development (World Bank, 2020).

The global value chain model represents a structure in which countries' development trajectories within international production networks are hierarchically differentiated along the chain (Arnold & Naseemullah, 2024, p. 669). While countries at the upper tiers of this structure concentrate on high-value-added production, those positioned lower in the hierarchy are characterized by low-value-added and labor-intensive production. Within this framework, the GVC model reveals that relationships of interdependence are asymmetric and that gains and losses are not distributed equally across countries. Angwaomaodoko (2024) argues that bilateral trade tensions arising within interdependent relationships increase global costs and disrupt global value chains. From this perspective, it can be argued that integration has addressed the development problem by building upon inequality, dependency, and vulnerability.

The perception of inequality generated by the fact that some countries have advanced more rapidly than others within global value chains was reinforced by China's accession to the WTO in 2001. Through this process, China consolidated its position in global trade and entered a phase of full integration into the system; by pursuing export-led industrialization, it gained direct access to U.S. and European markets and expanded its sphere of influence. Although China's accession to the WTO represented an attempt to enter a rules-based system, its state-led development strategy

and technology transfers placed China in an advantageous position relative to other countries. When China's success was framed as other countries' failure, free trade came to be perceived as an activity that emphasized losses rather than gains and reduced overall welfare (Rodrik, 2018).

This shift in perceptions of free trade has transformed the global political economy of the twenty-first century into a period in which mercantilism has re-emerged at the global level, as states have adopted new mercantilist policy instruments aimed at protecting national interests. Characterized as a reinterpretation of state intervention through modern methods and techniques, this period has represented the concrete steps of interstate struggles to establish global supremacy.

These measures—ranging from R&D support to export incentives and exchange rate management—have produced efficiency- and profit-oriented outcomes, particularly in non-competitive sectors, thereby adding a new dimension to trade wars. In this period, marked by the prominence of the discourse on economic warfare, economic instruments have become at least as important as military and political tools (Farrell & Newman, 2019).

9.1. New-Generation Trade Wars: The Post-Neo-Mercantilist Era

Neoliberalism and neo-mercantilism are generally regarded as two opposing approaches. Nevertheless, in semi-peripheral countries such as Türkiye, the combined use of these two contrasting strategies has been turned into an advantage. Under the neoliberal system, firms seeking access to affluent markets are required to comply with rules established within the framework of international norms; by contrast, the export structures of semi-peripheral economies—being shaped largely by relationships and informal institutions and carried out by small-scale firms oriented toward developing countries—demonstrate that dual policy practices in semi-peripheral countries perform a complementary function. Under such conditions, the role of the state transforms from a merely supportive element into a strategic instrument that directly facilitates access to markets. These developments represent institutional strategic maneuvers aimed at reducing dependence on the West (Arnold & Naseemullah, 2024, p. 666).

The simultaneous use of neoliberal and neo-mercantilist policies has not remained confined to semi-peripheral countries; rather, it has also been increasingly adopted by advanced economies in response to rising tensions in global trade stemming from asymmetric dependencies within global value chains, relative losses, and intensifying competition. Through this process, a new system—one in which free trade principles are combined

with interventionist measures aimed at protecting national interests—has begun to gain acceptance within the international system.

Trade relations of the twentieth century, in which liberal ideology also liberalized global trade, had, by the twenty-first century, become instruments of political pressure and strategic advantage as a result of the strengthening of economic nationalism, the escalation of geopolitical tensions, and the impact of technological transformation (Rodrik, 2011). This period is characterized by mercantilist, state-centered interventions in which economic instruments are employed in foreign policy to protect national interests, ensure security, and establish political superiority. Referred to as the post-neo-liberal or post-neo-mercantilist era, this period has witnessed the transformation of mercantilist protectionist policies in line with contemporary conditions, being reshaped through the use of geoeconomic instruments. In addition to classical tariffs, restrictions, and sanctions, the competition in foreign trade has assumed its current form through the incorporation of geoeconomic tools targeting technology (e.g., semiconductors, software), energy, financial instruments, and supply chains. According to Blackwill and Harris (2016), safeguarding technological capacity, ensuring data security, maintaining the continuity of energy supply, and securing access to rare earth elements are far more important than the traditional objective of achieving a trade surplus.

With the concept of weaponization of trade, new-generation trade wars have also undergone a conceptual transformation. Building on Baldwin's (1985) *economic statecraft* approach, the contemporary literature defines the weaponization of trade as the use of interdependent relationships in international trade by states as political instruments -much like weapons- for purposes of coercion and deterrence. This perspective argues that foreign trade, which mercantilism characterizes as a zero-sum game, is reverting to a struggle of winners and losers. The example of the 1973 Oil Embargo demonstrated that trade is not merely a process of economic exchange but also a tool of pressure in foreign policy, used strategically by states to reshape security relations (Feldhaus et al., 2020, p. 4).

Since around 2010, it has become evident that the growing protectionist tendencies in the global trade environment have not remained confined to purely economic relations but have been shaped by taking into account countries' domestic and societal dynamics as well as political factors. International foreign policy relations have increasingly been defined within the framework of trade-related sanctions, ranging from customs tariffs and export bans to technology transfer processes and the protection of strategic sectors (Hopewell, 2021). This period, often described under the label of

"new protectionism," also reflects a process in which efforts to secure social and political legitimacy have become more visible (Bremmer, 2014).

This period has turned into a geopolitical issue resembling a "battlefield" in which states can expand their national interests by employing foreign trade instruments (Blackwill & Harris, 2016, p. 219–220). As foreign trade has become a matter of national security through reciprocal sanctions, liberalism's conciliatory mechanisms have given way to conflict and multidimensional competition.

The post-new protectionist policies, whose foundations were laid with the 2008 Global Crisis, deepened as a result of the damage the crisis inflicted, particularly on Western macroeconomic indicators and persistently low welfare levels, creating the perception that global trade primarily benefits multinational corporations (Stiglitz, 2017). Consequently, the adoption of protectionist tendencies in foreign trade has increasingly been shaped not only by economic considerations but also by the influence of populist politics. In this context, the subjects of global trade—and of trade protectionism in particular—have shifted toward new-generation strategic sectors such as green technologies, artificial intelligence, and clean energy.

The most typical contemporary example of Strategic Trade Theory and neo-mercantilist strategies is the global power struggle between the United States and China, which has had worldwide repercussions. In 2018, the tariff sanctions initiated against China by U.S. President Trump evolved into a trade war through reciprocal retaliation. The high tariffs imposed under Trump's "America First" motto pushed global trade away from its classical liberal trajectory and forced it into a new phase of transformation characterized by greater unpredictability and insecurity, in which political and strategic decisions increasingly took precedence over purely economic considerations. This process, initiated under U.S. leadership, is symbolized by three key reference points that reflect the trajectory of the period: the transformation of the North American Free Trade Agreement (NAFTA) into the United States–Mexico–Canada Agreement (USMCA), the imposition of high tariff barriers on China, and the introduction of technology restrictions targeting China (Saliya, 2025, p. 1). One of the principal reasons behind the sanctions imposed by the United States on China is the fact that its largest trade deficit originates from trade with China (Koçakoğlu & Özaydın, 2020, p. 639).

The strongest example of a protectionist orientation in Europe is the United Kingdom, which decided to leave the European Union through the Brexit process. Encompassing economic integration alongside its political

and ideological dimensions, and representing the institutionalized form of resistance to neoliberal policies, Brexit (Rodrik, 2018) occupies a distinct position from traditional trade wars; nevertheless, in terms of its underlying motivations, it rests on similar principles. Whereas trade wars in the twentieth century were conducted through tariffs, quotas, and exchange controls, the twenty-first century has made visible—through Brexit—tools that directly target integration mechanisms at the institutional and legal levels.

9.2. Trade Wars in the Post-Neo Mercantilist Era

In 2018, citing China's alleged violations of U.S. intellectual property rights, forced technology transfer practices, and state intervention in the industrial sector, the United States initiated a policy of high tariffs on steel and aluminum, which was met with retaliatory measures by China. The competition between the United States and China has evolved within a broad framework that extends beyond conventional tariff increases to encompass high-value-added production and data security concerns.

In the subsequent phase, trade wars between the United States and China have been reshaped through new geo-economic policy instruments, including the restructuring of supply chains, friend-shoring, and technology embargoes.

Post-neo-mercantilist trends, which began to emerge through US-China rivalry, have deepened trade wars by diversifying the tools used in global trade during the Covid-19 pandemic. Disruptions in global supply chains after the pandemic, and problems in strategic areas such as digital infrastructure and security, have been decisive factors in strengthening the interventionist state mentality and in the diversification and systematization of geo-economic tools in international competition.

The Covid-19 pandemic, through disruptions experienced in global supply chain networks—perhaps the most severe adverse consequences of globalization—opened up a new domain of protectionism of strategic importance in countries' foreign trade policies. In the face of vulnerabilities created by global integration, states have begun to prioritize the notion of "supply security," shifting their focus in production, distribution, and marketing processes away from efficiency alone toward risk management (UNCTAD, 2021).

Global supply chains refer to the allocation and coordinated management of each stage of the process—from the production of goods and services to their delivery to the final consumer—across different countries (Gereffi et al., 2005). Feenstra (1998) conceptualized this process as the "integration of

trade" alongside the "disintegration of production." The steadily increasing volume of global trade has been accompanied by the fragmentation of production processes within multinational corporations. The outsourcing of all activities outside firms' core operations—both domestically and internationally—has generated cost advantages. In this context, international trade has increasingly transformed into trade in production inputs (Yeats, 2001).

The trade wars that began between the United States and China have, in the post-pandemic period, evolved into an intensified form of competition characterized by greater strategic depth, with technology control and national security coming to the forefront, and have expanded across a broad area involving the European Union and Asian countries. Through friend-shoring, measures have been adopted to secure risky inputs, embracing the principle that input sourcing and production stages should be carried out in cooperation with politically aligned and reliable countries. Similarly, near-shoring has aimed to relocate strategic production stages to geographically proximate countries. Such practices have shifted the nature of trade away from a market-oriented logic toward one centered on national security and risk management (Tooze, 2022). In this period, semiconductors and artificial intelligence technologies have turned into a struggle for technological supremacy in international trade. Technological restrictions, by creating bottlenecks within global value chains, have elevated competition in foreign trade to a level of critical importance for countries worldwide.

Conclusion and Evaluation

Trade wars, by their very nature, represent long-term and persistent forms of conflict. This study has approached trade wars as a complementary component of international political economy and has examined these conflicts—shaped around struggles for political hegemony, areas of strategic intervention, and institutional arrangements—through a historical perspective. The common conclusion that can be drawn for each of the periods examined is as follows: at no point in history has international trade been shaped solely by economic considerations; rather, it has consistently functioned as a domain oriented toward the pursuit of strategic power and addressed within the framework of state sovereignty and security.

Mercantilism has made significant contributions to the development of international trade and its contemporary manifestations; from colonialism—generated by the primitive forms of today's trade wars—to the market economy paradigm and globalization, it has constituted the intellectual and

practical core of major turning points in both thought and implementation. Following periods such as the Napoleonic Wars and the Opium Wars, in which military power served as the principal determinant of foreign trade, the subsequent phase of imperial integration and measures aimed at protecting national industries led to a contraction of trade volumes and welfare on a global scale. Following the Second World War, efforts were made to eliminate the adverse outcomes of earlier protectionist measures by adopting an economic-integration-based, rules-based multilateral trade regime. Nevertheless, the Cold War period revealed the continued presence of a protectionist logic in practice, if not in rhetoric, as sectoral competition came to the forefront. With China's integration into global trade, the role and power of the state disrupted the balance of an order that sought to operate according to rules. The new phase that began with tariff restrictions between the United States and China has transformed the substance of trade wars into a technology-based arena—centered on chips, semiconductors, artificial intelligence, and clean energy—shifting competition toward a trade war environment dominated by geoeconomic strategies.

Ultimately, viewed from a historical perspective, trade wars emerge as critical turning points in both economic and political history. The cyclical nature of trade wars—recurring across different periods and under varying sectoral conditions—and their capacity to influence one another constitute one of the most significant challenges of an increasingly globalized world.

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Chapter 3

Digital Transformation and Global Trade ⚸

Şahin Çetinkaya[1]

Abstract

This study comprehensively examines the impact of digital transformation-and the blockchain, artificial intelligence, and big data analytics that drive it—on international trade. Global trade has developed and evolved in tandem with emerging technologies. Today, the trade model based on traditional physical borders has been replaced by the dematerialization of trade, the rise of trade in services, and the digital integration of Global Value Chains (GVCs). This study investigates the democratization opportunities created by e-commerce for SMEs, the phenomenon of micro-multinationalization, and the effects of technologies such as Artificial Intelligence, the Internet of Things (IoT), and blockchain on logistics efficiency and supply chains. Global digital transformation has created governance gaps within international regulatory frameworks. In particular, issues such as data localization policies, cybersecurity risks, and the taxation of digital services (OECD Pillar One/Two) have emerged as new areas of contention in global trade. By taking into account the global e-commerce volume reaching approximately \$6.8 trillion as of 2024 and the 6.5% share of e-commerce in Türkiye's GDP, this study analyzes the macroeconomic dimensions reached by digital transformation. In this context, the implementation of international standardization and inclusive development policies is imperative to minimize the risk of the digital divide and to establish a sustainable global trade structure.

1. Introduction

Global trade, shaped within the triangle of blockchain, artificial intelligence, and big data, is undergoing its most radical structural transformation since 17th-century mercantilism by surpassing traditional rules and physical limitations. Technological advancements, which have progressed rapidly since the late 20th century, are subjecting the global

1   Assoc. Prof. Dr., Aksaray University, Faculty of Health Sciences, Department of Health Management, sahincetinkaya@aksaray.edu.tr, ORCID iD: https://orcid.org/0000-0002-2937-4247

economy and the nature of international trade to a fundamental change. Particularly in the last decade, the integration of breakthrough technologies such as artificial intelligence, the Internet of Things, big data analytics, cloud computing, and blockchain into commercial processes has heralded a new era termed "Digital Transformation" (WEF, 2023). Digital transformation is creating a new global trade ecosystem that not only optimizes the way companies do business but also blurs geographical borders.

Traditionally, international trade was structured around customs processes for physical goods, logistics costs, and long supply chains. However, today, even small and medium-sized enterprises (SMEs) can easily access global markets through digital platforms; many services ranging from financial services to software, and from education to healthcare, can be offered across borders instantly via digital channels (UNCTAD, 2022). This situation strengthens the trend of "dematerialization" of trade, rapidly changing both the volume and composition of trade.

1.2. Digital Transformation Outlook

While digital transformation creates opportunities in global trade (such as cost reduction, increased market access, and efficiency), it also gives rise to a series of new and complex challenges. Foremost among these issues is the inability of international regulatory frameworks to keep pace with the digital age. While customs tariffs and quota applications focus predominantly on physical goods, issues such as the taxation, privacy, and security of cross-border data flows have yet to be standardized at the international level (Ertürk, 2024).

Another significant problem is the digital divide. While countries possessing digital infrastructure, technological competence, and human capital (generally developed economies) derive great benefits from digital trade; developing countries and Least Developed Countries (LDCs) lacking these capabilities face the risk of being excluded from global trade flows. This situation carries the potential to deepen inequalities in global trade. Furthermore, issues such as cybersecurity threats, the monopolistic tendencies of platform economies, and consumer protection are challenges awaiting urgent solutions for trade governance in the digital age (Manyika et al., 2016).

1.3. Purpose and Scope of the Chapter

The main purpose of this book chapter is to examine the comprehensive effects of digital transformation on global trade within a theoretical and

applied framework. In this direction, the chapter will focus on three main areas:

1. The Impact of Digitalization on Trade Flows: Micro and macroeconomic effects, such as the rise of e-commerce, the shift in trade in services, and the transformation of global supply chains, will be analyzed.

2. Governance and Policy Issues: Cross-border data flows, digital taxation, new provisions in trade agreements, and regulatory compliance challenges will be evaluated.

3. Inclusiveness and Equity: The inequalities created by the digital divide in global trade will be examined, and proposals for inclusive digital trade policies will be presented.

Through this comprehensive analysis, the aim is to create a guiding resource for decision-makers determining trade policies at both national and international levels, as well as for academics and the business world.

2. Conceptual Definitions

2.1. Digital Trade

While digital trade is generally used synonymously with the concept of electronic commerce (e-commerce), it denotes a broader scope. The most common and accepted definition focuses on the execution of commercial transactions in electronic and digital environments. In other words, it encompasses all processes, technologies, and data that digitally enable trade activities. It includes elements such as digital marketing, cloud computing, supply chain integration, data analysis, and digital payment systems.

2.1.1. Digital Trade Models

Digital trade is divided into various models based on the actors involved in the trade:

- B2C (Business to Consumer): The model where businesses sell their products directly to individual consumers.

- B2B (Business to Business): The model where businesses sell raw materials, equipment, or services to other businesses (It is the largest e-commerce segment in terms of volume).

- C2C (Consumer to Consumer): The situation where individuals sell

to other individuals through online platforms (marketplaces).

- C2B (Consumer to Business): The model where consumers offer services or value-creating content to businesses (e.g., Freelancers providing services to companies via platforms).

2.2. Global Trade

It is the fundamental mechanism connecting the world economy, denoting the exchange of goods, services, and capital across national borders. Traditionally, it is explained through the concepts of *export* (what a country sells abroad) and *import* (what a country buys from abroad).

2.2.1. Theoretical Foundations of Global Trade

The reasons why global trade occurs are explained by fundamental economic theories:

Absolute Advantage Theory: This theory belongs to the Scottish economist Adam Smith. It appears in Smith's classic work, "The Wealth of Nations," published in 1776. It proposes that a country should focus on the product it can produce in greater quantity using fewer resources compared to other countries.

Comparative Advantage Theory: According to this theory put forward by David Ricardo in the 19th century, countries should focus on producing the products they are best at by trading with each other. David Ricardo argues that even if a country can produce everything cheaper than another, it should focus on the product with the lowest opportunity cost. This specialization ensures an increase in world production and general welfare.

2.2.2. Historical Development and Governance

International trade dates back to ancient trade networks such as the Silk Road, but modern global trade gained momentum particularly after the Industrial Revolution.

- Mercantilism: This doctrine, which was dominant in the 17th and 18th centuries, argued that a country should acquire its wealth by increasing exports and decreasing imports (Savaş, 1997).

- GATT and WTO: After the Second World War, the General Agreement on Tariffs and Trade (GATT) (1947) was established with the aim of reducing customs tariffs and other trade barriers. In 1995, GATT transformed into the World Trade Organization (WTO), which sets global trade rules and resolves disputes. The establishment

of the WTO (as a result of the Uruguay Round) is considered one of the most significant steps in economic globalization (Saruhan, 2010).

2.2.3. Current Trends and Challenges

In recent years, international trade has entered a process of structural and dynamic change, driven by geopolitical tensions, the effects of global pandemics, and especially the momentum of digital transformation. Traditional trade patterns and business practices are being reshaped under the pressures of the new global economic order.

Table 1: Evolution of Global Trade and Current Dynamics		
Area	**Traditional Structure**	**Current Trends and Challenges**
Trade Structure	Inter-industry Trade (e.g., Agricultural products from country A, industrial products from country B)	Global Value Chains (GVCs) and Intra-industry Trade. Production is geographically distributed by being divided into sub-processes with different factor intensities (TCMB, 2010).
Trade in Services	Requiring physical travel or communication.	The Rise of Digital Trade: The volume of digitally deliverable services such as telecommunications, financial services, and e-commerce (including B2C sales) has increased rapidly (Burgan Foreign Trade, 2024; ISO, 2021).
Geopolitics	Trade is focused on economic benefit.	New Protectionism and Geopolitical Tensions: Protectionism (via non-tariff barriers) and trade wars (especially US-China tension) have increased. New concepts: *Nearshoring* (shifting supply chains to nearby geographies) and *Friendshoring* (focusing on friendly countries)

Source: İMMİB (2025).

This table summarizes the structural transformation that global trade has undergone from its traditional structure towards the new trends and challenges encountered today. When the structure of trade is examined, while Inter-industry Trade (e.g., one country exporting agricultural products and the other industrial products), where countries specialized in different industries, was dominant in the past; today, the Global Value Chains (GVCs) and Intra-industry Trade model, in which multinational corporations distribute

geographically by fragmenting their production processes according to different factor intensities, has become dominant (TCMB, 2010). While this model implies that different stages of a final product are produced in more than one country, it has ensured the deepening of global trade. At the same time, the field of Trade in Services, which formerly required physical travel or communication, has entered a period of The Rise of Digital Trade, where the volume of services that can be offered through digital platforms such as telecommunications, financial services, and B2C e-commerce has rapidly increased (Burgan Foreign Trade, 2024; ISO, 2021).

In addition to these structural changes, the fundamental motivation of trade has also shifted away from being focused on economic benefit to an area where geopolitical factors are strongly felt. Current trends point to the proliferation of New Protectionism policies, manifesting themselves through the increase of non-tariff barriers and trade wars (especially US-China tension). This situation has triggered the search to increase the reliability and resilience of global supply chains; in this context, new concepts have emerged such as Nearshoring (the strategy of shifting production and supply sources to geographies close to consumption markets) and efforts to focus supply chains on politically allied or friendly countries (Friendshoring) (İMMİB, 2025). These developments show that global trade is managed by a more complex dynamic that focuses not only on market efficiency but also on national security and political alignment.

3. Fundamentals and Components of Digital Transformation

3.1. Definition and Scope of Digital Transformation

Digital transformation (DX) is the process of making fundamental changes in business models, organizational culture, and operational processes by using technology as a tool. In the context of global trade, this transformation implies the shift of international transactions from physical to digital, and from linear processes to network-based ecosystems. There are a number of key technologies, often referred to as Industry 4.0 or the 4th Industrial Revolution, that form the basis of this transformation:

- Artificial Intelligence (AI) and Machine Learning: They play a critical role in demand forecasting, risk management, and the optimization of autonomous logistics systems in global supply chains. They automate and accelerate decision-making processes at every stage of trade.

- Big Data Analytics: It provides firms with a competitive advantage in global markets by analyzing cross-border consumer behaviors, market trends, and logistics data.

- Internet of Things (IoT): It increases transparency and security by enabling the real-time tracking of containers, warehouses, and products in international transport.

- Cloud Computing: It allows businesses to increase their operational capacities in the global market with low capital costs and facilitates cross-border collaboration.

- Blockchain Technology: It reduces the risk of fraud by increasing the security, transparency, and traceability of transactions, especially in supply chain finance and customs processes.

The integrated use of these technologies takes the level of speed, precision, and personalization in global trade to unprecedented levels.

3.2. Current Structure of Global Trade and Digitalization Trends

While traditional global trade relied primarily on the import and export of physical goods, trade in services and intellectual property flows have rapidly gained importance in recent years. Digital transformation is altering this structure in three main areas:

1. Dematerialization of Trade: Information and services become the subject of trade directly via digital channels (e-books, software, consultancy, digital media) without the need for a physical product. This increases the share of trade in services within global trade.

2. Evolution of Global Value Chains (GVCs): Digital platforms enable firms to manage suppliers and manufacturers in different countries more efficiently. Smart contracts and real-time tracking systems render GVCs more flexible and resilient.

3. Micro-Multinationalization (Micro-multinationals): E-commerce platforms (Amazon, Alibaba, Etsy, etc.) enable small businesses to reach international customers without bearing high marketing and distribution costs. This situation helps global trade evolve into a more democratic structure by moving away from the monopoly of large multinational corporations (OECD, 2021).

3.3. Economic Impacts of Digitalization

The contributions of digitalization to the global economy and trade can be measured at both macro and micro levels:

- Productivity Gains and Cost Reductions: Automation and artificial intelligence significantly reduce customs, paperwork, and logistics costs in cross-border transactions, thereby shortening transaction

times. This provides great efficiency, particularly in bureaucratic processes such as customs clearance.

- New Business Models and Market Creation: The "Platform Economy" has created new marketplaces and business models on a global scale. These platforms have opened new trade channels by bringing supply and demand together independently of geographical borders.

- Better Resource Allocation: Big Data analytics allows companies to improve their demand forecasts, thereby reducing inventory holding costs and ensuring more effective use of resources.

In summary, the fundamental components of digital transformation are reshaping global trade both structurally and functionally, which lays the groundwork for the effects on concrete trade flows to be discussed in the next section.

4. The Impact of Digitalization on Global Trade Flows

Digital transformation transforms the traditional channels and methods of global trade, leading to significant changes in the geographical and sectoral distribution of trade. These effects become evident particularly in the rise of e-commerce, the increase in trade in services, and the restructuring of supply chains.

4.1. The Rise of E-Commerce and Cross-Border Trade

The proliferation of digital platforms has exponentially increased the volume of cross-border retail e-commerce. Market entry costs, which are high in traditional trade (physical stores, distributor networks, international marketing), have been significantly reduced thanks to digital platforms.

- Access of Micro and Small Enterprises to Global Markets: E-commerce giants (e.g., Amazon, Alibaba, eBay) and other marketplaces allow SMEs and individual entrepreneurs (in C2C and B2C models) to offer their products directly to foreign consumers (WTO, 2018). This situation is termed the "democratization of trade" and ensures that participation in global supply chains is no longer limited to only large firms.

- Transformation of Consumer Behaviors: Consumers can easily access products anywhere in the world, and this increases the global demand for personalized products and services. Cross-border e-commerce expands the opportunity for consumers to shop without compromising on price, variety, and quality (Bughin et al., 2018).

- Regulatory and Logistical Facilitations: Digitized customs processes (electronic declarations, risk analysis) and logistics integrations (end-to-end tracking systems) both accelerate and reduce the cost of cross-border shipments made in small parcels.

4.2. Digitalization in Trade in Services

Digital technologies have become the driving force of trade in services, which grows faster than trade in physical goods. Many services that formerly required physical presence can now be delivered entirely digitally.

- Digitally Delivered Services:

  - Cross-Border Delivery: Services such as cloud computing services, software downloads, remote education, tele-health, and financial technologies (FinTech) can be offered instantly over the internet. This has created a new and massive market, particularly for professional and technical services.

  - Temporary Physical Presence: Remote collaboration of experts and travel supported by digital tools facilitate trade in services.

  - The Role of Data Flows in Trade: A significant portion of trade in services, especially in the e-commerce, finance, and technology sectors, relies on cross-border data flows. The international circulation of customer information, operational data, and intellectual property (software codes, algorithms) constitutes the foundation of modern trade. This situation has turned data governance and data localization policies into a main agenda item of global trade.

4.3. Transformation in Global Supply Chains

Digital technologies significantly affect the design, management, and resilience of Global Value Chains.

- Blockchain and Transparency: By offering the ability to record every transaction in the supply chain (production, transport, customs clearance) on an immutable ledger, blockchain allows the origin and journey history of the product to be tracked with a high level of transparency. This helps prevent counterfeiting and increases consumer confidence in issues such as food safety.

- Automation and Smart Logistics: Internet of Things (IoT) sensors, robotic systems, and AI-supported analytics reduce logistics costs and error rates by automating warehousing, packaging, and transport

processes (Arslan, 2023). Smart ports and autonomous vehicles increase cross-border logistics efficiency.

- Localization Trends (Re-shoring/Near-shoring): The development of 3D printing (additive manufacturing) technology makes the final assembly or production of certain products economically feasible closer to the consumer. While this may support the trend of shortening supply chains by reducing dependency on long and complex GVCs, it may also alter the structure of trade in physical goods.

These transformations signify fundamental changes not only regarding how large global trade is, but also regarding between whom, at what speed, and with which products it is conducted. These new dynamics create significant pressure on international trade policies and governance mechanisms, which will be discussed in the next section.

4. Digital Trade Policies and Governance Issues

The speed and flexibility created by digitalization in trade flows have revealed significant challenges for existing international trade law and regulatory frameworks. While traditional trade rules are established upon physical goods, the data flows, cybersecurity, and cross-platform competition at the center of digital trade have necessitated a new need for governance.

4.1. International Trade Agreements and Digital Trade Provisions

The World Trade Organization (WTO) and regional free trade agreements (FTAs) are in an effort to evolve to encompass digital trade, but this process is progressing slowly.

- E-Commerce Negotiations at the WTO: Although WTO members are trying to reach a consensus on a permanent Customs Duties Moratorium (non-application of customs duties on electronic transmissions), deep divisions persist on issues such as data localization, protection of intellectual property, and consumer rights (Aydın, 2024). The future of this moratorium remains uncertain due to developing countries' concerns regarding the loss of customs revenue.

- Regional and Bilateral Agreements: New generation FTAs such as the Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) and the United States-Mexico-Canada Agreement (USMCA) contain specific provisions regarding e-commerce and cross-border data flows. These agreements generally

encourage the free flow of data while restricting data localization requirements.

- Digitalization of Customs Processes: International cooperation attempts to remove non-tariff barriers in physical trade through the simplification and digitalization of customs processes (e.g., single window systems, electronic bills of lading).

4.2. Data Localization and Cross-Border Data Flows

Data flows, which are the most critical component of digital trade, constitute the most controversial area due to concerns regarding national security, privacy, and economic sovereignty.

- Data Sovereignty and Localization Policies: Some countries such as China, Russia, and India implement data localization laws mandating that the personal data of their citizens be stored and processed within the country's borders. These policies increase operational costs for international service providers and multinational corporations and hinder global trade by restricting the free flow of data (Karaarslan, 2023).

- Privacy and Data Protection Regulations: The European Union's General Data Protection Regulation (GDPR) has set a global standard. By binding the processing of EU citizens' data to strict rules, the GDPR requires all firms worldwide trading with this data to ensure compliance. This situation can cause data protection standards to constitute a regulatory barrier in global trade.

- **Cybersecurity Standards:** The protection of critical infrastructure and commercial data is a primary source of concern for states. Divergent national cybersecurity standards complicate cross-border digital trade by creating incompatibility and additional costs.

4.3. Taxation and Regulatory Challenges

The structure of the digital economy, which does not rely on traditional physical presence, significantly challenges international tax systems and competition authorities.

- Digital Services Taxes and Global Tax Reform: Traditional tax rules are based on taxing companies where they are physically located. However, digital platforms may not show physical presence in markets where they generate huge revenues. To close this gap, many countries like France and Türkiye have started implementing Digital Services

Taxes (DST) (Güler, 2022). This situation has led to trade tensions at the global level. The effort to introduce a global minimum corporate tax via the "Two-Pillar Solution" (Pillar One and Pillar Two), led by the OECD, aims to reshape the taxation of digital trade.

- Competition and Monopolization in the Platform Economy: The market power and monopolistic tendencies of global digital platforms (e.g., search engines, social media, e-commerce marketplaces) can exclude small competitors and SMEs from the global market. This situation requires international competition law cooperation to protect trade fairness and competition.

- Consumer Protection: In cross-border e-commerce, uncertainty remains regarding which country's laws will protect consumers in issues such as counterfeit products, data breaches, and contractual disputes.

These regulatory and political challenges are the biggest obstacles standing in the way of fully realizing the potential of digital transformation. Solutions require the creation of new global trade governance mechanisms based on principles of international cooperation, transparency, and inclusiveness.

5. Digital Trade Outlook in the World and Türkiye

5.1. Digital Trade in the World

The 2014-2024 period was taken into account when comparing data and the size of the digital structure within the global trade volume. Digital trade, one of the most important dynamics radically changing the structure of global trade, is accepted today as one of the fastest-growing and most critical areas of the world economy. Thanks to the proliferation of the internet, the development of mobile technologies, and the rise of digital platforms, geographical borders have been eliminated, and the access of businesses and consumers to international markets has reached an unprecedented level.

This transformation process encompasses not only the online buying and selling of physical goods (e-commerce) but also the trade in digitally delivered services such as cloud computing, AI-supported services, and international data transfers.

In the era we are in, digital trade has become one of the main driving forces of global economic growth, covering not only online retail but also all transactions enabled by digital technologies, including cross-border data flows and digitally delivered services (OECD, 2019; Ministry of Trade, 2019).

The unique cost reductions and new business ecosystems (digital platforms) brought about by digital technologies have restructured global trade by increasing the scale, scope, and speed of international trade and overcoming geographical distances between economic actors (Abeliansky and Hilbert, 2017; Ferracane et al., 2020). "Digital trade, which surpasses the growth rate of traditional goods and services exports, has reached an estimated volume approaching $5 trillion, representing one-quarter of global trade; this rapid growth creates new and inclusive global opportunities for micro, small, and medium-sized enterprises (MSMEs)" (IKV E-Bülten, 2024).

Graph 1- Development of Digital Trade in the World (2014-2024)

Source: https://www.charle.co.uk/articles/ecommerce-statistics/#globalstats
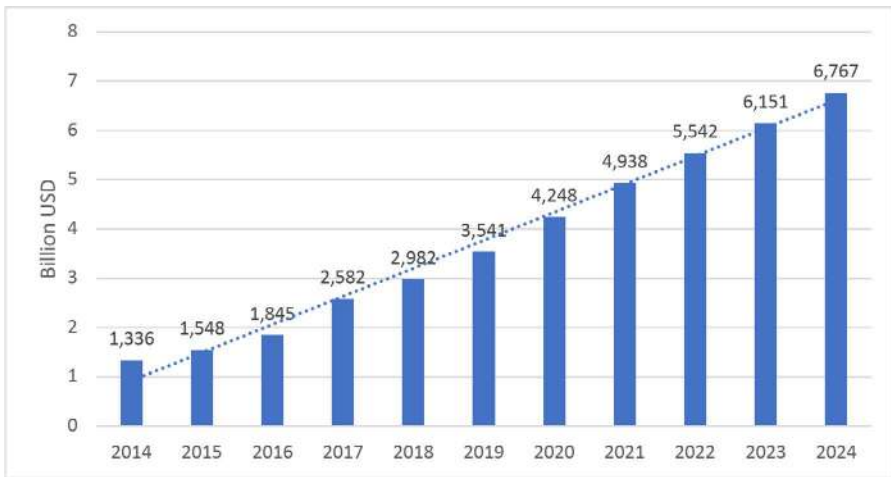
The data in Graph 1 clearly demonstrates the rise of global digital trade (e-commerce) volume with significant momentum during the 2014-2024 period. The volume, which was at the level of 1,336 billion USD in 2014, exhibits an approximately five-fold increase by reaching the level of 6,767 billion USD at the end of the ten-year period (2024 forecast). Particularly between 2020 and 2021, with the effect of the global pandemic and digitalization becoming a mandatory adaptation mechanism, the growth rate even surpassed the linear trend line. This situation indicates that e-commerce is not merely an economic facilitator, but a structural change dynamic that provides resilience against external shocks and permanently transforms consumer behaviors.

While this stable and strong growth of digital trade increases the pressure

on traditional retail sectors, it has brought about serious investment and innovation requirements in complementary fields such as logistics, payment systems, and cybersecurity. The high values reached by the digital trade volume signal that this sector has become one of the fundamental pillars of the global economy and that its share within the worldwide Gross Domestic Product (GDP) is continuously increasing.

Although a certain normalization trend is observed in the growth rate in the 2023 and 2024 forecasts in the graph, it predicts that the volume will maintain its upward trend. The 6,767 billion USD volume projected for 2024 represents a massive market size for the world economy and reinforces the critical importance of digital infrastructure investments in terms of development strategies. In the light of these macroeconomic indicators, in order for national economies to sustain their competitiveness, they need to develop policies that encourage the integration of even micro and small enterprises into digital platforms and ensure that trade is conducted effectively not only locally but also through cross-border digital channels. Thus, digital trade will be positioned as one of the main engines of sustainable economic growth.

Graph 2 - Global E-Commerce Ranking (2023)

Source: https://www.charle.co.uk/articles/ecommerce-statistics/#globalstats
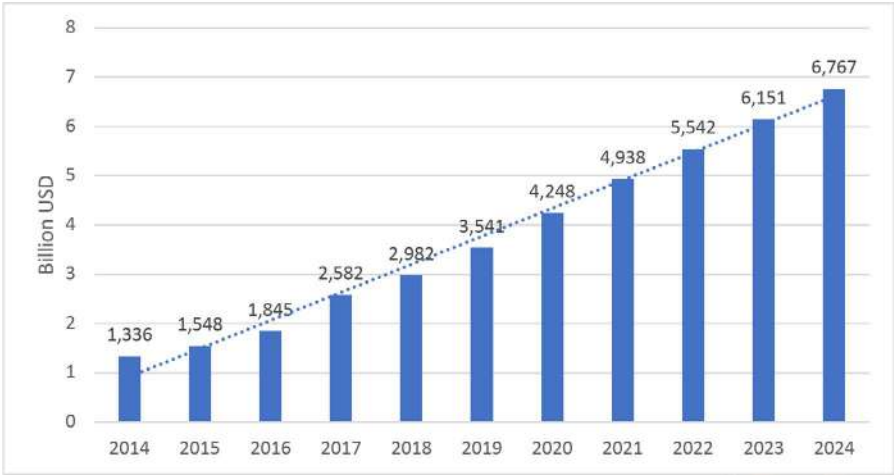
The 2023 Global E-Commerce Ranking data clearly reveals the large-scale concentration in the global digital trade market and the overwhelming market dominance of certain countries. China, ranking at the top, possesses a market size larger than the total of all other countries with a volume exceeding $3 trillion ($3,023,660.00). The USA follows China with a

volume over $1 trillion ($1,163,490.00). The total market share of these two giant economies constitutes more than half of the global e-commerce ecosystem, demonstrating that digital trade is an indicator not only of technological but also of geopolitical and economic power balances. The fact that established economies such as Japan and the UK rank high in the list proves that developed countries have successfully converted their high consumption power and established digital infrastructures into e-commerce volumes.

The graph shows that certain economies in the Developing Countries (DCs) category have made a strong entry into the ranking. In particular, highly populated countries such as Indonesia ($97,140.00) and India ($118,900.00) have reached levels capable of competing with developed rivals such as Germany ($97,320.00) and South Korea ($147,430.00) in total volume. This situation indicates that the acceleration of smartphone penetration, the expansion of the middle class, and the adaptation of the young population to digital platforms in DCs create a great potential for e-commerce. Although the market size in these countries has not yet reached the leading actors, considering the current growth trends and population potentials, they have the potential to climb higher in the global ranking in the coming years. Therefore, the future growth trajectory of global e-commerce will largely depend on the speed of digital transformation in these developing markets.

5.2. Digital Trade in Türkiye

5.2.1. Current Status and Growth Trends of the Turkish Digital Market

Thanks to its robust digital infrastructure, young and tech-savvy population, and rapidly developing mobile penetration rates, digital trade in Türkiye has achieved a growth momentum above the global average in recent years. This dynamic sector has become a critical part of the national economy by encompassing not only online retail sales (B2C) but also B2B (business-to-business) transactions and e-exports.

One of the most concrete indicators of digitalization in the Turkish economy, the e-commerce volume, exceeded 3 trillion TL as of 2024, reaching 19.1% of the total trade volume and increasing its share in the Gross Domestic Product (GDP) to the level of 6.5% (Ministry of Trade, 2025).

These data clearly demonstrate the macroeconomic importance of e-commerce and its driving role in the country's economic growth. In 2024, the e-commerce volume in our country increased by 61.7% compared to the previous year and surpassed 3 trillion Turkish Liras. The number of transactions was realized as 5 billion 910 million units.

Retail e-commerce volume increased by 63.7% in 2024 compared to the previous year, reaching 1 trillion 619 billion Turkish Liras. The number of retail e-commerce transactions increased by 10.1% compared to the previous year, reaching 1 billion 850 million units. Between the years 2019-2024, the Compound Annual Growth Rate (CAGR) of the general e-commerce volume reached 85.66%, while the CAGR of the retail e-commerce volume reached 90.82% in the same period.

In USD terms, the e-commerce volume showed a 274% increase between the years 2019-2024. The e-commerce volume, which was 23 billion 940 million USD in 2019, increased steadily every year, reaching 77 billion 890 million USD in 2023, and 89 billion 580 million USD in 2024 with a 15% increase compared to the previous year. The rate of increase on a USD basis between 2019-2024 was realized as 274%.

In 2024, the share of domestic e-commerce volume within our Gross Domestic Product (GDP), announced as 43 trillion 410 billion 514 million TL by the Turkish Statistical Institute (TurkStat), was 6.5%. (www.ticaret. gov.tr Access Date: 15.09.2025).

5.2.2. Promotion of E-Exports and Digital Logistics Integration

Türkiye's strong growth momentum in digital trade is largely supported by the integration of SMEs in the domestic market into online platforms. The promotion of e-exports, which is one of the main objectives of national trade strategies, aims to facilitate direct access for these enterprises to global markets. According to Turkish Statistical Institute (TurkStat) data, the share of SMEs engaged in e-commerce within total exports has shown a significant increase in the last five years, yet this share lags behind developed economies (TurkStat, 2024). To close this gap, the Electronic Commerce Customs Declaration (ETGB) system, which covers small-volume and express shipments termed as micro-exports, has been popularized. This digitized customs clearance mechanism has accelerated cross-border retail sales, particularly to European and Middle Eastern markets, by reducing the rate at which SMEs encounter bureaucratic obstacles. The fact that the export volume conducted via ETGB showed an increase of approximately 45% in 2023 compared to the previous year is a concrete indicator that

digitalization transforms directly into logistics efficiency (Ministry of Trade E-Export Report, 2024).

The sustainability of e-exports depends on digital logistics integration. While traditional logistics networks focus on high-volume physical goods trade, e-commerce requires the fast and transparent management of small and dispersed shipments (parcel-based). In Türkiye, thanks to the API integrations established by international cargo and courier companies with e-commerce platforms, all processes from order placement to final delivery have become trackable in real-time. This situation, combined with warehousing and dispatch operations using Internet of Things (IoT) sensors, has reduced error rates and delivery times. However, for this integration to reach its full potential, the country's logistics infrastructure needs to be further supported by Industry 4.0 technologies such as smart warehousing systems and AI-supported route optimizations.

In conclusion, Türkiye's competitive power in global digital trade depends on its ability to increase the digital competence of SMEs and the technological capacity of the logistics ecosystem. These incentive mechanisms on a national scale should be supported by digital marketing and marketplace training programs aimed at SMEs, while also aiming to reduce cross-border payment systems and currency conversion costs. Digitalization should be positioned not just as a facilitator for Türkiye, but as a strategic transformation tool.

5.2.3. Regulatory Implications and Policy Needs of Digital Trade

The rapid growth created by digital trade in Türkiye brings along serious challenges for traditional legal and regulatory frameworks. At the forefront of these challenges is the management of international data flows. Global trade depends approximately 80% on cross-border data flows (McKinsey Global Institute, 2022). Although Türkiye strives to largely align with the European Union's GDPR through its personal data protection laws, data localization requirements can increase operational costs for international service providers and cause service interruptions. This situation carries the risk of negatively affecting the competitiveness of local digital platforms and SMEs in the global market. Furthermore, the monopolistic tendencies of global digital platforms are a main agenda item for national competition law authorities. The Competition Authority has conducted an increasing number of investigations against tech giants in recent years to prevent them from abusing their market dominance. The 25% annual increase in the number of these regulatory decisions (2020-2023 period) indicates that national regulatory interventions have become mandatory (Competition Authority Reports, 2024).

Another critical area is the fair taxation of digital services. While traditional tax rules are based on the physical presence of companies, digital platforms may show low or zero physical presence in the Türkiye market where they generate huge revenues. To remedy this problem, Türkiye has started implementing the Digital Services Tax (DST) as of 2020. This tax is collected on the gross revenues generated in Türkiye by global technology companies such as Google, Meta, and Amazon. The DST implementation has created a need to take policy steps compatible with the OECD's international tax reform efforts (Two-Pillar Solution - Pillar One and Two). Türkiye's participation in this global tax reform carries the potential to both protect the tax base and reduce international trade tensions. Consequently, the country's digital trade policies are required to establish a delicate balance between national security, fair competition, and the optimization of tax revenues.

6. Conclusion and Future Implications

6.1. Summary of Key Findings

This book chapter has demonstrated that global trade is undergoing a radical process of change under the influence of digitalization. Digital transformation has democratized the access of SMEs to global markets with the rise of e-commerce, rendered trade in services independent of physical borders, and made supply chains more transparent and efficient through technologies such as Blockchain (Section 3).

However, this transformation has brought along serious governance gaps and challenges. Data localization policies and data privacy regulations (e.g., GDPR) aimed at cross-border data flows have created new barriers in commercial transactions; at the same time, digital services taxes and global tax reform efforts have revealed the necessity of redistributing taxing rights (Section 4). Most importantly, global inequalities in digital infrastructure and competencies (the digital divide) increase the risk of developing countries being deprived of the potential benefits of digital trade.

6.2. Policy Implications

To maximize the potential of digital transformation in global trade and to reduce inequalities, decisive steps must be taken at national and international levels:

- International Cooperation and Standardization: It is imperative to rapidly establish internationally accepted common rules (data

governance standards, cybersecurity protocols) under the umbrella of the WTO or at the regional level, which will strike a balance between the liberalization and protection of data flows.

- Inclusive Development and Capacity Building: To overcome the digital divide, international aid aimed at digital infrastructure investments and technical capacity building programs (e-commerce skills, data analysis training) for developing countries should be prioritized.

- Ensuring Regulatory Compliance: Countries should focus on solutions such as the OECD/G20 Framework (Pillar One/Two) that ensure international consensus on the taxation of digital services, thereby creating a stable tax environment that will reduce trade tensions.

- Protection of Competition: The monopolistic tendencies of global digital platforms should be supervised by developing international competition law cooperation and fair access rules for platforms.

6.3. Future Research Areas

Since the interaction between digital transformation and global trade is a dynamic field, it is of critical importance that future research focuses on the following topics:

1. Qualitative Impact of AI on Trade Models: An in-depth examination of the concrete effects of generative artificial intelligence (Generative AI) on cross-border trade in services and intellectual property flows.

2. Measurement of Digital Trade: The development of new measurement methodologies, considering the inadequacy of traditional statistical methods in measuring the true value of digital trade in services (especially data flows and free services).

3. Resilience of Global Supply Chains: An analysis of to what extent digitalization makes supply chains resilient in the face of geopolitical risks or whether it renders the chain more fragile by creating new cyber risks.

Digital transformation draws an irreversible trajectory in global trade. The future will belong to economies that not only adopt this transformation but can also manage it with fair, transparent, and inclusive rules.

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Chapter 4

Determinants of High-Technology Product Exports in Selected Countries[1]

Cansu Fırtına[2], Ercan Yaşar[3]

Abstract

In the 21st century, the effect of globalization has increased competition among countries. Along with this increasing competition, the concept of technology has become more important for nations. For countries, high-technology products and effectiveness in value-added imports and exports are among the significant factors for the sustainability of growth. For this reason, the determinants of high technology have become an important research topic. This study employs panel data analysis for 105 selected countries over the period 2010-2019 and selects the System-GMM method. Through this analysis, the impact of high-technology determinants on high-technology exports is measured. In the analysis, the dependent variable is high-technology exports, while the independent variables are the education index, foreign direct investments, trade openness ratio, GDP, and patent applications. As a result of the analysis, the one-period lagged value of high-technology exports, L.lnHTE, was found to be significant at the 1% level in the System GMM models. According to the one-step GMM model, there is a significant relationship at the 1% level between high-technology exports and the independent variables. According to the two-step GMM model, a statistically significant and positive relationship at the 1% level was identified between high-technology exports and the education index, foreign direct investments, and trade openness variables. Furthermore, in the two-step GMM model, a statistically significant and positive relationship at the 5% level exists between high-technology exports and both GDP and patent applications.

1. Introduction

The advancement of technology holds significant importance for many sectors, primarily for the economy. The technology possessed by countries influences numerous sectors from a macro perspective, such as the economy, health, education, and security. From a micro perspective, it has a positive effect on saving time and minimizing costs for individuals and firms. The completion of countries' economic development is directly proportional to the technology they produce. Therefore, technology becomes an element of international competition for nations (Erdinç & Aydınbaş, 2020, p. 496; Özer et al. 2018, p. 58). Countries gaining an advantage in this competition depends on the new and high-technology products they manufacture. Consequently, to ensure sustained competitiveness and economic growth, countries must increase the production of high-technology goods within their exports (Akay, 2021, p. 1129). High-technology production signifies the manufacturing of high value-added products that yield high returns (Konak, 2018, p. 58). It also leads to higher quality and productivity through the more efficient use of resources employed in production (Özkan & Yılmaz, 2017, p. 2). Furthermore, high income elasticity is a fundamental characteristic of high-technology products (Buzdağlı, Uzun, & Emsen, 2019, p. 476).

High-technology products were classified by the OECD in 2011 according to technological level into the following categories: high-technology, medium-high-technology, medium-low-technology, and low-technology. The aerospace, computer, and pharmaceutical industries fall into the high-technology category. Motor vehicles, most chemical industries, and electrical equipment belong to the medium-high-technology industries group. Basic metals, plastics containing rubber, and shipbuilding are classified as medium-low-technology. Finally, the low-technology group includes processed food, textiles, clothing, and footwear. The distribution of value-added based on this classification provides information about the development level of countries (Kabaklarlı, Duran, & Üçler, 2018, p. 48).

Technology and High Technology: The concept of technology can be explained by multiple definitions. Technology refers to the sum of knowledge and skills used in producing the tools and instruments created to meet individuals' needs, and since the 19th century, it has significantly influenced economic and social life within society (Türedi, 2013, p. 299). Technology is a crucial factor as a driving force for growth. It can be defined as the total stock of knowledge and experience related to the process, management, marketing, and after-sales support of a produced good (Kibritçioğlu, 1998,

p. 211). Technology signifies the consideration of the tools, techniques, and methodological analyses used in industry as a whole (Harman, Oktar, & Görgülü, 1985, p. 16).

Furthermore, the phenomenon of the social system, which is a significant factor in the formation of economic and political choices, is also an important concept for the development of technology. Societal values are important for the development and direction of technology. Similarly, technology can also be a determining factor for the lifestyle of a society.

In economic literature, technological progress and technological change correspond to different meanings. While technological progress is considered at the macro level and indicates a process where capital-intensive production is prominent, technological change encompasses both capital-intensive and labor-intensive production processes. Technological change does not always mean progress, i.e., a step forward. Sometimes it merely signifies a change in the production process. Shifting from capital-intensive production to labor-intensive production is a technological change, but technological progress refers to a capital-intensive process at the macro level (Bayraktutan & Bıdırdı, 2016, p. 3-4). The dictionary meaning of technology is to process raw information and, after R&D expenditures, to carry out production to offer people more qualified products and services (Batur & Uygun, 2012, p. 74).

While factors such as labor, natural resources, economic and political stability, education level, R&D intensity, and innovation lead to differences in the economic development and growth of developed and developing countries, the most important factor clarifying the state of this gap is the technological infrastructure upon which production is based (Kabaklarlı et al., 2018, p. 1). In the 21st century, technology, as a determinant of the positions countries hold against each other and their economic capacity, is of great importance.

Competitiveness between countries and, consequently, their advantages in foreign trade depend on their potential to produce and renew technology. Developed countries compete with each other because they are aware of the benefits technology will provide, while developing countries have strived to develop themselves in the field of technology (Çelebi, 2002, p. 157; Yıldız, 2024, p. 383). Developing countries can enhance their production performance by developing the products they will export through imported technology transfer (Durmuş, 2020, p. 29). Developing countries that cannot achieve sufficient development in technology run a foreign trade deficit in the long run. Developed countries can create technological difference and

superiority over developing countries through the share they allocate to R&D expenditures (Çelebi, 2002, p. 158). When developed countries in the field of technology fail to convert innovation activities into production for various reasons, the value-added return the country can obtain from technology is limited, and this situation negatively affects growth and development within the country's economy (Akyol & Demez, 2020, p. 57).

Technological development in a country affects its education, health, economy, and many other sectors. For countries and firms, technology contributes to time savings and cost reductions. Technological advancements lead to increased economic and political competition worldwide (Erdinç & Aydınbaş, 2020, p. 499). Advanced technology is used to describe high-quality goods and services produced with minimal input and cost per unit of time in the production process. New technology emerging from the rapid reflection of accumulated knowledge and experience gained in scientific and technological fields to the production and service sectors is defined as high technology (Harman et al., 1985, p. 17).

High technology is used to refer to goods and services. In other words, goods and services obtained through innovation explain the concept of high technology. Firms and industries that achieve superiority in technology gain importance in terms of high-technology supply. These firms, possessing scientific and technological experience and knowledge, invest in high technology by directing their labor force towards R&D expenditures (Kabaklarlı et al., 2018, p. 1). R&D expenditures will increase exports in the high-technology field and, as a result, contribute positively to GDP (Kılıç, Bayar, & Özekicioğlu, 2014, p. 116). The OECD has based its criteria for a product to be considered a high-technology product on the R&D intensities within the manufacturing industry (Erdinç & Aydınbaş, 2020, p. 497). This classification used by the OECD has been defined by grouping it for four different sectors. The classification is as follows: high-technology, medium-high-technology, medium-low-technology, and low-technology (Buzdağlı et al., 2019, p. 477).

Table 1: Technology Classification According to the OECD	
High Technology	• Aerospace, Aircraft and Spacecraft • Pharmaceuticals • Office, Accounting, and Computer Equipment • Radio, Television, and Communication Equipment • Medical, Precision, and Optical Instruments
Medium-High Technology	• Motor Vehicles, Trailers, and Semi-Trailers • Chemicals excluding Pharmaceuticals • Other Transport Equipment (e.g., railways) • Machinery and Equipment (non-electrical)
Medium-Low Technology	• Building and Repairing of Ships and Boats • Rubber and Plastic Products • Coke, Refined Petroleum Products, and Nuclear Fuel • Other Non-Metallic Mineral Products • Basic Metals and Fabricated Metal Products
Low Technology	• Wood Products, Paper Products, Printing, and Publishing • Food Products, Beverages, and Tobacco • Textiles, Textile Products, Leather, and Footwear • Manufactured Products, Recycling

Source: *Adapted from the OECD (2022) classification based on R&D intensity in the manufacturing sector (ISIC Rev.4).*

The OECD bases its criterion for classifying a product as high-technology on the intensity of R&D investments relative to the product's manufacturing cost. Being positioned in the high-technology sector within this classification and ensuring sustainable economic development through the export of high value-added products from this sector is economically crucial for a country's development (Sungur, Aydın, and Eren, 2016, p. 187). It is observed that developed economies which prioritize high-technology exports also place significant importance on R&D expenditures (Yavuz and Uysal, 2020, p. 207). The perspective that emphasizes technology's role in production, suggesting it will lead to major leaps in production, positively influence growth, and consequently provide an advantage over other countries, is referred to as the Schumpeterian Approach (Srholec, 2007, p. 2).

A key characteristic of high-technology products is their high income elasticity (Akay, 2021, p. 1129). In developed countries, an income elasticity greater than one has a growth-enhancing effect, whereas in developing countries, an income elasticity less than one for primary goods means their production and export will negatively impact economic growth (Aytekin,

2020, p. 60). Countries that produce high-technology products obtain high value-added, which not only benefits the national economy positively but also helps determine the development gap between nations (Konak, 2018, p. 57).

Examining the features of high-technology products reveals that they are superior to other technologies and, due to their complexity, require rapid knowledge renewal, continuous research effort, and a solid technological foundation. High-technology industries engage in commercial activities as a result of innovations (Cenikli, 2020, p. 17). However, the commercialization of new high-technology products is one of the most costly stages of product development processes (Easingwood and Koustelos, 2000, p. 27). From the perspective that emphasizes technology's commercial value, high-technology products and services should be regarded as the output of a planned industrial approach, R&D, and innovation (Demirci and Ersoy, 2008, p. 1). The dependence of an industry or firm on science and technology can be measured by determining its R&D intensity (Cenikli, 2020, p. 17). High technology is used to define the technologies of the current period, not the past or the future. A product considered high-technology in the past may be classified as a low-technology product in today's classification due to the rapid change in technology (Akgün and Polat, 2011, p. 30).

Characteristics of High-Technology Products:

- High-technology products have a dynamic and novel structure.

- High-technology products have the potential to generate new inventions.

- Products containing high technology can influence the social behaviors and economic habits of a community.

- High technology possesses the characteristic of being based on science.

- High-technology products create pressure in foreign trade competition, making planning and strategy development crucial for governments (Harman et al., 1985, p. 23).

Table 2: Countries with the Highest Export Market Share in High-Technology Sectors and Türkiye (%)							
Leading Countries	**2013**	**2014**	**2015**	**2016**	**2017**	**2018**	**2019**
Aerospace & Aviation Industry							
United States	30,05	32,09	33,41	33,14	31,55	31,38	30,14
France	17,38	17,38	15,98	15,47	14,84	14,89	15,53
Germany	13,20	12,52	12,34	12,28	11,67	11,36	11,81
United Kingdom	9,74	9,13	9,23	9,27	9,97	9,60	9,42
Türkiye	0,27	0,28	0,26	0,26	0,47	0,32	0,39
Computers, Electronics & Optics Industry							
China	27,84	27,11	28,15	26,40	25,92	26,24	26,18
United States	8,04	8,00	8,13	8,19	7,66	7,26	7,29
South Korea	5,72	5,82	5,99	5,76	6,41	6,76	5,63
Singapore	5,59	5,46	5,40	5,33	5,18	4,90	4,78
Türkiye	0,14	0,15	0,13	0,11	0,10	0,10	0,10
Pharmaceutical Industry							
Germany	15,20	15,35	15,08	14,66	15,19	15,74	14,08
Switzerland	12,46	12,72	12,77	13,56	13,40	12,80	13,29
United States	8,71	9,08	10,19	9,62	8,70	8,34	8,84
France	7,60	6,83	6,10	5,91	5,80	5,59	5,57
Türkiye	0,21	0,21	0,22	0,19	0,18	0,21	0,22

Source: Created using data from the OECD - Main Science and Technology Indicators (MSTI) (2013-2019).

According to Table 2:

- In the aerospace and aviation industry between 2013 and 2019, the country with the largest increase in export market share was the United States. The US's export market share, which was 30.05% in 2013, rose to 30.14% in 2019. Countries that experienced a decline in export market share were France and Germany. France's market share decreased from 17.38% in 2013 to 15.53% in 2019. Similarly, Germany's share declined from 13.20% to 11.81% over the

same period. The United Kingdom's market share remained almost unchanged at around 9%.

- In the Information and Communication Technology (ICT) - computers, electronics, and optics industry, dominance is clearly held by China. China increased its export market share from 27.84% in 2013 to 28.15% in 2015, and despite moderate declines afterwards, its share stood at 26.18% in 2019. This decline does not pose a threat to China's dominance in this sector. The United States increased its share from 8.04% in 2013 to 8.19% in 2016, but it declined to 7.29% by 2019. Similar trends can be observed for South Korea and Singapore following the US. Türkiye appears as the country with the lowest export market share in the ICT industry among the countries examined.

- Examining the pharmaceutical industry table, Germany is seen as a dominant country in export market share. Germany increased its share from 15.20% in 2013 to 15.74% in 2018, asserting its leadership in the sector. Germany's rise was followed by Switzerland with 13.29% and the United States with 8.84% in 2019. France was the country that experienced a decline in its export market share trend. Türkiye, similar to its position in the ICT and aerospace industries, has the lowest export market share in the pharmaceutical sector among the countries studied.

The Importance of High Technology in International Competition: There is no single, universally accepted definition of international competitiveness in the literature. Generally, competitiveness refers to the productive power of firms, industries, countries, or country groups in terms of income and employment within the global competitive environment. It entails comparing a product produced in one country with its counterparts in other countries based on characteristics like quality, price, and reliability (Kelleci, 2009, p. 13). National competitiveness encompasses three key features (**Çivi**, 2001, p. 25):

- The primary goal for countries wanting to be competitive is to increase national welfare. An increase in national welfare can be achieved by emphasizing all activities related to investment, production, and trade, and through the collaborative work of the country's institutions.

- To avoid falling behind competitor countries, nations must develop unique new capabilities and features in the production, management, and distribution of goods and services.

- There are numerous indicators that measure and demonstrate a country's competitiveness.

In the literature, the concept of competitiveness is linked to the technological structure of countries. The increase in national welfare and quality of life standards is directly proportional to the share of high technology within exports (Cenikli, 2020, p. 24). However, for this to happen, conditions such as countries' ability to incorporate high technology into their exports, improving their infrastructure for a healthy growth model, and strengthening their human capital must be met. Achieving exports depends on countries producing low-cost but high-quality products. For this, the country's level of technology, qualified labor force, and R&D expenditures become determining factors (Göçer, 2013, p. 218). Because the competitive environment involves constant innovation and change, businesses seek innovation. While pursuing this, new and alternative techniques suitable for the market structure must be developed. The success of businesses in constant competition can be measured by the concepts of cost, quality, flexibility, speed, and the continuity of innovation (Zerenler, Türker, and Şahin, 2007, p. 655).

Table 3: Global Competitiveness Index		
Current Environment	• Infrastructure (Transport, Energy, Telecommunications) • Macroeconomic Stability • Institutional Quality (Rule of Law, Regulatory Efficiency)	New methods for security and protection of rights
		New measurement methods related to electricity, energy, and water infrastructure
		Advanced macroeconomic indicators
Human Capital	• Health (Life Expectancy, Public Health) • Education & Skills (Quality of Schooling, Workforce Competencies) • Digital Literacy and Adaptability	New indicators related to working life
		New assessments regarding human capital skills
Market Conditions	• Market Size (Domestic and International) • Degree of Competition (Antitrust Laws, Market Dominance) • Demand Conditions (Sophistication of Local Customers)	Customs and taxation facilitation measures
		Elements that will support capacity increase
Innovation Ecosystem	• Research & Development (R&D) Expenditure • Business Dynamism and Entrepreneurial Culture • Scientific and Technological Capacity • Collaboration between University and Industry	Measurement of Information and Communication Technologies
		New measurements related to market capacity
		Entrepreneurship development and regulation
		Ensuring labor force diversity

Source: *The Global Competitiveness Report, 2016-2017.*

The Global Competitiveness Index report determines the methods through which countries can compete based on their level of development.

In economics, the factors of institutions, health, infrastructure, primary education areas, and the macroeconomic environment are defined as a factor-driven economy. Here, countries can compete based on factors (natural resources, unskilled labor). This involves low wages and, consequently, low productivity, meaning competition is based on price through the production of simple goods.

As a country becomes more competitive, i.e., as its development level increases, both productivity and wages rise. At this point, countries are defined as having an efficiency-driven economy. Countries achieve more efficient production by improving product quality. Better quality products, more developed financial markets, and larger domestic and foreign markets enhance competitiveness.

Finally, countries reach a stage focused on innovation. This stage is defined as the innovation-driven stage. Here, businesses gain competitiveness by employing the most sophisticated production processes and creating new and unique products (Global Competitiveness Index Report, 2014-2015, p. 10).

Table 4: Competitiveness Index and Country Rankings				
Countries / Year		**Competitiveness Index**		**Country Rankings**
		2019	**2022**	**2019**	**2022**
1	Denmark	81,17	100	10	1
2	Switzerland	82,33	98,92	5	2
3	Singapore	84,78	98,11	1	3
4	Sweden	81,25	97,71	8	4
5	Hong Kong	83,14	94,89	3	5
6	Netherlands	82,39	94,29	4	6
7	Taiwan, China	80,2	93,13	12	7
8	Finland	80,22	93,04	11	8
9	Norway	78,1	92,96	17	9
10	USA	83,67	89,88	2	10
11	Türkiye	62,14	51,44	61	52

Source: *IMD, 2022.*

The Global Competitiveness Index influences countries' productivity levels through institutions, policies, and factors. Microeconomic and macroeconomic infrastructures assess nations' international competitiveness. The table above attempts to identify the competitiveness index values of countries for 2019-2022 and their respective positions in the global rankings. In the global competitiveness ranking, Denmark held the top position worldwide in 2022. Denmark was followed by Switzerland, Singapore, Sweden, and Hong Kong, respectively. Türkiye, with an index value of 62.14 in 2019, was ranked 61st in the global standings. By 2022, while its index value was 51.44, it ranked 52nd globally. This ranking indicates that Türkiye needs to improve its competitiveness.

Criteria Determining High Technology: Societal structures have transitioned into a new era alongside changes and developments in technology (Konak, 2018, p. 66). For countries to achieve high-technology product export capacity, it requires the combined use of various components in the production of these goods (Güneş & Akın, 2019, p. 13). The determinants of high-technology product exports have been examined in numerous studies. Variables considered as determinants include economic growth (GDP), R&D expenditures, number of patent applications, fixed capital investment, number of skilled employees, trade openness ratio, foreign direct investments, and the savings rate. This section will address these variables.

- R&D Expenditures: To avoid obsolescence and sustain their presence in international competition, countries must push the boundaries of innovation. The share of GDP allocated to R&D spending is crucial for fostering innovations (Güneş & Akın, 2019, p. 13-14). Differences in income and growth, often interpreted as degrees of superiority between countries, are fundamentally linked to R&D expenditures. R&D spending by countries increases the production of high-technology goods, and since the resulting products are high value-added, they support economic growth by increasing the country's Gross Domestic Product. Here, R&D expenditures have been identified as a positive factor in high-technology product exports (Kılıç et al., 2014, p. 2). While R&D spending by firms creates profit motives for future periods, from a national perspective, it is about gaining strength within the competitive landscape (Erdinç & Aydınbaş, 2020, p. 7).

- Number of Patent Applications: Patents are the most vital legal instrument for protecting intellectual property rights (Langinier &

Moschini, 2002, p. 1). Patents, by granting the owner all rights over new products and production techniques and being considered an R&D indicator, are also significant for technological advancements. An increase in the number of patent applications and grants in countries producing high-technology goods signifies the development of technologies, the creation of new technologies, and a numerical increase in new products in that country. China is the prime example of this (Konak, 2018, p. 13).

- Fixed Capital Investments: Another criterion determining high technology is fixed capital investment. Fixed capital investments positively impact the national economy in the long term by increasing production, employment, and productivity (**Özen**, 2015, p. 152). Fixed capital investments can be considered a positive factor in technological development and the increase of high-technology product exports (Cenikli, 2020, p. 17). China, being a country with high fixed capital and a leader in the export of advanced technology products, supports the previous statement (Erdinç & Aydınbaş, 2020, p. 501).

- Number of Skilled Employees: Firms engaged in production activities to high standards are more successful in countries with a qualified workforce. Producing qualified goods requires workers with high levels of human capital. As the number of educated individuals in a country increases, the number of skilled employees also rises in parallel. This explanation supports the expectation that the number of skilled employees will positively influence high-technology product exports (The Global Human Capital Report, 2017, p. 3).

- Trade Openness Ratio: Another variable influential in and often included in analyses of high-technology product exports is the trade openness ratio. The trade openness ratio positively affects the performance of high-technology product exports. Simultaneously, it allows for sourcing missing inputs for high-technology products manufactured domestically from abroad (Güneş & Akın, 2019, p. 13-14).

- Foreign Direct Investments (FDI): Inward technology transfers can foster innovation. Therefore, FDI, directly or indirectly, can enhance high technology in a country (Gökmen & Turen, 2013, p. 218). Countries with a capital gap have a greater need for foreign direct investments to increase production, exports, and productivity. Multinational firms have several reasons for making direct investments:

one is the relatively cheaper factor costs in the host country, allowing the firm to reduce costs and increase profitability in production. The second is the wide market share of the target country. Finally, investors may seek to utilize the knowledge, technology, and human capital accumulation – i.e., positive externalities – present in the host country (Güneş & Akın, 2019, p. 15).

- Savings Rate: Increasing the savings rate is crucial for investments in countries. Producing high-quality goods in terms of qualification in a country depends on the conversion of savings into investments in high value-added product areas. Countries that are high-technology exporters have deemed the savings rate important in this field (Güneş & Akın, 2019, p. 16).

2. Foreign Trade Theories and Technology

The foundation of international trade theory is based on Adam Smith's work, "The Wealth of Nations." Smith, considered the founder of the Classical School of Economics, addressed free foreign trade and the benefits of specialization in this trade in his work. Smith's "Theory of Absolute Advantage," one of the foreign trade theories, posits that a country should specialize in producing the good it can produce at a lower cost compared to other countries, export the products it has specialized in to those countries, and import from other countries the products that are costly for it to produce. Here, the cost concept refers only to the homogeneous labor factor.

Smith's theory proved insufficient in explaining international trade, leading to David Ricardo's "Theory of Comparative Advantage," which aimed to fill this gap and contribute to future literature. According to this theory, even if a country is more efficient and superior in producing all goods compared to other countries, it should specialize in the good it produces at a comparatively lower cost and import the goods in which it is less superior. The advantages of comparative cost, put forward by Ricardo to explain international trade, are seen as an element supporting national welfare and growth (Ricardo, 2018, p. 91). John Stuart Mill, criticizing Ricardo's theory, also incorporated demand conditions in international trade. According to Mill's "Law of Reciprocal Demand," the determination of terms of trade depends on knowing the intensity of one country's demand for the other country's goods (Öztürk, 2003, p. 112).

E. Heckscher and B. Ohlin attempted to explain the points where comparative advantages were lacking with the "Factor Endowment Theory." The Heckscher-Ohlin theory explains that a country, having a cost advantage

in a particular factor used intensively in producing a good, should concentrate on producing goods that use that factor intensively to gain a comparative advantage and specialize in that area by producing those goods more cheaply (Bayraktutan, 2003, p. 178). From the 1960s onwards, the increase in intra-industry trade led to the emergence of new trade theories. New trade theories gained importance in explaining the reasons for trade between goods that are qualitatively different, due to countries' varying structures and development levels (Yüksel & Sarıdoğan, 2011, p. 201). Keesing and Kenen's "Skilled Labor Theory" attributed the cause of international trade among developed countries to differences in skilled labor. In other words, skills play a significant role in trade (Ağcadağ & Gövdere, 2021, p. 4). Countries rich in skilled labor specialize in production by intensively using this factor in manufacturing goods and participate in international trade. The Skilled Labor Theory is essentially another version of the Heckscher-Ohlin Theory and is also known as the "Neo Factor Endowment Theory" (Bayraktutan, 2003, p. 180).

The "Technological Gap Hypothesis," one of the new trade theories, explains how developed industrial countries, by inventing a new product or production method, become the initial exporters of such goods (Ağcadağ & Gövdere, 2021, p. 6). Since this theory is protected by certain laws (patents, intellectual property rights), imitating the new product or obtaining it through free trade is quite difficult (Yüksel & Sarıdoğan, 2011, p. 201). However, with the expiration of these laws, the products can be imitated or supplied through free trade, leading to cheaper production of these goods in countries with cheaper labor and natural resources. As a result, countries that were initially exporters by producing new products eventually become importers (Dura, 2000, p. 7).

Another foreign trade theory is the "Product Cycle Hypothesis" put forward by Raymond Vernon, which is a developed form of the Technological Gap Hypothesis. The theory primarily tries to explain the foreign trade between the country introducing a new product and the country imitating it (Öztürk, 2003, p. 122). According to this hypothesis, the emergence of new products in foreign trade depends on technology supported by skilled labor and R&D expenditures. The Product Cycle Hypothesis concerns the shift of the product's initial exporter country towards the imitator country (Yüksel & Sarıdoğan, 2011, p. 201).

The "Monopolistic Competition Theory" or "Theory of Imperfect Competition," developed by Chamberlin and Robinson, is a theory forming the basis of international trade theories. The aforementioned theories

criticized the views that goods are homogeneous in markets where perfect competition conditions are accepted for goods and factor markets. Thus, firms wanting to become more efficient and differentiate their products create conditions of monopolistic competition. Foreign trade occurs as countries specialize in a small number of products to benefit from economies of scale; trading countries become exporters of the new and improved product and import other product varieties that are substitutes for these products (Yüksel & Sarıdoğan, 2011, p. 202).

4. Exports and High Technology

Export, in the most general terms, means a country selling the products it produces to other countries. However, export entails not only selling goods and services produced within its own borders to other countries but also selling products imported from other countries to yet other countries (Konak, 2018, p. 69). Because resources in the world are scarce and human needs are infinite, no country can meet its needs solely with its own resources. This situation supports the necessity for countries to depend on each other and indicates the importance of trade (Kabal, 2007, p. 11).

After the industrial revolution, industrialization policies began to be implemented in many developed or developing countries, resulting in transitions from agricultural societies to industrial societies. Innovations primarily enabled the industrial revolution while, on the other hand, directing foreign trade firms into constant competition and compelling them to produce higher quality products at lower costs. Schumpeter explained the power of technology in competition through the concept of innovation.

According to Schumpeter, innovation is defined as follows: producing a product that did not exist, improving an existing product to turn it into a new product, developing new production methods during this transformation, finding new raw material sources to enter new markets, and developing new organizational methods to achieve this formation (Uzay, Demir, & Yıldırım, 2012, p. 148-149).

Exports are of great importance for increasing a country's gross national product and its production (Tebaldi, 2011, p. 343). The knowledge and capability endowments possessed by countries greatly influence increasing their production. Explaining the concept of "capabilities" here will be useful. Hidalgo emphasizes that capabilities generally include social communication networks, beyond the tangible and intangible inputs used in production, and that they are the building blocks of production. Accordingly, at any given time, countries are endowed with certain capabilities, while products

contain specific capabilities. The complexity of a product is related to the number of capabilities it possesses, while a country's economic complexity is related to the capabilities it possesses. According to Hidalgo; "what" a country produces and exports has become a more important issue than "how much" it produces and exports (Hidalgo, 2009, p. 2). A country's ability to produce a wide range of products does not, by itself, imply a complex production structure when these products are ordinary in terms of technological content and knowledge intensity (Çınar et al. 2021, p. 176).

The importance of exports for both developed and developing countries can be summarized as follows:

- It stimulates competition by expanding market share in foreign trade.

- Increased competition in international trade improves efficiency in the economy by developing alternative uses for resources and through the diffusion of technical knowledge and new technologies. It enables the emergence of new skills and, consequently, the production of high-quality products (Grossman & Helpman, 1990, p. 2).

- Competition among countries provides some significant advantages. Decreasing labor costs increase not only domestic demand but also foreign demand for new products, creating new investment opportunities. Foreign investments lead to positive developments for countries, such as enabling specialization and benefiting from comparative advantages (Rivera-Batiz & Romer, 1991, p. 1-4).

- Exports enable countries with limited domestic production scope to produce on an economic scale.

- Exports also have a positive impact on the balance of payments. As countries with increasing shares in foreign trade experience foreign currency inflows, it helps reduce the foreign exchange pressure on the country's external debt. Thus, the purchase of goods and services increases, enhancing the country's import capacity for products that will be domestically produced and supporting economic growth (Şimşek, 2003, p. 43-44).

The Importance of High Technology for Export Performance: After the Industrial Revolution, industrialization policies began to be implemented in many developed and developing countries, leading to transitions from agricultural to industrial societies. Innovations primarily facilitated the formation of the Industrial Revolution while, on the other hand, directing firms in foreign trade towards constant competition, paving the way for producing higher quality products at lower costs. Schumpeter explained the

power of technology in competition through the concept of innovation. Schumpeter defined the concept of innovation as follows: producing a product that does not exist or improving an existing product to make it a new product, developing new production methods during this transformation, finding new raw material sources to enter new markets, and developing new organizational methods to achieve this formation. Some firms innovate to reduce production costs and increase demand, aiming to raise their profit margins and market shares in exports (Uzay et al., 2012, p. 149).

Schumpeter embraced the concept of creative destruction. This idea posits that firms competing in a free market must continuously innovate and develop new production stages. Firms that act contrary to this idea face the threat of being eliminated from the market. Schumpeter argued that the impulse driving capitalism is new production methods, new consumption patterns, and new markets (Aghion & Howitt, 1990, p. 2).

A product that meets new consumer needs and is in higher demand can be considered a new product. As the degree of innovation increases, so does the product's level of appeal. Producing new knowledge is quite costly. In foreign trade competition, generating new knowledge is the most significant profit countries can achieve (Harman et al., 1985, p. 22).

The concepts of process innovation and product innovation are crucial here. Reducing costs requires process innovation, while product diversification requires product innovation. Product innovations encompass R&D activities and are important for dynamic industries, whereas process innovation becomes crucial in stages where productivity increases and price competition are more intense (Uzay et al., 2012, p. 148-149).

The capacity of countries to develop their economies depends on multiple factors: high-technology sectors, export competence, and high value-added products are among the significant ones. In today's competition, export capability and technology products are distinguishing features for global markets (Gökmen & Turen, 2013, p. 217). Governments implement incentivizing policies to help countries increase their export share. Accordingly, the impact of innovation in the production and export process involving high technology, high-technology product trade, and the resulting economic performance has been demonstrated (Tebaldi, 2011, p. 343).

In today's world, the criterion determining a country's potential is not so much the quantity of its existing resources but rather the level of its knowledge, the practical application of that knowledge, the quality of its human capital, and how the economy defines innovative action by the

country. The competitiveness of developed countries in foreign trade is based on the development of high technologies and the subsequent entry of high-technology products and services into the world market. Long-term economic growth rates in developed countries occur under the conditions of a knowledge-based economy, supporting and expanding the global knowledge base (Gerasymchuk & Sakalosh, 2007, p. 195). With globalization and technological advancements, the world has become an information society, borders have begun to disappear, and economies have entered a process of liberalization. This process has made increasing labor quality, producing knowledge and incorporating it as a factor of production into the model, and the continuity of education mandatory. As a result of such changes, human capital and knowledge capital have begun to replace physical capital. Thus, productivity increases for scarce factors of production, leading to higher savings, while cost reductions support economic growth (Köse & Gültekin, 2020, p. 95).

The ability of countries to compete in foreign trade and their export performance depend on the technological intensity of the products they produce (Akay, 2021, p. 1129). The sector experiencing the fastest growth in foreign trade is the one with intensive high-technology exports. Therefore, the share of high-technology products is greater within the exports of developing countries (Srholec, 2007, p. 228). The importance of high-technology product production within exports can be listed under several headings:

- Firstly, high-technology products are the sector achieving the highest growth momentum in foreign trade (Baesu et al., 2015, p. 372). High-technology products, which possess advanced and rapidly changing technologies, represent the sector with the highest barriers to entry (Zhang, 2007, p. 112). Depending on the proportion of high-technology products in exports, a transition to a knowledge-based economy has occurred in one respect (Moraes & Ivette, 2018, p. 2). Technological advancement in production can increase both the volume of exports and export revenues for countries and firms. This situation provides an opportunity for countries and firms to be strong in foreign trade and to sustain this strength (Erdinç & Aydınbaş, 2020, p. 498).

- The competitiveness of countries in foreign trade can be determined based on the criterion of productivity level. Competitiveness is influenced by multiple parameters (e.g., relative prices), but countries' ability to maintain and increase their competitive share in the long

run is explained by technological transformation and the resulting productivity gains. Increased productivity is directly related to technological capacity in production and the potential of a qualified workforce. A strategy aimed at devaluing national currencies for competitiveness can lead countries into a race to the bottom in terms of exchange rates and potentially result in failure in this race (Eşiyok, 2014, p. 105).

The tables below address the share of high-technology exports within manufacturing exports for developed and developing countries.

Table 5: Share of High-Technology Exports in Manufacturing Exports for Developed Countries						
Country	**2010**	**2012**	**2014**	**2016**	**2018**	**2020**
Canada	15,499	15,615	14,665	14,098	15,421	15,303
France	26,294	26,662	27,440	27.909	25.917	23.144
Germany	16,884	17,221	17,206	18,079	15,744	15,499
Italy	8,014	7,592	7,735	8,289	7,475	8,891
Japan	19,081	18,201	17,751	17,592	17,269	18,601
South Korea	32,074	28,217	30,058	30,523	36,390	35,708
Netherlands	27,825	25,457	24,526	23,985	22,491	23,140
Switzerland	25,807	26,057	26,657	27,334	13,317	12,844
United Kingdom	23,286	23,446	22,192	23,545	22,319	22,997
United States	22,606	20,163	20,467	22,411	18,474	19,483

Source: World Bank World Development Indicators, 2022.

According to the data for developed countries in Table 5, South Korea is the leading nation with the highest share of high-technology exports within its manufacturing exports. Maintaining its leadership among these countries from 2010, South Korea held a share of 32.074% in 2010 and continued this trend until 2020. South Korea is followed by the Netherlands, France, Switzerland, the United Kingdom, and the United States. Among the developed countries, Switzerland experienced the sharpest decline in its share in 2020. Canada and Germany did not experience significant fluctuations in their shares between 2010 and 2020. The country with the lowest share of high-technology exports within its manufacturing exports is Italy.

Table 6: Share of High-Technology Exports in Manufacturing Exports for Developing Countries						
Country	2010	2012	2014	2016	2018	2020
Argentina	7,684	6,636	7,061	8,982	5,402	6,903
Brazil	12,589	11,887	12,371	15,999	14,743	11,350
China	32,123	30,848	29,695	30,242	31,467	31,273
Czechia	17,864	18,580	17,365	16,868	19,551	22,579
Egypt	0,953	0,616	1,252	0,504	0,865	2,677
India	7,723	7,699	9,217	7,660	9,040	11,032
Indonesia	12,077	10,677	9,281	7,998	8,212	8,425
Russia	9,373	9,056	12,088	15,745	11,318	9,204
Türkiye	2,194	2,154	3,379	3,038	2,673	3,152

Source: World Bank, 2022.

The table above examines developing countries, and we can clearly observe China's dominance in the high-technology sector. China is a country with the potential to compete with developed nations and has the highest share of high-technology exports compared to other developing countries. Looking at the table, the countries with the lowest share of high-technology production within their export portfolio among developing countries are Egypt and Türkiye. Czechia, Brazil, and Indonesia have similar competitive shares amongst themselves; however, it is observed that the Czech Republic increased its export share in the high-technology sector in 2020. India, starting with a rate of 7.7% in 2010, achieved positive growth by 2020, reaching an 11% export market share. Although Russia showed good development in 2016, it experienced a decline again by 2020.

Table 7: Share of Information and Communication (ICT) Goods Exports in Total Exports (%)		
Yıl	Türkiye	Worls
2000	3,68	15,12
2001	3,36	14,63
2002	4,48	14,80
2003	4,20	14,93
2004	4,64	15,20
2005	4,39	14,28
2006	3,71	14,23
2007	2,68	13,15
2008	1,82	12,24
2009	1,97	13,08
2010	1,83	12,86
2011	1,65	11,64
2012	1,73	11,46
2013	1,71	11,32
2014	1,87	11,42
2015	1,79	11,94
2016	1,47	12,13
2017	1,33	12,35
2018	1,23	12,47
2019	1,14	12,65
2020	1,00	14,32

Source: World Bank Database

The table above examines the share of Information and Communication Technology (ICT) goods exports in total exports for Türkiye and the world. Compared to the global average, Türkiye significantly lags in ICT goods exports. In 2000, the share of ICT goods exports in Türkiye's total exports was 3.6%, but this declined to 1% by 2020. For the world, the share of ICT goods exports in total exports was 15.1% in 2000, declining to 14.3% by 2020. A common point for both Türkiye and the world is the proportional increase observed in 2004.

The Role of Manufacturing and High-Value Exports in Economic Development: One of the most crucial development strategies for countries is to enhance export performance through high-quality and competitive production. Economic growth, driven by increasing trade volume and openness, is significantly influenced by a country's export performance. Therefore, being competitive in foreign trade is becoming increasingly important.

Relying on cheap labor and low-price competition to enter international markets can lead to negative outcomes in the terms of trade and cause a decrease in revenues from international trade. Consequently, it is necessary to increase earnings by producing and exporting high value-added products (Güneş & Akın, 2019, p. 12).

A country's level of development can be determined by the position of its manufacturing industry within the national economy. For countries, the composition of exports has started to become more important than the sheer volume of exports. To explain the process and transformation within the export composition of the manufacturing sector, distinctions have been attempted by considering technology, knowledge level, and labor quality.

For the manufacturing sector to become a driving force in economic growth, the share of high-technology products in the production and export composition must increase. Poorer countries tend to have a narrower manufacturing base, while developed countries can possess a broader one. Industrial composition changes depending on the country's development level. As income rises, the composition of the manufacturing industry shifts, defined in some studies as a transition "from light industry to heavy industry." Changes in the value-added of the manufacturing sector indicate the process and evolution of its structure. Therefore, an increase in the share of manufacturing value-added in GDP represents positive developments for a country.

One of the most important features of the manufacturing sector is that it possesses higher labor productivity compared to the agriculture and service sectors. Employment growth in manufacturing also supports an increase in average labor productivity. For instance, products that can enhance productivity in the agricultural sector (like machinery, fertilizer, and pesticides) and in the service sector (like transportation vehicles, communication, and information technologies) are developed and produced by the manufacturing industries.

Industrial value-added represents the net output obtained from

the difference between an industry's gross output and its intermediate consumption. It is one of the best indicators of a country's level of industrialization. The share of manufacturing value-added in GDP shows the position of the manufacturing sector in the economy and the country's development capacity.

Table 8: Manufacturing Value Added as a Percentage of GDP for Developed Countries (%)

Country	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Canada	10,2	10,3	10,2	10	9,9	9,9	9,9	9,8	9,8	9,6	8,5
France	10,3	10,6	10,5	10,4	10,5	10,4	10,5	10,4	10,2	10,1	9,4
Germany	19,6	20,4	20	19,9	20,4	20,3	20,7	20,9	20,8	19,9	17,4
Italy	14,1	14,2	14	14,1	14,2	14,4	14,6	14,9	15	14,8	14,3
Japan	20,5	20	20,1	19,7	20,2	20,8	20,6	21,1	21,4	21,8	19,7
South Korea	21,7	20,9	21	21	20,9	20,4	20,6	19,9	18,9	18,6	18,3
Netherlands	10,6	10,9	10,9	10,8	10,9	10,8	10,8	11,1	11,3	11,2	10,9
Switzerland	17,1	18,4	17,7	17,8	17,7	17,5	17,9	18,4	18,9	19,1	19,2
United Kingdom	10,1	10,2	9,9	9,6	9,6	9,4	9,2	9,2	9,3	9	8,6
United States	12,3	12,2	11,8	11,9	11,9	11,7	11,3	11,4	11,5	11,5	10,7

Source: UNIDO, 2022.

The table above provides the manufacturing value-added as a percentage of GDP for developed countries. In 2010, South Korea was the leading country with a value of 21.7%, and despite slight declines until 2020, it maintained its importance and position in the economy. Similarly, Japan, having the second-highest manufacturing value-added ratio, is among the countries that have preserved their economic development strength. Germany, Switzerland, and Italy are among the countries with good performance in terms of industrialization level, as indicated by their manufacturing value-added shares. Among the developed countries, the nations observed to have the lowest manufacturing value-added are the United Kingdom and Canada. The fact that almost every country experienced a decline in 2020 suggests that this was likely due to the global pandemic, which affected the entire world.

5. Literature

Braunerhjelm & Thulin (2008) analyzed the relationship between R&D expenditures and high-technology exports for OECD countries between 1981-1999 using panel data analysis. They concluded that a one-unit increase in R&D expenditures led to a three-unit increase in high-technology exports, while market size had no significant effect.

Vogiatzoglou (2009) examined the determinants of high-technology exports for 28 countries (2000-2005) using panel data analysis. The study found that determinants like R&D expenditures and human capital played a decisive role in the export of these products, while the real exchange rate (price competitiveness) had negative effects.

Özer & Çiftçi (2009) analyzed the relationship between R&D expenditures and total exports, high-technology product exports, and ICT exports for 19 OECD countries (1993-2005). They identified a positive and high-correlation relationship between R&D expenditures and both total exports and high-technology product exports.

Gökmen & Turen (2013), using panel cointegration analysis for 15 EU countries (1995-2010), found that economic freedom, foreign direct investment (FDI), and human development had a significant positive impact on high-technology product exports. Granger causality results indicated causality from FDI, human development, and economic freedom to high-technology exports, and from high-technology exports and economic freedom to human development.

Göçer (2013) investigated the impact of R&D expenditures on high-technology product exports for 11 Asian countries (1996-2012) using panel

data analysis. The study concluded that a 1% increase in R&D expenditures led to a 6.5% increase in high-technology product exports and a 0.6% increase in ICT exports. Causality analysis showed that increases in R&D directly affected high-technology and ICT exports and indirectly affected the trade balance.

Sandu & Ciocanel (2014) studied the relationship between innovation and high-technology product exports for 27 European countries (2006-2010) using panel data analysis. Using public and private sector R&D expenditures and employment in knowledge-intensive sectors as innovation indicators, they found a positive relationship. Private sector R&D expenditures had a greater impact on high-technology exports than public R&D. A 1% increase in public R&D led to an 8% increase in exports after two years, while a 1% increase in private R&D led to a 9% increase in the same year.

Baesu et al. (2015), using panel data analysis comparing fixed and random effects models for EU countries (1994-2011), found that the number of employees in high-tech industries positively affected the number of patents, while R&D expenditure per capita had a negative impact. Other factors like education spending, government R&D, economic development, number of S&T employees, and export levels had no effect on innovation performance in the high-tech sector.

Kızılkaya et al. (2016), analyzing BRICT countries (2001-2011) with panel data, found that trade openness, R&D expenditures, and patent applications positively affected high-technology exports.

Mehrara et al. (2017), using Bayesian Model Averaging (BMA) and Weighted Average Least Squares (WALS) for 24 developing countries (1996-2013), concluded that rule of law (for institutional quality), imports (as a measure of openness), human capital, and GDP were the most important variables affecting high-technology exports in developing countries.

Kızılkaya et al. (2017), studying 12 developing countries (2000-2012) with panel data, found that FDI and trade openness positively influenced high-technology product exports.

Kabaklarlı et al. (2018), analyzing OECD countries (1989-2015) using panel data, concluded that FDI and patent applications positively affected high-technology product exports. They emphasized the importance of innovation and noted a shift in export structures towards technology-intensive products like ICT, computing, pharmaceuticals, aerospace, and electronics, which are linked to productivity and GDP growth.

Gaur et al. (2020), empirically analyzing 15 developed and developing

countries (2007-2018), found that R&D expenditures and gross capital formation significantly increased high-technology exports. Outward-oriented policies with lower tariffs, developed financial markets, and higher GDP per capita facilitated high-technology exports. A one-unit increase in the real effective exchange rate increased high-technology exports by 0.104 units.

Erdinç & Aydınbaş (2020), examining 16 selected countries (2007-2018) with panel data (comparing fixed effects, random effects, and GMM models), found a significant positive relationship between high-technology product exports and both GDP and the number of patent applications. A statistically positive relationship was also found with the number of scientific journal articles.

Akay (2021) performed time-series clustering analysis on high-technology export data for Türkiye and EU countries (2007-2018) to determine Türkiye's position. Using artificial neural networks, the relative importance of determinants for Türkiye was assessed. The number of patent applications had a 100% impact level on high-technology exports in Türkiye. FDI had a 59.5% effect, R&D expenditures ranked third with 25.3%, and the Trade Openness Ratio was the least influential variable at 15.6%.

6. Methodology

6.1. Panel Data - Dynamic Panel Data Model and the GMM Method

Panel data analysis offers several advantages over other econometric research methods. The most important feature of panel data analysis is that it combines time series and cross-sectional series, creating a dataset with both time and cross-sectional dimensions. The panel data model has certain advantages over time series analysis. Firstly, in panel data models, the use of both cross-sectional and time series data increases the number of observations. This raises the degrees of freedom and reduces the likelihood of a high degree of linear relationship among the explanatory variables. Therefore, the panel data method allows for more reliable econometric estimates (Hsiao et al., 2002, p. 3 Çifçi et al., 2018, p. 115).

Another advantage of panel data analysis is that it enables the construction and testing of more complex behavioral models than those possible with only cross-sectional or time series data. This advantage ensures that omitted variables, which can lead to significant deviations in estimation results in studies using only time series or cross-sectional data, do not pose a major

problem in panel data analysis (Hsiao et al., 2002, p. 3). However, panel data analysis brings along the characteristics and problems of time series as well. To minimize these problems, static and dynamic models of panel data analysis have been investigated. The Generalized Method of Moments (GMM) and its system version, one of the dynamic panel data analysis methods, have begun to be widely used (Dökmen, 2012, p. 46).

Dynamic models are defined as models where lagged values of the dependent variable are included as independent variables (Adam, 2024, p. 84).

The general representation of dynamic models is as follows (Hsiao et al., 2002, p. 69).

- $Y_{it} = Y_{(i,t-1)} + \beta1\ X_{it} + \eta i + \lambda t + \varepsilon_{it}$ i=1,....,,N and t=1,....,T (1)
- X_{it}, "Kx1" the vector of independent variables in the dimension;;
- β_1, "Kx1" the matrix of coefficients in the dimension;
- $Y_{i,t-1}$, the lagged value of the dependent variable Y_it
- ηi unobserved individual effects
- λ_t, unobserved time-specific effects
- ε_{it} epresents the effect of unobserved variables that vary across cross-sectional units and over time (the error term). In the model, it is assumed that ηi and λt are constant.

In dynamic models, the correlation between the lagged value of the dependent variable and the error term leads to biased and inconsistent results in the estimates (Baltagi, 2005, p. 135). To address this issue of bias and inconsistency, instrumental variables are used in place of the lagged dependent variable. The relationship established in the dynamic model creates an endogeneity problem between the explanatory variables and the error term. In this case, the GMM estimation methods, a dynamic panel data method developed by Arellano and Bond (1991), are used to solve the problems of endogeneity and autocorrelation (Arellano and Bond, 1991, p. 278).

Among the estimators based on the GMM method, the estimator developed by Arellano and Bond (1991) is widely used. This approach, known as Difference GMM, addresses the model within the framework of the first differences of the variables to eliminate specific effect components and uses lagged values of the independent variables as Instrumental Variables. Another dynamic model estimator based on the GMM method

is the System GMM approach developed by Arellano and Bover (1995). This approach is based on combining the difference equation with the level equations. Blundell and Bond (1998) revealed that Difference GMM has weak estimation power in finite samples and its coefficient estimates are biased, and they determined that System GMM has higher estimation power (Yaşar, 2021; Dökmen, 2012, p. 46).

The situations where the two aforementioned GMM estimators are used are listed below (Yaşar, 2021):

- When the time dimension (T) in the panel data is smaller than the cross-sectional dimension (N), i.e., when the number of observations is greater than the time span;

- For cases where a linear functional relationship exists;

- For cases involving a single, dynamic dependent variable influenced by its past values;

- When the independent variables are not strictly exogenous;

- For cases with fixed individual effects;

- Finally, GMM estimators are used in the presence of heteroskedasticity and autocorrelation over time, but not across cross-sectional units.

6.2. GMM Estimation Methods

Arellano (2003) presented the GMM model as follows:

$Y_{it}=Y_{i(t-1)} +X_{it} \ \beta+n_i+ u_{it}$, and E($u_{it} /X_{i1},.........,X_{iT} \ n_i=0$ (t=1,.....T) (2)

The model includes lagged values of X and lagged values of Y. In the model, X is not correlated with past, present, or future values of the error term u. In other words, "x" is an exogenous variable and is only related to the individual effect "n".

In static panel data models, the use of lagged values of the dependent variable leads to a correlation between these lagged values and the error term, which can cause serious problems. Therefore, there are differences between dynamic panel models and fixed or random effects models (Bahar and Bozkurt, 2010, p. 261; Yaşar, 2021).

When first-difference equations are applied, the variability between groups can be eliminated from fixed and random effects models. However, in this case, the model is:

$Y_{it}-Y_{(it}-1)=\beta \ (X_{it}-X_{(it}-1))+\delta(Y_{(i,t-1)}-Y_{(i,t-2)})+ (\varepsilon_{it}-\varepsilon_{(it}-_1)$ (3)

takes this form. However, here too, problems arise due to correlation issues between the lagged dependent variables $(Y_{(it-1)}-Y_{(it-2)})$ and $(\varepsilon_{it}-\varepsilon_{(it-1)})$. To resolve these problems, it is recommended to use some instrumental variables that enable the estimation of the dynamic model (Anderson and Hsiao, 1981; Arellano and Bond, 1991, p. 598-604).

At this point, Anderson and Hsiao (1981) suggest using lagged variables with different lag levels, such as $Y_{(it-2)}$ and $Y_{(it-3)}$, which are more lagged values, as instrumental variables instead of $Y_{(it-1)}$. They emphasize that these lagged variables to be used are correlated with the explanatory variables but cannot be correlated with the error term. Dynamic panel data models can be estimated consistently with such instrumental variables, but inefficient estimators can be obtained (Arellano and Bond, 1991, p. 279). These inefficient estimators result from not using all possible instrumental variables. If lagged observations like $Y_{(it-2)}$, $Y_{(it-3)}$, or $Y_{(it-3)}$ are not correlated with $(\varepsilon_{it}-\varepsilon_{(it-1)})$, then these variables considered are valid lagged variables. Therefore, all valid lagged variables should be used as instrumental variables for dynamic panel data models. Thus, GMM estimators, which eliminate differences in unobserved individual effects, use all possible lags of the dependent and independent variables as instrumental variables (Arellano and Bond, 1991, p. 278-283). For this purpose, GMM estimators are used in two stages. One-step estimation (GMM1) assumes that the error terms have constant variance across groups and over time, while two-step estimation (GMM2) considers that the error terms may be heteroskedastic.

There are some modeling tests suggested by Arellano and Bond (1991) to be used along with the GMM technique in dynamic panel data model estimations. The first is the Wald test, used to test the joint significance of the independent variables. The second is the Sargan test, conducted regarding the validity of the instrumental variables used in the GMM estimation (Yaşar, 2021; Bozkurt, 2008, p. 98-99).

GMM-System Technique: A high number of autoregressive parameters or a persistently high ratio of residual error variance to unit effect variance causes the Arellano-Bond estimator to weaken. The method of orthogonal deviations is used to prevent problems arising from the complete loss of some data when first differences are taken. Arellano and Bover (1995) recommend using the System GMM method, one of the dynamic panel data model estimators, and the use of efficient instrumental variables. This aims to prevent the data loss that occurs as a result of taking first differences (Arellano and Bover, 1995, p. 30-31).

Using the past differences of variables as instrumental variables is expressed as the Difference GMM method developed by Arellano and Bond, while using the level variables as instrumental variables instead of difference equations is expressed as the System GMM method (Arellano and Bover, 1995, p. 30).

According to Roodman (2009), there are three basic conditions for the reliability of the System GMM method:

- The condition of no second-order autocorrelation in the model must be met.

- The number of instrumental variables should not exceed the number of observations.

- The lagged value of the dependent variable in the model must be less than one.

Blundell and Bond (1998) compared the System GMM estimation method with other GMM estimators and concluded that the System GMM estimator is a better and more reliable estimator. Blundell et al. (2000), using a Monte-Carlo simulation, found that System GMM estimation gives better estimation results (Blundell and Bond, 2001, p. 2-3). The System GMM estimator not only increases precision but also reduces finite sample bias (Baltagi, 2005, p. 147). System GMM estimators make it possible to include the lagged values of the dependent and independent variables as instrumental variables in the model (Arellano and Bond, 1991, p. 277). Roodman (2009) further developed the Arellano and Bover / Blundell and Bond method used for System GMM estimation. The output obtained from the estimation using this method provides more test results. Furthermore, with the added options, it ensures consistent results are obtained in the presence of both heteroskedasticity and autocorrelation. The characteristics of the lag structure are more flexible than the standard Arellano and Bover / Blundell and Bond method, and the endogeneity of variables can also be modeled. This method can be used in models where N is large and T is small (Roodman, 2009, p. 86).

In the analysis with the System GMM method, efficiency is increased by using more instrumental variables. For the System-GMM method, models are estimated using the "xtabond2" command in the "Stata-17" statistical package program (Yaşar, 2021). The most important advantage of this command is that it allows endogenous and exogenous variables to be included in the model as instrumental variables separately (Roodman, 2009, p. 87).

As in GMM estimation, performing some tests is also recommended for System GMM estimation. For this, firstly the Wald test and secondly the Sargan test are performed. Unlike GMM estimation, in System GMM estimation, the Difference-Sargan test statistic is used for the validity of the additional instrumental variables included in the model. This statistical test is calculated by the difference between two separate Sargan tests calculated with the System GMM and GMM-Dif estimates. Finally, AR(1) and AR(2) tests are performed to test for autocorrelation in the model (Yaşar, 2021; Bozkurt, 2008, p. 99).

Specification Tests in GMM Analysis: There are a number of specification tests recommended to be used along with the GMM technique in the estimation of dynamic panel data models. These tests are the Wald test, which measures the joint significance of the independent variables, and the Sargan and Hansen tests, which are conducted regarding the validity of the instrumental variables used in GMM estimations. Additionally, the presence of autocorrelation in the error terms of the model is examined with AR(1) and AR(2) tests (Labra and Torrecillas, 2018, p. 48).

The Sargan and Hansen test statistics help in testing the exogeneity of the instrumental variables in the analysis. The Sargan test examines the suitability (strict exogeneity) of the instrumental variables used in the analysis. The first stage of the test involves performing a regression analysis using all instrumental variables and obtaining the error terms from this analysis. In the second stage, the obtained error terms are analyzed as the dependent variable of a regression that does not include the instrumental variables. The Sargan statistic is expressed using the R^2 value obtained from the second analysis as follows:

$$SAR = (n-k)\, R^2 \qquad (4)$$

In the text above, "n" represents the number of observations and "k" represents the number of variables in the first-stage regression. With the number of instrumental variables being "s" and the number of endogenous variables being "q", the SAR value follows a chi-square distribution with (s-q) degrees of freedom. The null hypothesis of the test is that all instrumental variables are valid. If this hypothesis is rejected, it is concluded that at least one instrumental variable is inappropriate. The Sargan test is used in one-step estimations and in samples that do not carry excessive risk. If the estimation is done with a homoskedastic weight matrix, as in the one-step case, the Sargan test is sufficient.

The Hansen test, on the other hand, detects over-identification in the

presence of a heteroskedastic matrix (Baum, Schaffer, and Stillman, 2003, p. 3). Therefore, the Hansen test is recommended for detecting over-identification in two-step estimations. The null hypothesis (H0) of the Hansen test is the same as that of the Sargan test; both test for the presence of over-identifying restrictions. H1 = The over-identifying restrictions are valid. The criterion for rejecting or failing to reject the hypothesis is as follows: If the obtained probability value (p-value) is equal to or greater than 0.05, the instruments used in the estimation are valid, and there is no over-identification (prob > chi² ≥ 0.05). If the probability value is less than 0.05, it indicates that the instruments are not valid and that there is over-identification in the model. Therefore, the null hypothesis is rejected (Yaşar, 2021). To prevent the over-identification problem in the model, the number of units or groups must be greater than the number of instruments used. Consequently, when using long panels, it becomes necessary to reduce the number of instruments (Labra and Torrecillas, 2018, p. 40-41).

Following the Sargan and Hansen tests, the validity of subsets of instrumental variables is tested using the Difference-in-Sargan test or the Difference-in-Hansen test. The Difference-in-Sargan and Difference-in-Hansen tests are used to test the null hypothesis that the additional moment conditions required for System GMM are valid. The higher the p-value obtained from these tests, the stronger the validity of the subset of instrumental variables (Heid, Langer, and Larch, 2012). In addition to these tests, the presence of autocorrelation in the error terms of the model is examined using AR(1) and AR(2) tests (Labra and Torrecillas, 2018, p. 40-41).

7. Dataset, Analysis, and Findings

This study examines the impact of significant high-technology determinants on the share of high-technology product exports. For 105 selected countries (those for which data accessibility was possible) between 2010 and 2019, the variables specified in the table below were used. The study was analyzed using the System-GMM estimator for a dynamic panel data model. The dependent variable in the model is high-technology exports as a share of total exports; the independent variables used in the dataset are the education index, foreign direct investment, GDP, trade openness ratio, and total patent applications.

Table 12: Definition of Variables Used in the Model		
Variables	**Definitions**	**Source**
YTI	**High-technology exports (% of manufacturing exports)**	World Bank (TX.VAL.TECH. MF.ZS)
EI	**Education Index**	UNDP
DYY	**Foreign direct investment, net inflows (% of GDP)**	World Bank (BX.KLT.DINV. WD.GD.ZS)
GDP	**GDP (constant 2015 US$)**	World Bank (NY.GDP.MKTP.KD)
TI	**Trade openness ratio (% of GDP)**	World Bank (NE.TRD.GNFS. ZS)
PT	**Total patent applications**	World Bank ([IP.PAT.RESD + IP.PAT.NRES)

The following hypothesis has been formulated regarding the impact of the selected independent variables on high-technology product exports in the study. In the dynamic panel data model constructed with the above data, the lagged value of high-technology exports, which is taken as the dependent variable, is used as an independent variable.

$$LnYTI_{it}=LnYTI_{(it-1)}+ \ \beta_0+\beta_1 \ LnEI_{it}+\beta_2 \ LnDYY_{it}+\beta_3 \ LnGDP_{it}+\beta_4 \ LnTI_{it}+\beta_5 \ LnPT_{it}+\varepsilon_{it} \qquad (5)$$

- $i=1,......,105$ and $t=2010,......2019$
- β_0 : Contant
- $\beta_1, \beta_2, \beta_3, \beta_4, \beta_5$: Coefficients to be estimated
- ε_{it} : Error term
- i : Country
- t : Time.
- **(YTI_it)** represents high-technology exports as a share of total exports.
- **(YTI_(it-1))** represents the one-period lagged value of the dependent variable (high-technology exports).
- **(EI_it)** represents the Education Index.
- **(DYY_it)** represents Foreign Direct Investment.

- **(GDP_it)** represents Gross Domestic Product.
- **(TI_it)** represents the Trade Openness ratio.
- **(PT_it)** represents the total number of Patent Applications.

Tablo 13: Descriptive Statistics.					
Variable	Obs	Mean	St.	Min.	Maks.
lnYTI	1050	1.9002	1.2987	-5.9215	4.183
lnEI	1040	-.3715	.2642	-1.7148	-.0587
lnGDP	1050	25.3559	1.9248	21.9814	30.6255
lnTI	1029	4.3736	.558	2.4728	6.0927
lnPT	821	7.0294	2.5567	1.0986	14.2486
LnDYY	994	1.083	1.161	-6.394	5.635

Table displays the number of observations, median, standard deviation, minimum, and maximum statistics for the dependent and independent variables used in the analysis. Upon examining the descriptive statistics of the variables, it is observed that the difference between the minimum and maximum values is relatively small. However, the standard deviation is found to be high, correlating with the increase in patent applications. Additionally, the difference between the minimum and maximum values for patent applications is quite substantial. Nevertheless, the standard error values are at a desirable level, and these values of the variables are deemed suitable for the parametric tests to be conducted.

Dependent Variable LnYTI	(1) OLS Pooled	(2) Fixed Effect	(3) One Step GMM	(4) Two Step GMM
L.lnYTI	.8035*** (.0553)	.2315** (.1012)	.3083*** (.0492)	.3077*** (.0365)
lnEI	.2082 (.1408)	1.1834 (.874)	.7118*** (.1156)	.7549*** (.2242)
lnDYY	.0205 (.0174)	.0135 (.0171)	.2401*** (.0541)	.1415*** (.0409)
lnGDP	.0114 (0317)	.362 (.3201)	.1216*** (.0272)	.0965** (.0473)
lnTI	.1271** (.0523)	-.0398 (.1936)	.2519*** (.0627)	.3232*** (.0851)
lnPT	.0469** (.0197)	.1405 (.0914)	.0966*** (.0207)	.0845** (.0334)
_cons	-.7341 (.8013)	-82199 (8.5413)	-3.5877*** (.6859)	-2.9718** (1.212)
Obs.	697	697	631	631
Year Dummy	YOK	YOK	VAR	VAR
AR(1)			0.000	0.032
AR(2)			0.269	0.523
Sargan Test			0.485	0.485
Hansen Test				0.263
Wald Test			0.0000	0.0000
Number of Instrumental Variable			50	50

Table 14: Analysis Results

Note 1: ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.
Note 2: The values in parentheses represent the t-statistics based on robust standard errors estimated using the *Windmeijer (2005) finite-sample correction*.

The table presents the results of the analysis applied to the model. To measure the joint significance of the independent variables, the Wald test was used. The Sargan and Hansen tests were conducted to assess the validity of the instrumental variables used for the GMM estimator. Additionally, the presence of autocorrelation in the error terms of the model was examined using AR(1) and AR(2) tests (Labra and Torrecillas, 2018, p. 48).

The Wald test statistic in Table 14 measures whether the model as a whole is significant. The hypotheses established to measure the significance of the Wald test statistic are as follows:

- H0: "The independent variables do not have sufficient explanatory power for the dependent variable."

- H1: "The independent variables have sufficient explanatory power for the dependent variable."

According to the Wald test result, the H0 hypothesis stating that "the independent variables do not have sufficient explanatory power for the dependent variable" is rejected. Therefore, by rejecting the null hypothesis, the models are found to be significant as a whole.

The Sargan and Hansen tests examine the validity of the "instrumental variables". The H1 hypothesis for the Sargan and Hansen tests is "the instrumental variables are valid", i.e., "the over-identifying restrictions are valid". The H1 hypothesis is "the instrumental variables are not valid". According to the Sargan and Hansen test results, since the probability value (p-value) is greater than 0.05, the H0 hypothesis stating that "the instrumental variables are valid" is accepted ($p > 0.05$). Accordingly, it can be interpreted that "the over-identifying restrictions are valid".

The Arellano-Bond AR(1) and AR(2) tests allow for testing the autocorrelation problem in the model. The hypotheses for the AR(1) and AR(2) tests are:

- H0: There is no autocorrelation in the model.

- H1: There is autocorrelation in the model.

In GMM estimators, more accurate results can be achieved when first-order autocorrelation is present but second-order autocorrelation is absent. The absence of second-order autocorrelation is considered sufficient to obtain more accurate results in the model. According to the AR(1) and AR(2) test results in the table, first-order autocorrelation is detected in the model, while second-order autocorrelation is not found.

The analyses began initially with Pooled Ordinary Least Squares (OLS) and Fixed Effects estimations. The Pooled OLS estimator forms the upper bound, and the Fixed Effects estimator forms the lower bound. Thus, the lower bound is 0.231, and the upper bound is 0.803. In the Pooled OLS estimation, the lagged value of the dependent variable (high-technology exports) was significant at the 1% level, while trade openness and patent applications were significant at the 5% level. The Education Index, Foreign

Direct Investment, and GDP were not significant in the Pooled OLS estimation. From this, it can be inferred that trade openness and patent applications affect high-technology exports more than the other variables. In the Fixed Effects estimation, the lagged high-technology exports (the lagged value of the dependent variable) is statistically significant at the 5% level. The other independent variables were statistically insignificant.

According to the panel data analysis results, the lagged value of high-technology exports (L.lnHTE) is significant at the 1% level in the System-GMM model. According to the One-step GMM model, there is a statistically significant relationship at the 1% level between high-technology exports and all other independent variables. According to the Two-step GMM model; there is a statistically significant and positive relationship at the 1% level between high-technology exports and the Education Index, Foreign Direct Investment, and Trade Openness variables. Furthermore, there is a statistically significant and positive relationship at the 5% level between high-technology exports and GDP and Patent Applications.

According to the analysis, the Education Index (lnEI) is significant at the 1% level in both the One-step and Two-step GMM estimations. A 1% increase in the Education Index increases high-technology exports by 0.711% in the One-step GMM model and by 0.754% in the Two-step GMM model. Foreign Direct Investment (lnFDI) has a significant effect on high-technology exports at the 1% level in both the One-step and Two-step GMM models. A 1% increase in the Education Index increases high-technology exports by 0.240% and 0.141% in the One-step and Two-step GMM models, respectively. Gross Domestic Product (lnGDP) was found to be statistically significant at the 1% level in the One-step model and at the 5% level in the Two-step model. A 1% increase in GDP led to an increase of 0.121% for the One-step GMM model and 0.096% for the Two-step GMM model. The Trade Openness variable was insignificant in the Pooled OLS and Fixed Effects estimations but was significant at the 1% level in the One-step GMM and at the 5% level in the Two-step GMM. A 1% increase in the Trade Openness variable led to an increase of 0.251 in the One-step GMM and 0.323 in the Two-step GMM. Finally, the Patent Applications variable was significant at the 5% level in the Pooled OLS model but yielded an insignificant result in the Fixed Effects model. A 1% increase in Patent Applications led to an increase of 0.096 in the One-step GMM and 0.084 in the Two-step GMM.

Conclusions and Recommendations

Technological advancements are a fundamental force for economic

development and growth for countries. However, it is not sufficient for countries to merely produce technology. Therefore, countries must produce high value-added products within their export share. The value-added shares of produced products are distinguished according to their technology levels. This classification, made by the OECD in 2011, separates products into high-technology, medium-high-technology, medium-low-technology, and low-technology. Since high-technology products are high value-added products, they ensure sustainability for countries' development and growth.

The developed and developing countries discussed in the second section were selected for the purpose of comparing certain indicators. It can be said that the share allocated to R&D expenditures is higher in developed countries, resulting in an accompanying increase in patent applications, and the economy grows, making the countries more open to foreign trade. Developing countries, on the other hand, aim for economic development and try to produce technology-intensive products by procuring the necessary inputs from developed countries. When the tables are examined, significant declines are seen in the data for both developed and developing countries in 2020. Based on this, it can be interpreted that the Covid-19 pandemic, declared a pandemic by the World Health Organization, had negative effects in all countries.

In this study, the panel data analysis method was used for 105 selected countries with annual data for the 2010-2019 period. Analyses were completed using Pooled Ordinary Least Squares, Fixed Effects, and the System GMM method. The impact of high-technology product export determinants on total high-technology exports was examined using the one-step and two-step System GMM methods. According to the study results, the lagged value of high-technology exports (L.lnHTE) was found to be significant at the 1% level in the System GMM models. According to the One-step GMM model, there is a statistical significance at the 1% level between high-technology exports and the independent variables. According to the Two-step GMM model, a statistically significant and positive relationship at the 1% level was found between high-technology exports and the Education Index, Foreign Direct Investment, and Trade Openness variables. Furthermore, there is a statistically significant and positive relationship at the 5% level between high-technology exports and GDP and Patent Applications.

According to the analysis, all independent variables determined as high-technology determinants in the System GMM model were significant for high-technology exports. An increase in the number of patent applications in a country means that new technology is being produced and developed,

and the number of new products is increasing numerically. Patents are the transformed state of R&D into production. Therefore, patents have a positive relationship with R&D expenditures and GDP. A high Trade Openness ratio, considered as another variable, positively affects a country's trade volume. The Trade Openness ratio enables a country to source missing inputs for high-technology exports from other countries. Therefore, countries should increase their trade openness ratio in foreign trade competition. Another high-technology determinant used in the study is Foreign Direct Investment. Due to capital inadequacy, countries' need for foreign direct investments increases in production, exports, and productivity growth. For these determinants affecting high-technology exports, countries allocating more resources is crucial for the sustainability of economic growth.

In light of the literature reviewed in the thesis, the findings align with the results of Kabaklarlı (2018), Erdinç and Aydınbaş (2020), Gökmen and Turen (2013), Kızılkaya et al. (2017), Mehrara et al. (2017), and Akay (2021), who found that foreign direct investment, patent applications, GDP, and trade openness have a positive effect on high-technology exports. In the study by Baesu et al. (2015), the effect of patent applications on high-technology exports was positive, while the effect of R&D expenditures per capita was found to be negative. This result is also consistent with the analysis findings of this thesis.

In the literature, the determinants of high-technology product exports have been investigated with different analytical studies. However, no study was found that applied the System GMM method using multiple variables, countries, and years with a broader sample set. When previous studies are examined, it is seen that one or a few of the high-technology determinants were addressed and their relationship with high-technology product exports was investigated. In this study, high-technology determinants are addressed in a more holistic manner. The effect of the high-technology determinants used in the thesis on high-technology product exports is interpreted using the System GMM method, which is one of the dynamic model estimators. In future studies, using more current data and more variables, the impact strength of high-technology determinants in each developed and developing country could be tested with a different analysis method. Another suggestion could be to examine the effect of foreign direct investment determinants on high-technology exports.

Based on the analysis results, countries should support all kinds of initiatives that positively affect high technology. They should increase the share allocated to R&D expenditures to obtain more output. By giving

more importance to education and science, they should positively influence the scientific publications of the young population. More incentives should be provided for young entrepreneurs, and policies to increase the number of patents should be developed. Special institutions should be established to discover new talents, and innovation-focused training should be provided there. Education should not remain only theoretical; at the same time, schools equipped with technology should be opened, allowing for original work and project preparation. Thus, young people developing themselves in these places will be able to increase the rate of qualified labor force by working in factories or institutions possessing smart systems and devices.

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Chapter 5

Reflections of Cultural Dynamics on International Trade: A Qualitative Analysis Approach ⊙

Merve Esra Gülcemal[1]

Abstract

Culture is a structure that is not innate but acquired later by individuals, shaped through social environment, traditions and customs, religious beliefs, and value judgments. It can be defined as the set of beliefs and norms adopted by societies in order to make sense of, organize, and guide their individual and collective lives. There are many different cultures around the world. With the effect of globalization, interaction between different cultures is increasing, and production and trade activities are gaining a cross-border nature. Today, a product is designed in one country, manufactured in various regions, and reaches consumers in many markets. This situation offers firms access to an expanding market on an international scale. In this context, the interaction between culture and international trade is becoming increasingly important. One of the widely accepted views in the literature is that cultural similarities facilitate foreign trade; as countries with a common cultural background encounter fewer problems in communication and business processes. However, it is also argued that such similarities may lead to trade being limited to certain regions. On the other hand, when managed with appropriate strategies, cultural differences can create significant opportunities for firms and contribute to their success in international markets. This study aims to reveal the strategic importance of cultural characteristics in the context of international trade and to contribute to the literature in this field.

1. Introduction

In a globalizing world, international trade has gained momentum and

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1   Dr. Lecturer, Istanbul Gedik University, Gedik Vocational School, Human Resource Management Programme, İstanbul, Türkiye, merve.gulcemal@gedik.edu.tr ORCID: 0000-0002-6243-2023

made continuous progress. While progressing, it has been influenced by both economic and external factors. Culture is one of the most important and decisive external factors. People want to maintain consumption habits that are consistent with their lifestyles and customs. They tend to always give priority to countries that offer products and services with attention to this issue. Although product price and quality are decisive factors in commercial terms, price and quality alone are not sufficient in cultural terms. Globally, countries expect their business partners to share similar values with them. If this is not possible, they at least expect them to be sensitive to their customs and traditions and to show respect for their values. Conducting business by understanding each other and showing respect for each other's values is an important cultural factor. Even seemingly insignificant details can increase fragility between countries and damage commercial relations. In this context, it is extremely important for countries wishing to operate globally to be knowledgeable about different cultures.

In this context, the main objective of this study is to provide general information about various cultures to companies wishing to export their products or services to a different country for the first time. To this end, an attempt has been made to provide general information about the cultural structures of countries from different regions of the world that are considered to have different cultures. The countries covered in the study were selected randomly, and countries for which detailed information could be collected were included in the scope of the study. Information on topics such as punctuality, business meetings, business dinners, and gift-giving cultures in the selected countries was compiled and summarized by examining various written sources. The study was prepared according to qualitative analysis principles and was prepared in accordance with the document/text analysis technique, which is a type of qualitative analysis.

2. The Concept of Culture

There are various definitions of the concept of culture. According to Boyd and Richardson, culture is a set of values that influence knowledge, attitudes, and behaviors passed down from generation to generation through learning or imitation (1985, p. 2). Guiso et al. (2006, p. 23) define culture as a set of ethnic and religious traditional beliefs and values that can be passed down unchanged from generation to generation. Culture is the identity of societies (Arslan et al., 2017, p. 670). It is expressed as a whole set of material and spiritual values, such as knowledge, art, ethics, law, beliefs, customs, and traditions, which include the skills and habits acquired by individuals who are members of a society (Çetin, 2016, p. 73). Culture is an abstract concept

that influences the behavior of individuals (McCort and Malhotra, 1993, p. 92). Based on all these statements, culture refers to the sum of the religion, language, beliefs, behavior, aesthetic, and moral values learned by individuals belonging to a society (Özcan, 2000, p. 24). In other words, it is the set of norms that regulate individuals' behavior so that they can live in harmony within the community (Saydan and Kanıbir, 2007, p. 74-89).

There are five basic elements that constitute culture. These elements can be listed as values, norms, beliefs, symbols, and language. Values are thoughts and principles that contain norms but are more general than norms, serving as a control mechanism that provides criteria for distinguishing between good and bad or beautiful and ugly. Norms are written or verbal rules that regulate customary and ideal patterns of behavior within society and impose sanctions on individuals who fail to comply. Beliefs are truths, facts, and ideals shared by people, which may be based on common sense, religion, or science. Symbols are the meanings that individuals attach to the objects they perceive in the outside world. Language is an important tool in learning and transmitting culture and is the whole system of symbols and rules that contributes to individuals interacting with each other (Yaylacı, 2014, p. 35).

2.1. Characteristics of Culture

Culture, which varies from country to country and society to society, is a phenomenon with a broad scope that encompasses various elements in terms of its characteristics. In this context, the characteristics of culture can be summarized as follows (Özalp, 2009, p. 87-88):

- **Learned:** Culture is not an innate characteristic. Individuals first learn the cultural values of their society within their families. The acquisition of culture continues later in school and work life. Individuals become carriers of a particular culture by communicating with other individuals.

- **Social:** Culture does not belong to a single individual, but to every member of a society. It is created by the members of society and used collectively. Personal values do not reflect the cultural characteristics of society.

- **Changeable:** Culture can change according to time and the needs of individuals. The rate of change varies according to the level of modernity of the society. While change occurs slowly in a small society where acceptance takes a long time, changes are quickly accepted in developed or developing societies.

- **Need-Satisfying and Fulfilling:** Culture is a structure that regulates behavior to enable individuals to live in harmony, thus meeting their biological and psychological needs. Cultural elements must provide satisfaction to society members in order to maintain their existence.

- **Adaptable:** Culture is a phenomenon that can be changed or adapted according to the will of individuals.

- **Transmitted from Generation to Generation:** Culture, which forms a bond between generations, is an ever-growing accumulation.

- **Restrictive:** Culture restricts the behavior of a society by placing it within a specific mold. When members of a society interact with individuals from other societies, they feel compelled to preserve their cultural values and behave in accordance with the restrictions imposed by their culture.

- **Symbolic:** Culture is the symbolization of a phenomenon by assigning meanings to it. The values possessed by societies can be demonstrated to other societies with which they interact through symbols.

- **Composed of Interrelated Elements:** Culture is a structure composed of various interrelated elements. Any change in one element affects the others because they are interrelated.

3. Trade Culture in International Trade

Global economies are increasing the number of companies operating internationally every day. The cultural differences between international companies and the foreign companies they work with directly affect many business-related issues (Mutlu, 1999, p. 270). In global trade, it is necessary to behave according to the traditions of the host country and observe local customs (Gesteland, 2005, p. 15). Market failures due to socio-cultural reasons are likely to occur in trade negotiations. The mutual lack of understanding of cultures by international companies is a hidden factor that leads to failure (Öğüt and Kocabacak, 2008, p. 148). The greater the cultural differences with host countries, the greater the problems that will arise in global markets (Tung, 1998, p. 23-27). Therefore, it is inevitable for international companies to learn about cultures different from their own and develop strategies accordingly (Ehtiyar, 2003, p. 67).

International businesses that prioritize only their own culture and disregard other cultures will fail in global markets (Mutlu, 1999, p. 270). In this case, the cultural environment of the target audience in global markets

must first be determined, and it should not be forgotten that the customer who forms this environment has significant effects on various networks such as economic units that manage the buying and selling processes, advertising and media tools, and companies that conduct marketing research (Gegez et al., 2003, p. 87). Companies that learn about different cultures and implement strategies according to these cultures increase their competitive power and, consequently, their business success (Sheer & Chen, 2003, p. 52).

4. Research Method

In order to provide information on what companies exporting goods or services for the first time or wishing to work with a new country should pay attention to during business meetings, document/text analysis, one of the qualitative research methods, was used in this study. To this end, countries where all information on greetings, punctuality, gift-giving, business dinners, and meetings could be accessed were included in the scope of the study. The cultural characteristics of these selected countries and the importance of these characteristics in terms of trade were investigated, and the information collected through qualitative analysis was summarized.

4.1. Qualitative Analysis

Qualitative research is one of the methods developed to produce knowledge with the aim of understanding an individual's own potential, analyzing their inner world, and examining the depth of social structures. This method involves a deep effort to gather information about the subject being studied. It is based on collecting data from as many sources as possible and reinterpreting it from the researcher's perspective. Qualitative research also examines the problem it addresses within its own context, focusing on the meanings researchers assign to it, using an interpretive approach. During the qualitative research process, the researcher's mental processes of discovery are activated. Since this approach is researcher-focused, it is largely subjective and highly susceptible to the researcher's personal assessments.

Researchers working with this method are obliged to preserve the subject without straying from its originality and without detaching it from its real context. While elaborating on the subject according to their own views, researchers should analyze, interpret, and make sense of the subject's own realities (Özdemir, 2010).

There are three types of qualitative research: observation, interview, and document/text analysis. Since the document/text analysis method was used in this study, only document analysis will be discussed under this heading.

4.1.1. Document/Text Analysis

Scanning written documents containing information about the phenomena or events under investigation in detail and forming a meaningful whole from this data is called document or text analysis. This method, which also includes literature review, allows the researcher to systematize their observations and interview records as well as other documents. Document analysis allows the researcher to save time and resources, and facilitates the classification of the phenomena and events under investigation according to their order of importance, the organization of data sources, and the creation of new data sets (Baltacı, 2019).

5. Findings

This section of the study summarizes the characteristics of the trade cultures of the countries selected to represent Asia, Europe, North America, the Middle East, and North Africa. The countries included in the study are listed in Table 1. The cultural characteristics of the countries listed in Table 1 are explained in the order presented in the table.

Table 1. Countries Included in the Study			
European Countries	**Asian Countries**	**North American Countries**	**Middle Eastern and North African Countries**
Germany	China	The United States	Iran
Italy	India		Egypt
Russia	Japan		Türkiye
Spain	Kazakhstan		
France			
England			

Source: Prepared by the author.

Germany

Germany, which stands out in world trade for its business discipline, looks at the reliability and profitability of a country's laws before doing business there (Cioffi, 2002, p. 355). According to their adopted business model, they prefer to first develop their own technologies in their own countries, then open up to foreign markets and increase their market share (Bond et al., 2003, p.153).

Germans are very punctual and expect the other party to be sensitive about this. They prefer to conduct business meetings during business hours. Business meetings and correspondence are conducted in English (Evason, 2017). They always want business meetings to be held at their own offices first. They mostly want their own business models to be valid. They attach importance to written contracts. Continuing discussions on the subject of the contract after it has been signed is a sign of mistrust for them (Bruttel & Sol, 2006, p. 69-89).

Germans keep their private and professional lives separate. They place great importance on hierarchy. The most senior person enters the meeting room first. Company titles are not taken into account. The terms "Herr" or "Madam" are used. However, academic titles must be used if applicable.

Business cards are important to Germans. Educational information and, if applicable, the person's achievements should be added to the business card. If Germans nod in greeting, you must nod back; nodding without them nodding first is not well received.

Germans are generally reserved people. They are also very organized and methodical. They dislike sudden changes in business matters (even if they are positive developments). They are rule-oriented and place importance on adhering to rules and ensuring others do the same. They want every task to proceed according to plan and schedule (Evason, 2017).

If you are having a meal with Germans, you should not arrive before the invitation time; you should arrive right at the meal time. You should not sit down until you are shown to your seat. You must send a polite message the next day.

Gift-giving is not welcome in German business culture, and they make this clear through their actions. Germans should never be given gifts without giving one in return. Giving expensive gifts can lead to misunderstandings. Bringing chocolate or flowers is considered a sign of courtesy. However, carnations and chrysanthemums should not be chosen as they represent mourning. Red flowers are also frowned upon. As the number 13 is considered unlucky for Germans, the number or content of gifts should not be related to the number 13 (Minvielle, 2023).

Italy

Italy, with its Mediterranean character, is a country where business negotiations are easiest to conduct. Italians place more importance on packaging and presentation than on the contents of a product. To them,

anything that looks beautiful and appeals to the eye is of high quality.

Italians, who have a humorous personality, can be loud during meetings. They are also very prone to interrupting the other party (Kenna & Lacy, 1995, p. 15). They generally prefer to conduct initial business meetings in the office. When meeting people during interviews, the terms "Signore" or "Signora" must be used before their names. They attach great importance to titles. Italians place great importance on maintaining eye contact throughout the interview. Avoiding eye contact means you are bored, in their view. An appointment must be made before the interview, and care should be taken not to be late for the meeting. Meetings must be in writing. They do not prefer to talk business immediately at meetings; they prioritize getting to know you first (Gesteland, 2005, p. 211).

Italians place great importance on hierarchy. They respect power and age. Italians love compliments. They are also tactile and dislike distance. Italians are not punctual and may be late for meetings. However, the concept of "being on time" is extremely important in Italian business culture. According to this concept, the other party must always be prepared (Evason, 2017). They do not speak English very well. Therefore, an interpreter is needed. Business cards are widely used in Italy. One side of the business card should be in English, and the other side in Italian. People's titles and educational information must be included on the business card (İtkib, 2008, p. 10).

Italians prefer to exchange gifts only on very special occasions. They do not consider it appropriate for the other party to give a gift without them giving one first. Gifts should be from prestigious brands but should not be too expensive. They should not be small gifts either. Gifts should be opened immediately upon receipt. Gifts should definitely not feature a company logo. Black and gold packaging should not be chosen as it symbolizes mourning, and purple packaging should be avoided as it symbolizes bad luck. If flowers are to be given, red and yellow flowers and chrysanthemums should be avoided (Melemen, 2012, p. 246).

In Italy, business dinners are only for special people and are few in number. Meals are usually served very late. You should not leave the table for any reason, even to use the restroom. You should not make phone calls at the table. These situations are frowned upon by Italians (Evason, 2017).

Russia

Russian business culture requires a sense of belonging to a group and behaving appropriately within that group. Establishing long-term and reliable relationships is essential for the successful outcome of a business deal.

Patience is extremely important when dealing with Russians. They prefer not to do business with people they do not trust (Katz, 2006). Although business meetings are conducted face-to-face, intensive phone calls should also be made (Gesteland, 2005, p. 187). Maintaining contact with the person they are talking to during a conversation shows that they trust them.

Russians are not solution-oriented. Because they are problem-oriented, they discuss a problem without producing any solutions. They are not punctual. However, they expect the other party to arrive at meetings on time, while they themselves may arrive 1-2 hours late. Current and social topics must be discussed before starting a business meeting. Contracts made with Russians should be short and concise and prepared in both English and Russian. Russians may frequently make changes to contracts. However, they do not like to reopen a topic that has already been agreed upon. They often resort to deceptive techniques to gain a marketing advantage, may play dumb, and may mislead the other party. It is very difficult to get them to compromise. They do not like to take risks. They pay close attention to price in export negotiations. Business cards are extremely important for Russians. They should be prepared with one side in English and one side in Russian, and the person's professional titles must be included. Russians have three names: first name, last name, and their father's surname. These three names must be learned. Russians love exchanging gifts. Since they spend a lot of money on gifts, you should bring expensive gifts to Russians. If you are giving flowers, yellow, white, and red flowers should definitely not be chosen (Melemen, 2012, p. 135-137).

Spain

Individualism dominates Spanish business culture. Group decision-making is very rare. Because they place great importance on hierarchy, people of equal status should work together. They generally display a modest attitude and do not like people who appear overly confident (Dreamer, 2021). They are not punctual, but they expect visitors to be punctual. In business meetings, one should not jump straight into the topic but try to get acquainted first. Topics are discussed in detail during meetings, and bargaining is extremely important (Gesteland, 2005, p. 216). They prefer meetings to be conducted in Spanish. Titles are extremely important to them.

Gifts should only be exchanged if the meeting is successful. Care should be taken to ensure that the gift is of good quality, well-packaged, and not excessively expensive. Gifts related to the number 13 and chrysanthemums should definitely be avoided (Çekinmez, 2006, p. 9).

France

In France, where economic classes hold significant importance, values are always prioritized. The French consistently take pride in their culture, history, language, and arts. They are uncompromising in highlighting their unique values in fields such as art, entertainment, and commerce. As they dislike silence during conversations, researching French history and culture beforehand and using this knowledge during discussions can be advantageous (Köse & Ünal, 2003, p. 35). In commercial agreements, they seek to obtain as much information as possible about the other party before making any decisions (Hampden-Turner & Trompenaars, 1995, p. 305–309).

The French generally display a formal and distant attitude toward people they meet for the first time. However, despite this formality, they prefer to stand in close proximity while speaking. In business meetings, handshakes are the preferred form of greeting. Unlike in other countries, smiling holds no particular significance in France. Eye contact is extremely important for the French. As hierarchy is highly valued, the titles of the individuals to be met must be known in advance. Unless requested otherwise, addressing the French by their first names should be avoided, and the use of titles such as "monsieur" or "madame" is essential. In French culture, attempting to meet without an appointment is considered impolite, both in daily life and in business settings. It is crucial to adhere strictly to the scheduled time (Melemen, 2012, p. 271–272). During meetings, the French expect exporters to speak French, and poor use of the language is not well received. Furthermore, they do not hesitate to correct grammatical errors during conversation. This should be taken with tolerance and not perceived as rudeness. Logic forms the foundation of France's business culture. The French do not hesitate to criticize ideas they find illogical (Gesteland, 2005, p. 203).

In French business culture, making changes and taking risks is not welcomed. When they encounter failure in a business matter, they prefer to find a new course of action through rules and regulations. Written communication is extremely important to them. Phone calls and face-to-face meetings are not considered significant or actionable unless they are documented in writing (Université Paris Cité, n.d.).

The French generally prefer to schedule business meals around lunchtime. They do not like discussing business during meals. Due to their respect for hierarchy, the most important person sits at the head of the table. The next in rank sits to their left, and the second most important person sits to their right. Upon entering and leaving, each person at the

table must be individually greeted; failure to do so is considered rude. At home invitations, no food should be left on the plate (Scroope, 2017). For business meals, punctuality is essential, whereas for home invitations, arriving 15-20 minutes late is appropriate (Université Paris Cité, n.d.). At home invitations, serving orange juice after coffee signals to the guest that it is time to leave. Gift-giving holds moderate importance in French culture and should be done at an appropriate time. Suitable gifts include flowers, quality chocolates, fine wine, or liqueur. If flowers are given, carnations symbolize ill will, and chrysanthemums are associated with funerals, so these two types should be avoided. Gifts are generally considered appropriate to present before the meeting begins at invitations. Gifts should be opened upon receipt (Melemen, 2012, p. 275).

England

Known in international trade as the "Empire on which the sun never sets," England shares similar characteristics with America in terms of power and avoiding uncertainty. The British focus on long-term business relationships rather than short-term ones.

They have a cold and detached demeanor and dislike physical contact. Conservatism and personal space are important. Care should be taken to leave space between people when sitting and to avoid physical contact. You should also avoid asking personal questions (Catterall, 2025). During conversation, you should maintain a distance of at least an arm's length. Shaking hands is appropriate when meeting for business, but when shaking hands with women, you should wait for the woman to extend her hand first (Gesteland, 2005, p. 234).

To meet with British people, an appointment should be made at least two weeks in advance. During meetings, one should be logical and sensible, make eye contact, and introduce oneself by first and last name. The British like to discuss current affairs before meetings. Therefore, it would be useful to review the agenda there before visiting the UK. Also, the British do not feel like members of the European Union. Sensitivity should be shown on this issue during discussions. The British use body language with great skill and reveal very little of what they are thinking to the other party. It is quite difficult to understand what they are thinking from their facial expressions . They prefer a conservative dress style at meetings. Therefore, a dress style that is not too flashy should be preferred. Also, since they prefer to wear striped ties only in schools and military places, striped ties should definitely not be worn during meetings (Evason, 2016).

Humor is part of British business culture. They like to use humor in meetings and business discussions. They prefer to use humor to soften a tense atmosphere (Warburton, n.d.).

Business cards are an important component of business meetings, and you should always bring enough business cards with you. They are punctual. You should always make sure to arrive on time for meetings. Gift-giving is not very common in British business culture. However, flowers can be brought to invitations. You should avoid bringing chrysanthemums, white lilies, and red roses. The British prefer to eat food that is appropriate for their geographical location. At business dinners, care should be taken to use the fork in the left hand and the knife in the right hand (Melemen, 2012, p. 246).

China

It is impossible not to be influenced by China in global trade and not to engage in economic activities. Due to this characteristic, China is a country that maintains its importance in world trade and requires attention to traditional trading styles.

The Chinese attach great importance to their history. They like to ask guests about current or historical topics related to their country to learn their opinions. In this case, China and Chinese leaders should definitely not be criticized, and political discussions should be avoided at all costs (Jensen, 2000, p. 164). Care should be taken to give short and accurate answers (Bjerke, 2001, p. 106). Chinese people prefer to bow and shake hands simultaneously when greeting someone. Introductions should be made from the most senior to the least senior.

They are punctual. Making appointments in advance and arriving on time is very important to them (Köse and Ünal, 2003, p. 37). Chinese slides and colorful brochures are considered appealing during meetings. Entry into the meeting room and seating at the table are based on seniority, with the most senior person entering the room first (Melemen, 2012, p. 246). At the beginning of the meeting, the Chinese wait for their counterparts to place their offer on the table and then make an offer of their own, without making eye contact. Reflecting the understanding of "kill, but with a borrowed knife," this situation is ingrained in Chinese culture and is one of the most frequently used tactics of the Chinese (Fang, 2000, p. 204). The Chinese are very patient. They may prolong negotiations to wear down the other side (Li et al., 2001, p. 115). They tend to return to a topic they have discussed and explain it repeatedly, so it is necessary to listen patiently each time. The

Chinese do not go to a country to buy goods; the seller must bring the goods to them. Even if the purchase does not go through, any questions or emails from China should not be left unanswered; a positive or negative response should be given (Çiçek and Koyuncu, 2007, p. 45-64). Due to their culture, Chinese people use indirect language because they cannot say "no" directly (Sheer and Chen, 2003, p.52). Consensus is very important in China. No decision is made without consensus (Bjerke, 2001, p. 104). Bargaining is a very important concept for the Chinese. They consider a deal made without bargaining to be incomplete (Chinese Culture Center, 2004, p. 22).

In China, the surname comes before the given name. Full titles should be used when meeting someone for the first time and when addressing a Chinese person. For the Chinese, smiling is a sign of irritability. They prefer to smile when faced with an unpleasant situation (Li et al., 2001, p. 132-137). Pointing at someone with the index finger or waving the index finger is perceived as aggressive and rude (Jensen, 2000, p. 165).

Business cards are very important to Chinese people. One side of the card should be in Chinese. Cards should be presented and received with both hands, with the Chinese side facing up. When receiving a business card, it should be examined for a while, not immediately put in a pocket, and kept on the table during the meeting. In Chinese culture, gold represents prestige and wealth, so business cards printed with gold ink will create a positive impression (Plafker, 2007, p. 85-86).

In Chinese culture, it is very important not to be late for a meal. They usually prefer to arrive 15 minutes early. All guests should arrive together and on time. One should not sit down without being shown a seat. One should not talk during the meal, and chopsticks should be used for eating (Köse and Ünal, 2003, p. 38-41). Giving a tip implies that the person did not do their job well and is considered insulting. Therefore, tips should never be given (Li et al., 2001, p. 142).

In China, gift-giving is seen as a sign of respect and courtesy. The size of the gift is not important. A visitor who arrives without a gift is considered disrespectful. The number 4 and the word "hour" are associated with death, so gifts should not contain anything related to these. The number 8 represents abundance and prosperity, so a gift associated with this number is positively received. Gifts should be given according to hierarchy. Blue, black, and white colors should not be preferred as they are associated with death and funerals; yellow, red, and pink colors should be preferred instead (Quanyu et al., 1994, p. 215-216).

India

India, one of the oldest civilizations in world history, is a country with great diversity in religion and language due to the CAST system and British colonialism. When greeting someone, you should place your hands together in front of your head, palms touching, and bow your head. Greetings can also be in the form of a handshake, but women should never shake hands without extending their hand first. Indians are not punctual. Their plans can change even at the last minute. Therefore, it is necessary to confirm appointments a few days in advance (Scroope, 2018).

For Indians, "word" is essential. Therefore, they prefer not to make written agreements. However, if companies are going to work with Indians, they must make a written contract and work with a letter of credit, which is a guaranteed form of payment (Scroope, 2018).

Indians place great importance on titles. They may continue to use titles in everyday life. There is no specific seating arrangement at meeting tables. However, they place importance on older, more senior, and more experienced individuals speaking first. All topics discussed are generally decided at the meeting table (Kumar and Sethi, 2005, p. 133).

Indians prefer to flavor their food with various spices such as saffron, curry, black cumin, mustard, cinnamon, and ginger. Those who follow Buddhism do not eat meat, while those who follow Hinduism can eat meat other than beef (Melemen, 2012, p. 167).

Gift-giving is not very important in India. However, a person invited to a meal may bring a gift that is not very expensive and is not available in India. However, since the Hindu religion is embraced, products derived from beef and leather products should not be brought (Çekinmez, 2006, p. 9).

Japan

In Japanese culture, where harmony, loyalty, and national consciousness are at their highest, people are very inclined to work together and in harmony. The Japanese prefer to resolve all disputes they encounter through compromise. Waste is a very important concept in Japanese culture, and using everything without waste forms the basis of this culture. This concept is seen as the starting point for the concepts of zero defects, just-in-time production, and lean organization in industry. Japanese people, who view written contracts as a formality and a sign of distrust, generally place importance on their word. Even if they do sign contracts, these contracts are not very detailed (Melemen, 2012, p. 246).

When greeting each other, the Japanese prefer to bow rather than shake hands. Those with higher seniority bow less, while those with lower seniority bow more. People are introduced by their surname and title in order of age (Scroope, 2021). At meetings, the most senior people sit at the center of the table. They are followed by their assistants and seniors in order of title. It is expected that people of equal rank will sit opposite each other.

Business cards are extremely important in Japanese culture. The most senior individuals present their business cards first. Business cards should be presented with both hands, examined in detail when received, nothing should be written on the card, titles must be included, and one side of the card must be in Japanese. Cards should not be immediately put in a pocket but kept on the table throughout the meeting (Jetro, 2000, p. 7).

The Japanese consider using the word "no" to be rude, so instead of saying "no," they prefer to say "we will consider it." They use the word "yes" not only to approve or accept something, but also to indicate that they understand what has been said. Therefore, every "yes" should not be interpreted as approval or acceptance (Güvenç, 1989, p. 134).

For the Japanese, product quality and standards come first. Price is secondary. They consider anything that has been discounted to be of poor quality. Once the price is lowered, it is very difficult to raise it again. In addition, they attach great importance to packaging and presentation (Enginkaya, 2005, p. 99-108).

Fish is fundamental to Japanese food culture. They generally prefer to eat fish. Green tea must always be present at the table. In Japanese culture, tipping restaurant staff makes them feel belittled. Therefore, tips should never be given.

Gift-giving is extremely important in Japanese culture. Gifts should be purchased from the region or area where they live, given after the meeting, and should never be opened in front of the recipient when received. As the number 4 is associated with death, gifts should not bear any reference to this number. Great care should be taken to ensure the gift is well wrapped.

Kazakhstan

Handshakes are common in business meetings. Eye contact should also be made. Some Kazakh men may not want to shake hands with women. If several meetings are scheduled on the same day, a handshake is required each time. A handshake is also required when leaving the meeting. People are addressed by their first names and titles (Commisceo Global, n.d.).

Business cards are an important element. One side should be in English and the other in Russian. There is no specific way to give a business card, but it should not be immediately put in your pocket; you should glance at it.

Hierarchy is important in Kazakhstan. At meetings, people of the same level usually sit opposite each other at T-shaped tables. Business should not be discussed immediately at the meeting; current topics should be discussed, and the other party should be allowed to bring up the business topic. Giving small gifts at the end of the meeting is appreciated.

In Kazakhstan, a written contract should not be expected for every decision. If a solid and honest business relationship is established, a handshake often signifies an agreement (Melemen, 2012, p. 198-199).

The United States of America (USA)

Comprising fifty states and one federal district, the United States is home to people from many different ethnicities and races, making it difficult to speak of a single trade and food culture. However, American culture can be summarized with the words change, flexibility, diversity, and individualism. Americans, who appear hardworking and entrepreneurial, have a dynamic and assertive spirit. Because they like to boast about their past successes, this is often perceived as arrogance and pride. For them, past achievements are more important and worthy of respect than age or experience (Evason, 2021).

Greetings involve a handshake. A light handshake is seen as a sign of distrust. When meeting someone in a position of authority, they should extend their hand first. They dislike physical contact. Hand jokes should be avoided. Sitting close to them in business meetings makes them uncomfortable. Meetings proceed at a fast pace. Remaining silent during a meeting is frowned upon. They do not hesitate to say "No" if they have a negative opinion about business. Being solution-oriented, they believe that every problem has a solution. Business ethics are extremely important to them (Evason, 2016). They do not beat around the bush in meetings; they get straight to the point. For them, a lack of eye contact causes trust issues. They generally prefer to do business with overly corporate and reliable companies (Business Culture, 2025). Because they have a competitive and aggressive character, they use threats and warnings as a persuasion tactic on issues they disagree with (Sonuşen, 1997, p. 22-23).

Jokes are commonly used in American culture, but when tensions are high, jokes should not be used to try to lighten the mood. Personal questions should never be asked during business meetings. They are punctual. For

them, time is as valuable as money in the bank. Punctuality is one of the most important components of this culture. When evaluating the other party, they look at their attitude towards time and how they use it. Business breakfasts are common. They believe that the host must pay for the business meal. They are not concerned about discussing business at invitations. Business meals should be attended on time. They consider arriving before the meal time to be rude. Gift-giving is not very common. They accept gifts from the other party but may not give gifts to the other party themselves. Gifts should be given when the business meeting is over (Melemen, 2012, p. 229-230).

Iran

Greetings are exchanged with a handshake. However, if there is a female employee on the other side, you should not extend your hand unless she extends hers first. If she does not extend her hand, it is preferable to greet her with a nod (Mirabi, 2025). Political topics should never be discussed during business meetings (World Travel Guide, 2012). Negative comments should not be made about Islam , state policies, or Iran's international relations (Evason, 2016).

They are not punctual, but they expect the other party to be punctual. Business should not be discussed directly during meetings; the other party should be allowed to bring up the subject. If wearing a jacket, permission must be asked before removing it. As Muslims, they do not work on Fridays (Melemen, 2012, p. 246).

Business dinners are very common. Iranians generally prefer to discuss work-related topics at business dinners. The bill is not split between the parties; the host pays (Neil, n.d.). Business cards are important and should be prepared in Farsi. Business cards are exchanged by middle and senior managers. Gift-giving is not very common in Iranian culture. Expensive gifts should be avoided as they may be perceived as wasteful (Evason, 2016). Gifts should be well-wrapped (Izraeli, 2004, p. 1-2).

Egypt

Egypt, which plays an important commercial role due to its geographical location, is a modern Islamic country. As it is a Muslim country, Friday is considered a holy day. Therefore, they do not work on Fridays. In fact, a large part of the population does not work on Thursdays either. Egyptians are not punctual. However, they expect the other party to arrive on time (Akgür and Roca, 1997, p. 97).

Egyptians enjoy contact and joking around. Upon first meeting, the other

party is greeted with a handshake. However, it is not preferred for women to shake hands with men. In the Arab world, the left hand is considered unclean, so the right hand is generally used for handshakes. To do business in Egypt, it is essential to have an intermediary from that country. This allows them to trust and do long-term business. Hierarchy is extremely important, and decisions are made in accordance with hierarchy. Business cards are widely used in Egypt. One side of the card must be in Arabic. When receiving a business card, it should definitely not be put in your pocket without looking at it first. Titles are very important to Egyptians. When addressing an Egyptian, the title is said first, followed by the surname (Scroope, 2017).

When going to a meeting in Egypt, you should not wear the local clothing. This is considered rude by Egyptians. Men should wear dark-colored clothing, and women should dress modestly.

Gift-giving is an important custom for Egyptians. Gifts should be given with the right hand. Flowers should not be brought to business meetings as they are only accepted in situations such as weddings and illnesses. High-quality chocolates or sweets are preferred as gifts. Only the right hand should be used when eating in Egypt. Adding salt to food should be avoided, as Egyptians interpret this as meaning that the food is tasteless or not liked (Scroope, 2017).

Türkiye

Turkish culture, where East meets West and ancient traditions blend with modern life, bears the traces of various cultural influences. Generosity, warmth, and hospitality are always at the forefront of Turkish culture, which is a blend of various cultures. Because Turks are warm-hearted, smiling is a form of greeting. Therefore, smiling and shaking hands are preferred when greeting someone for the first time (Homer, 2024).

Turks are extremely attached to their traditions and customs and are sensitive about being respected. Respect for Islam and the country's founder, Mustafa Kemal Atatürk, is particularly important. Criticizing Islam, Atatürk, or the Turkish flag during meetings is considered offensive (Number One Property, 2024). Respecting elders is also very important in Turkish culture. When an elder enters the room during a meeting, you should stand up and offer them your seat (Magnificent Travel, n.d).

Turks value punctuality. You are expected to arrive on time for meetings. However, they may be late for certain reasons (Evason, 2019). Since jumping straight into the topic in business meetings is considered rude,

some small talk should be made at the beginning (The Istanbul Insider, 2025). Maintaining eye contact during conversation is considered a sign of attention and respect (Magnificent Travel, n.d.). Turkish coffee and tea are usually served during meetings. Visual communication is as important as verbal communication in meetings. Therefore, presenting business-related information in graphic form can create a positive impact. Turks enjoy bargaining. Therefore, initial prices are usually not valid (Evason, 2019).

In Turkish culture, business cards are used when a deal is finalized and a business relationship is to be established (Evason, 2019). Business cards should be exchanged with both hands, and should not be immediately put in your pocket after receiving them, but should be examined for a while (Number One Property, 2024).

Turks like to touch within certain boundaries. Touching the shoulder while talking to business partners is a sign of trust (The Istanbul Insider, 2025).

In business meals, declining invitations is considered rude. Invitations must be attended punctually, and if there will be a delay, prior notification is essential. Finishing the plate is regarded as a sign of courtesy, so no food should be left on the plate (Magnificent Travel, n.d.). In Turkish culture, the left hand is considered unclean in traditional and local settings; therefore, eating with the right hand is preferred (Number One Property, 2024).

Gift-giving is significance in Turkish business culture. Avoid extravagant gifts; small, meaningful gifts are preferred. Gifts should be beautifully wrapped, presented with both hands, and opened immediately upon receipt (Number One Property, 2024).

Table 2. Summary of the Cultural Characteristics of the Countries Included in the Study					
	Business Meals	**Punctuality**	**Gift Giving**	**Meaning of Colors**	**Meaning of Numbers**
Germany	Coffee, Beer	Very punctual	Rarely	Black, seriousness	13, unlucky
Italy	Coffee, Cake	Not punctual	Rarely	Black and gold, mourning. Purple, bad luck	13, unlucky
Russia	Tea, Meat dishes	Not punctual	Very important	Red, power	7, lucky
Spain	Coffee, Tapas	Not punctual	Rarely	Red, passion	7, lucky
France	Wine, Cheese	Partially punctual	Important	Blue, freedom	7, lucky
England	Tea, Pub Food	Punctual	Rarely	Red, power	7, lucky
China	Tea service	Very punctual	Very important	Red, luck. Blue, black, and white, funerals and death.	4, death. 8, abundance and prosperity.
India	Tea, Spicy Dishes	Not punctual	Not important	Red, power	7, lucky
Japan	Fish products, Green Tea	Very punctual	Very important	White, mourning	4, death.
Kazakhstan	Tea, Meat dishes	Not punctual	Partially important	Blue, trust	7, lucky
USA	Coffee, Fast-Food	Very punctual	Rarely	Blue, freedom	7, lucky
Iran	Tea, Meat dishes	Not punctual	Rarely	Green, sacredness	7, lucky
Egypt	Coffee, Persimmon	Partially punctual	Important	Green, sacredness	7, lucky
Türkiye	Coffee, Dessert	Partially punctual	Important	Red, happiness	7 and 9, lucky

Source: Prepared by the author.

Conclusion

Global economies form a building block for strong societies. Trade plays important roles in the development and strengthening of societies, and is seen as a factor that determines prosperity in most societies. Considering that trade takes place within a social framework, it is possible to say that the cultural values of societies influence trade. This is because when demanding a good or service, every society tends to prefer the one that best suits its own values. This situation increases the importance of trade culture in global trade.

Reflecting the traditions and customs of societies, trade culture influences many components of business life, from greetings and dress codes to business dining etiquette, punctuality, gift-giving, and contract etiquette. These components are not common to every culture but are important factors that influence commercial life and vary from culture to culture. Since no society would prefer to work with a company that is far from its own values, both companies exporting their goods for the first time and those continuing their exports should always consider these factors. Ignoring cultural values is considered a cause of commercial disputes in most societies.

This study conducted qualitative research on the cultural characteristics of certain countries to provide cultural guidance to companies wishing to export their goods or services for the first time and to those already engaged in exporting. It attempts to describe the cultural characteristics of countries randomly selected from Europe, Asia, North America, the Middle East, and North Africa. The study attempted to summarize the characteristics of these countries in terms of greetings, business meetings, business dinners, gift-giving, punctuality, and contract etiquette in the workplace.

According to the findings of the study, it was concluded that the vast majority of European and Asian countries value punctuality, while countries that are not punctual expect their counterparts to be punctual. It was also found that the vast majority of Middle Eastern and North African countries are not punctual but expect their counterparts to be punctual. The study also found that Asian countries are more respectful than other countries and generally use a closed language, and that they cannot say "No" because it is perceived as rudeness, and that not every "Yes" word is an acceptance or approval. While age is an important criterion for respect in Asian countries, achievements are seen as a criterion for respect in American countries rather than age. For some of the countries covered in the study, gift-giving is a sign of courtesy, while for some countries it is a phenomenon that can lead to misunderstanding. Furthermore, for some countries, arriving at a meal

on time is an important sign of respect, while for some countries arriving late is important, and for others arriving before the mealtime is important. In other countries, tipping is an acceptable behavior, but in Asian countries, leaving a tip at meals is a sign of rudeness and condescension. All these differences make it essential to thoroughly research the etiquette and cultural structures of the countries to be visited.

In conclusion, we can say that taking cultural values into account is one of the basic requirements for success in global economies. Arriving on time for business meetings, not taking offense at the flexibility of some societies on this issue, seating arrangements at meetings, points to consider at business dinners, whether or not the gift chosen for gift-giving should be expensive, avoiding certain numbers and symbols as gifts, how business cards are prepared and presented, and many other small details are fundamental components that influence business negotiations and contribute to their successful outcome. The characteristics of the countries discussed is summarized in Table 2.

Cultural values are important complementary elements for trade. Of course, they should not be seen as the sole factor for success in global trade. In addition to product characteristics such as quality, price, and packaging, economic indicators such as countries' levels of development, exchange rates, inflation, and interest rates; political and legal regulations such as government policies, customs tariffs, and international trade agreements; and natural and environmental factors such as geographical location, climate conditions, and natural disaster risk must also be taken into account. All these elements should be evaluated in conjunction with the cultural framework. This will enable the development of more comprehensive, sustainable, and effective strategies in global trade.

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Chapter 6

Globalisation and Extreme Poverty: A Conditional Relationship ᛃ

Gülşah Adam[1]

Abstract

This chapter analyses the relationship between globalisation and extreme poverty, arguing that globalisation is a conditional, rather than automatic, mechanism for poverty reduction. While the expansion of trade, foreign direct investment, and technological diffusion has coincided with an unprecedented decline in global extreme poverty since the 1980s, these gains have not been universal. Regions with weak institutions, limited state capacity, and persistent conflict have remained largely excluded from the benefits of global integration. Drawing on theoretical and empirical evidence, the chapter shows that the poverty impacts of globalisation operate through trade-led growth and labour-market effects, productivity gains from foreign direct investment and participation in global value chains, and exposure to financial volatility, but that the effectiveness of these channels is fundamentally conditioned by institutional quality, state capacity, and social protection systems. The chapter concludes that globalisation reduces poverty only when supported by strong institutions, inclusive governance, human capital investment, and effective social protection systems.

1. Introduction

Over the last four decades, the world economy has witnessed a wave of globalisation, symbolising an unprecedented integration of trade, finance, and technology. Especially since the late 1980s, the gradual reduction of tariffs, the liberalisation of capital movements, and revolutions in information technology have irreversibly linked national markets. This process has played a decisive role in the global fight against poverty.

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1   Asst. Prof. Dr., Kütahya Dumlupınar University, Department of Economics, 43100 Kütahya, Türkiye, e-mail: gusah.adam@dpu.edu.tr ORCID ID: 0009-0008-0950-8851

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One of the most significant outcomes of this period is the dramatic decline in the global population living in extreme poverty, defined as the $1.90 threshold (Hasell et al., 2022). According to the World Bank dataset, the extreme poverty rate fell from 43% in 1980 to below 10% today. This historical success supports the compelling argument that globalisation, by increasing prosperity through trade and growth, is the most effective tool in combating poverty. Bhagwati (2004) argues that the poverty-reducing impact of globalisation is inevitable, as it provides low-skilled labour in developing countries with access to the world market. According to him, the overall economic growth generated by integration eventually permeates the lowest segments of society and eliminates absolute poverty. This optimistic perspective is also supported by the empirical findings of Dollar and Kraay (2002), who demonstrated a strong correlation between economic growth and income growth among the poorest.

However, this success story is far from universal. This process remains a topic of ongoing debate within the academic community. While Asian countries experienced remarkable development, regions with weak institutional frameworks, such as those in Sub-Saharan Africa, failed to benefit sufficiently and were unable to break the cycle of poverty. Furthermore, rapid global integration, in particular, generated financial volatility and caused significant fluctuations in labour markets, leaving even those groups recently emerging from poverty vulnerable. Stiglitz (2002) — together with other critical economists such as Rodrik (1997, 2011), Chang (2002), and Milanovic (2016) — argues that the wealth created under globalisation has been unevenly distributed and that the gains achieved in poverty reduction remain highly fragile.

In this context, the main question of this chapter is whether, and under which conditions, globalisation contributes to the reduction of poverty. Focusing on income-based poverty measures, the chapter examines the mechanisms through which integration into the global economy translates into poverty reduction and highlights the conditional role of institutions, human capital, and social protection systems.

1.1. Conceptual Framework

1.1.1. Definition of Poverty

Poverty is an inherently complex and multidimensional phenomenon for which no single universal definition can be applied across contexts. In particular, high-income and low-income countries set very different national poverty lines to measure poverty meaningfully and contextually, taking into

account the income levels of their citizens. For example, in the United States, a person is considered poor if they live on less than $27.10 a day, while in Ethiopia, the poverty line is set at less than ten times that level—$2.59 a day (Hasell et al., 2022; Özcan, 2016).

Because these definitions vary significantly across countries, national poverty lines cannot be used for cross-country comparisons. To measure global poverty, a standardised poverty threshold that applies uniformly across nations is necessary. This is why the International Poverty Line of $3 a day, established by the World Bank and utilised by the United Nations to monitor global extreme poverty, is employed. From a global perspective, this threshold appears extremely low; it reflects the typical poverty lines used in the world's poorest countries (Hassell et al., 2022). Accordingly, this chapter adopts an income-based definition of poverty and uses the international extreme poverty line as its primary metric of analysis. The focus is therefore placed on measurable changes in material living standards and on identifying the economic and institutional mechanisms through which globalisation affects income poverty among the world's poorest populations.

1.1.2. Dimensions and Limits of Globalisation

The analysis examines globalisation in three main dimensions: Commercial Globalisation (increased trade in goods and services and integration into global value chains); Financial Globalisation (liberalisation of capital flows and FDI); and Technological Globalisation (diffusion of knowledge, skills, and innovations). These dimensions create different, often conflicting, interactions with poverty. While commercial globalisation is considered the main poverty-reducing force, financial globalisation will be examined as the main source of volatility and fragility.

The purpose of this analysis is to reveal whether globalisation has a net poverty-reducing effect, the mechanisms through which this effect occurs, and, as argued by Dani Rodrik (1997), why these mechanisms fail in some regions (due to poor institutional structures). The study aims to analyse the impact of globalisation on poverty in a multidimensional manner, not merely as a correlation but as a conditional causal relationship.

2. Optimistic Impact on Poverty: Growth Mechanisms

When examining the impact of globalisation on poverty, an optimistic view within academic and policy circles argues that globalisation is the most effective way to reduce poverty by accelerating economic growth and increasing productivity. Underlying this view is the belief that increased

trade, capital flows, and technological diffusion will unlock the full economic potential of developing countries (DCs). This section examines in detail the underlying theoretical mechanisms and empirical evidence supporting globalisation's success in combating poverty.

2.1. Trade Liberalisation and The Principle of Comparative Advantage

One of the most crucial impacts of globalisation on poverty is associated with economic growth and reallocation through trade liberalisation. According to the principle of Comparative Advantage, derived from classical economic theory, when countries focus on the goods they produce most efficiently, the distribution of global resources is optimised, increasing the overall welfare of all nations participating in trade. For developing economies, this often means specialising in the production of labour-intensive goods (textiles, basic assembly products) that rely on low-skilled labour and their own abundant, relatively cheap factors of production (Küçükaksoy et al., 2015).

Jagdish Bhagwati (2004) is one of the most prominent figures advocating for the success of globalisation in fighting poverty. Bhagwati contends that trade is one of the most potent anti-poverty tools, enabling poverty reduction by stimulating economic growth in poor countries and increasing the demand for low-skilled labour. In his view, trade eliminates the inefficiencies created by protectionist barriers and increases competition, which in turn forces resources to be used more efficiently. The economic rationale behind this thesis is supported by the Heckscher-Ohlin (H-O) model (1919) and the Stolper-Samuelson Theorem. According to the H-O model, labour-abundant economies tend to specialise in labour-intensive exports, leading to increased demand for less-skilled labour. Consequently, wages for less-skilled workers will rise relative to those for skilled workers (Korinek, 2005; Aguayo-Tellez, 2012). According to the Stolper-Samuelson Theorem, when trade is liberalised, the price of a country's abundant factor (i.e., low-skilled labour wages) increases, while the price of the scarce factors (capital/high-skilled labour) decreases (Stolper and Samuelson, 1941). In theory, this should result in direct wage increases and improvements in welfare for millions of people living in poverty.

Dollar and Kraay's (2002) panel data analysis of over 80 countries shows a positive correlation between the average income and the income of the poorest quintile. Their results suggest that growth driven by trade liberalisation and macroeconomic stability is a central mechanism for

reducing poverty, with low-income groups receiving a proportionate share of this growth (Dollar & Kraay, 2002; Kraay, 2006). Similarly, Winters, McCulloch, and McKay (2004), in their comprehensive review summarising the effects of trade reforms on poverty, emphasise the growth channel as the most consistent and well-documented mechanism through which trade reduces poverty.

At the global scale, the World Bank's Poverty and Shared Prosperity Report (2020) shows that the dramatic decline in extreme poverty after 1990 was largely driven by the rapid growth performance of East Asian economies – especially China - which were integrated into trade and remained macroeconomically stable (World Bank, 1993; Chen and Ravallion, 2008). Similarly, the World Bank's Globalisation, Growth, and Poverty report (2002) reveals that poverty declines more rapidly in countries where trade is liberalised and macroeconomic vulnerabilities are reduced than in countries that are not liberalised or stable. Therefore, the general consensus in the literature is that the impact of trade reforms on poverty operates largely through growth and the degree to which this growth is reflected in the incomes of the poor, rather than through direct price mechanisms (Ravallion, 2001; Winters et al., 2004).

2.2. Foreign Direct Investment (FDI), Technology, and Productivity

The second fundamental mechanism of globalisation's impact on poverty is FDI's capacity to transfer capital, technology, and management knowledge. According to Dunning's (1993) OLI paradigm and Hymer's (1976) theory of multinational firms, foreign investors not only provide financing but also transfer advanced production techniques, corporate governance skills, and know-how to host economies. Therefore, FDI is an important external resource that not only closes the investment gap but also increases productivity.

Empirical literature shows that multinational corporations systematically pay higher wages and offer better working conditions than domestic firms. Lipsey (2002), Aitken, Harrison, and Lipsey (1996), and Figlio and Blonigen (2000) argue that foreign firms have a wage premium; This premium, in particular, improves the welfare of low-skilled workers. Similarly, Javorcik (2014) demonstrates that FDI improves employment quality through local supply chains.

This dynamic has been clearly demonstrated in examples such as the maquiladora industry in Mexico. Feenstra and Hanson (1997; 1999)

demonstrate that the maquiladora sector provides regular income and stable employment for low-skilled workers from rural areas; Robertson (2004) has detailed the income effects of this sector on poverty. Hence, based on this evidence from Mexico, one can say that FDI-oriented export zones increase formal employment opportunities, which in turn increase access of workers to employment-based social security schemes.

FDI benefits local firms through the diffusion of technology and knowledge (Gokceli, 2023), which creates an indirect effect of FDI on poverty. Aitken and Harrison's (1999) study demonstrates that foreign firms increase their own productivity and sometimes raise sectoral productivity; however, the study shows that there are limited horizontal spillovers. Javorcik's (2004) analysis of "forward linkages" shows that the technical capacity of domestic firms, particularly those in the supply chain, increases. Comprehensive literature reviews by Görg and Strobl (2001; 2005) also emphasise that FDI can indirectly increase national welfare through innovation and increased productivity.

Globalisation is not limited to trade liberalisation and capital mobility, but also encompasses technological diffusion, knowledge accumulation, and structural transformation of national economies (Yıldız, 2024). Global value chain integration further accelerates this process. Gereffi and Fernandez-Stark (2011), Timmer et al. (2014), and UNCTAD (2013) show that firms participating in value chains adapt more quickly to new technologies, raise quality standards, and thus narrow the technology gap. Baldwin (2016), using the "great convergence" argument, argues that global production networks bring firms in low-income countries closer to advanced technologies.

These productivity gains may not have a direct impact on poverty; however, increases in total factor productivity contribute to the fight against poverty in the long run by expanding wages, job quality, and economic opportunities.

3. The Challenges of Emerging from Poverty: Failure and Vulnerability

The success of trade and economic growth in reducing poverty is particularly striking in East Asian examples, but this success is not universal. While globalisation has generated rapid income increases in countries with strong integration capacities, it has contributed to the perpetuation of poverty in regions facing integration barriers (World Bank, 2002). The lack of integration into global production networks, exacerbated by financial vulnerabilities and structural inequalities created by institutional weaknesses,

makes even households newly emerging from absolute poverty vulnerable to economic shocks. This section examines these fundamental mechanisms that limit, and in some contexts reverse, the impact of globalisation on absolute poverty.

3.1. Exclusion and Regional Disaggregation: Where Global Flows Cannot Reach

While globalisation can theoretically create opportunities for all countries, in practice economic integration is highly selective. World Bank (2020) data show that the sharp decline in global poverty after 1990 was largely due to Asia's export-led growth model. In contrast, absolute poverty rates have remained high in regions with limited integration capacity, particularly in Sub-Saharan Africa (SSA).

Trade exclusion is one of the key mechanisms explaining this situation. The share of SSA countries in global trade has not increased over the past four decades and has even declined in some periods (World Bank, 2002; UNCTAD, 2013). The region's export structure is largely based on commodities and low-processed products, making economies vulnerable to international price shocks (UNCTAD, 2013). Because commodity dependence does not generate sustainable wage growth or employment expansion, the theoretical expectations of low-skilled labour, predicted by the Stolper–Samuelson mechanism, have not materialised for the region. The picture is similar regarding investment flows. A significant portion of FDI directed to SSA is concentrated in natural resource sectors with weak vertical linkages to the local economy. The potential for technological diffusion and employment creation for such investments is limited. Positive spillover mechanisms, such as those demonstrated by Javorcik (2004) through supply chain linkages, often fail to emerge in natural resource-focused investments. Therefore, SSA's failure to achieve the expected gains from globalisation is largely related to this asymmetry in the region's production structure, openness, and investment composition.

3.1.2. Institutional and Conflict-Based Traps

An increasingly accepted view in the globalisation literature is that trade and capital flows can reduce poverty only under certain institutional conditions. As Rodrik (1997; 2000; 2008; 2011) emphasises, globalisation is not a policy choice but a process shaped by the institutional infrastructure that operates on it. In contexts where property rights are weak, the rule of law is limited, and state capacity is low, openness to the outside world

often attracts short-term, rent-seeking capital flows rather than encouraging productive investment.

Governance problems, corruption, and institutional fragility in many countries in Sub-Saharan Africa create high uncertainty for economic actors; investors prefer to focus on politically protected sectors rather than being directed toward long-term productive activities (Knack & Keefer, 1995; Mauro, 1995; Asiedu, 2006; Collier, 2007; Rodrik, 2007; Acemoglu & Robinson, 2012). North's (1990) institutional economics and Mauro's (1995) work documenting the impact of corruption on investment explain why trade integration, coupled with institutional weaknesses, fails to produce sustainable development.

These institutional weaknesses are accompanied by high levels of political instability in most SSA countries. The conflict economics literature demonstrates that civil wars slow economic growth (Collier & Hoeffler, 1998; 2004), weaken state capacity (Fearon & Laitin, 2003), and irreversibly erode social welfare. Conflict not only disrupts production but also leads to global supply chains completely excluding these regions. Consequently, a "trap" emerges in which conflict and institutional weakness feed each other. This institutional vicious cycle, as described by Olson (1993) and Acemoğlu and Robinson (2012), systematically blocks pathways out of poverty and neutralises the potential benefits of globalisation.

3.2. Volatility and Crises in Financial Globalisation

Unlike trade integration, financial globalisation has been the most significant source of vulnerability for many developing countries. The liberalisation of capital movements has increased the sudden inflows and outflows of short-term portfolio investments and deepened macroeconomic instability. Stiglitz (2002; 2010) argues that this inherent fragility of the international financial architecture has left developing countries vulnerable to a series of external shocks, from the 1997 Asian Crisis to the 2008 Global Crisis.

The economic impacts of financial crises are often sudden and far-reaching. Capital flight triggers exchange rate collapses, sharp increases in interest rates, and the collapse of the banking system. These shocks directly impact the real sector; businesses close, unemployment rises, and national income falls sharply. Critically, such crises target households that have recently emerged from poverty. These groups, with limited savings and no access to social security, are completely vulnerable to income losses. As Ravallion (2009) has shown, the rate of increase in poverty during periods

of crisis is higher and more persistent than the rate of decrease during periods of growth; thus, financial shocks "recycle" poverty.

The impact of financial crises is not limited to temporary income shocks. Poor and vulnerable households are forced to cut back on their children's education and healthcare expenses during crises, reducing the human capital and social mobility potential of future generations (Jacoby & Skoufias, 1997; Thomas et al., 2004; Ferreira & Schady, 2009; Ravallion, 2009; UNICEF, 2009). In this context, the volatility of financial globalisation appears not only to temporarily increase absolute poverty but also to perpetuate the cycle of poverty across generations.

4. Conditional Success: Inclusive Governance and Policy Interventions

Debates on the impact of globalisation on reducing absolute poverty are characterised by a sharp contrast between rapid poverty reduction in East Asia and persistent poverty in Sub-Saharan Africa. This contrast reinforces the fundamental thesis that globalisation, in and of itself, is neither an automatic engine of development nor a universal threat. Trade, capital flows, and technological diffusion may create significant opportunities for countries, but the actual translation of these opportunities into poverty-reducing outcomes is determined by a country's institutional quality, human capital, social protection capacity, and policy choices. This section analyses the key institutional and social components that enable success by viewing the impact of globalisation on poverty as a conditional process.

4.1. Institutional Quality: Governance, Inclusiveness, and State Capacity

This framework requires a more nuanced examination of how institutions shape the impact of globalisation on poverty. The quality of institutions not only directs investment and trade flows but also determines their distributional impact on poverty. The poverty-reducing potential of globalisation depends not only on the degree of openness to the outside world, but also on the institutional foundation upon which this openness is built. Dani Rodrik (1997; 2000; 2008; 2011) demonstrates that globalisation is a "superstructure," but that its functioning is determined by the "deep structures" of countries. Countries where property rights are secure, the rule of law is strong, state capacity is well developed, and accountable governance mechanisms are in place are much more likely to benefit from trade and capital flows. Conversely, in contexts with low institutional quality, globalisation cannot activate the necessary chain mechanisms for growth

and poverty reduction. This is the fundamental reason why integration into global markets in Sub-Saharan Africa (SSA) remains limited and fragile. Acemoğlu and Robinson's (2001; 2005) institutional-based development theory argues that the factor determining long-term growth performance is not geography or culture, but rather inclusive institutions. Conversely, arbitrary state interventions that fail to protect property rights and disrupt market performance demonstrate that rent-based systems, which weaken security and act as extractive institutions, hinder economic dynamism. In this context, many SSA countries lack a legal infrastructure and predictable economic rules that investors can trust. Mauro's (1995) study examining the relationship between corruption and investment shows that bribery and arbitrariness seriously reduce investment volume, while Knack and Keefer (1995) emphasise that governance quality is one of the most consistent determinants of growth rate. Therefore, globalisation, in environments with low institutional quality, often turns into a dynamic that attracts rent-based short-term capital flows but fails to stimulate productive investment.

A central manifestation of institutional weakness in many low-income countries is armed conflict and political instability. The conflict economics literature has demonstrated that civil wars and political violence have devastating and lasting effects on economic growth, typically reducing growth rates by 2-4% and significantly increasing the persistence of poverty (Collier and Hoeffler, 1998; 2004). Weak state capacity is a key driver of this process: Fearon and Laitin (2003) argue that weak state capacity is one of the most important parameters increasing the risk of conflict, while Stewart (2002) discusses that ethnic and regional inequalities create structural challenges that fuel conflict.

Conflict weakens development in both direct and indirect ways. Beyond destroying human lives, armed violence devastates physical infrastructure, reduces productive capacity, undermines the private sector's incentive to invest, and deepens economic actors' perceptions of risk. As a consequence, fragile and conflicted regions systematically fall short of attracting long-term productive capital and remain excluded from global production networks. Findings from global value chain studies discuss that multinational firms avoid politically unstable environments, excluding politically fragile regions from international supply networks (Baldwin, 2016; UNCTAD, 2013).

More importantly, a vicious cycle emerges between conflict and weak institutions, which are mutually reinforcing. When state capacity is weak, the risk of conflict increases, and the resulting conflict further undermines the effectiveness of public institutions. This institutional trap, as defined

by Olson (1993), systematically blocks not only economic activity but also pathways out of poverty. The World Bank's Poverty and Shared Prosperity report (2020) shows that the regions where absolute poverty is most concentrated and persistent globally are almost exclusively in conflict and post-conflict countries. Dynamics such as a fragmented production structure due to political instability, labour migration, loss of human capital, and shrinking local markets negate any potential gains from globalisation.

Rodrik (2007) emphasises that for the benefits of globalisation to be realised, countries need policy space—the institutional capacity to implement reforms and administrative oversight. However, in much of SSA, state capacity is insufficient to develop strategic sectors, implement competitive agricultural and industrial policies, or strengthen social protection mechanisms. Bräutigam (2009) and Fosu (2011) attribute the failure of development experiences in Africa largely to state capacity, institutional integrity, and the quality of implementation. Under these circumstances, globalisation becomes a potential but unrealised opportunity; the necessary chain mechanisms for poverty reduction never fully function.

In short, what determines globalisation's capacity to reduce poverty is not the openness of markets, but the institutional infrastructure upon which these markets operate. When weak institutions, political violence, conflict, and low state capacity combine, countries fail to transform the opportunities offered by globalisation into economic and social development; as a result, poverty becomes a persistent structural feature.

4.2. Human Capital and Social Protection

Globalisation is a dynamic process requiring continuous skill adaptation and technological innovation. Therefore, the extent to which a country benefits from globalisation depends largely on the level of its human capital. Skill-biased technological change, highlighted by Acemoglu (2002), increases the demand for a highly skilled workforce as global integration deepens. The transition to high-productivity sectors is only possible with broad access to education and inclusive human capital policies.

Broad-based investments in education have played a central role in the development experience of East Asian countries. Before shifting to export-led growth strategies, countries in the region, particularly South Korea and Taiwan, raised the skill level of their workforce through universal education campaigns and vocational training programs, thus creating a labor force capable of rapidly adopting new technologies and adapting to higher value-added production processes (World Bank, 1993; Rodrik, 1995; Birdsall et

al., 1995; Barro & Lee, 2013). Thanks to human capital accumulation, the industrial structure has undergone an upward transformation, accompanied by integration into global markets, widespread job creation, and rapid poverty reduction. On the other hand, even if globalisation generates growth in countries where access to education remains limited, this growth appears to be insufficiently reflected in the incomes of the poor. Due to human capital constraints, low-skilled labour cannot enter sectors integrated into global markets, and the resulting income growth is concentrated in a narrow segment. The literature demonstrates that the poverty-reducing impact of trade and growth is conditioned by the education levels and workforce mobility (Ravallion, 2001; Winters et al., 2004; Dollar & Kraay, 2002; World Bank, 2002).

While education-based human capital accumulation opens channels out of poverty, the sustainability of these gains depends on protecting households against global economic fluctuations. Macroeconomic fluctuations generated by globalisation make households, especially those emerging from poverty and those with extremely limited savings capacity, vulnerable to income shocks. Such shocks force households into short-term survival strategies, leading to reductions in spending on children's education and healthcare, thereby hindering human capital accumulation (Jacoby & Skoufias, 1997; Thomas et al., 2004; Ferreira & Schady, 2009). Effective social safety nets serve as a key buffering mechanism against this vulnerability. Social protection instruments such as unemployment insurance, health insurance, and conditional cash transfers ensure continued household well-being by preventing temporary income losses from turning into permanent poverty (Ravallion, 2009; Fiszbein & Schady, 2009).

One of the most powerful examples of this mechanism is the Bolsa Família program implemented in Brazil. By providing regular income support to households, particularly during times of crisis and uncertainty, the program has contributed to maintaining child enrollment rates and maintaining access to basic health services. Empirical studies show that Bolsa Família limits the reversal effect of economic fluctuations on poverty and weakens the intergenerational transmission of poverty (Fiszbein & Schady, 2009; Ferreira et al., 2013).

4.3. Policy Orientations and International Cooperation: Active Management of Globalisation

Enhancing the poverty-reducing effects of globalisation requires an active policy framework rather than a passive adaptation process. Comparative

development studies consistently show that the outcomes of globalisation rely not only on market integration but also on the domestic institutional and policy contexts through which global economic forces are channelled (Rodrik, 2007; Stiglitz, 2010; World Bank, 2002).

At the national level, policies for industrialisation and structural transformation complement openness to trade. Evidence from East Asia indicates that strategic support for productive sectors, export promotion, and policies aimed at strengthening linkages between domestic firms and multinational corporations support technological upgrading and job creation (Rodrik, 1995; Amsden, 1989; UNCTAD, 2013). Integrating domestic firms into global value chains fosters learning-by-doing and productivity spillovers, turning trade integration into a driver of inclusive growth (Gereffi & Fernandez-Stark, 2011; Timmer et al., 2014). Investments in rural infrastructure further expand the geographic reach of trade gains, particularly benefiting poor and remote areas by lowering transport costs and enhancing market access (World Bank, 2008; Fan & Zhang, 2004). Complementary financial regulation is also crucial: effective management of capital flows reduces the risk of sudden stops and alleviates crisis-induced setbacks in poverty reduction (Stiglitz, 2010; Ocampo, 2012).

At the international level, improving the equity of the global trading system remains essential for reducing poverty. Protectionist policies in developed countries—particularly in agriculture and textiles—continue to limit export opportunities for developing economies and skew the distribution of benefits from global trade (Anderson, 2004; World Bank, 2002; UNCTAD, 2013). Development assistance can play a supportive role when it is directed towards countries committed to improving governance and strengthening state capacity, and when aid is combined with targeted investments in human capital and institutional development (Burnside & Dollar, 2000; Collier & Dollar, 2002).

Ultimately, what determines the effect of globalisation on absolute poverty is not globalisation itself, but the institutional and policy tools countries use to manage the integration process. Trade and capital flows create economic opportunities, but converting these opportunities into sustained poverty reduction requires strong domestic institutions, inclusive social policies, and effective state capacity (Rodrik, 2007; Stiglitz, 2010).

5. Results and Policy Implications

This study addressed the long-standing academic dilemma regarding the net impact of globalisation on absolute poverty by arguing that the process

offers conditional success. The optimistic evidence in Chapter 2 and the critical observations in Chapter 3 clearly illustrate this conditional nature. Globalisation has served as an engine for reducing poverty when the right policies are implemented, but where institutions are weak, it has become a risk factor that reinforces the poverty cycle.

The study's key findings summarise three main conclusions regarding the impact of globalisation on poverty. Firstly, globalisation has reduced absolute poverty on a historically unprecedented scale. This success is largely the result of large-population economies like China and India, which have specialised in labour-intensive production and successfully integrated into global supply chains. Secondly, globalisation has excluded regions with weak institutional structures, at risk of conflict, and excluded from global flows, such as Sub-Saharan Africa. Furthermore, as criticised by Stiglitz (2002), financial globalisation has made newly extricated households, particularly in Asia and Latin America, vulnerable to capital flight shocks, increasing the risk of a reversal of gains. Finally, as detailed in Chapter 4, the poverty-reducing impact of globalisation depends fundamentally on national policy choices and institutional capacity. Integration into global markets produces inclusive outcomes only if it is accompanied by sustained investment in human capital, effective social protection mechanisms that limit economic vulnerability, and high-quality institutions that ensure the productivity translation of foreign direct investment and trade gains. As Rodrik (2008) emphasises, the rule of law, inclusive governance, and anti-corruption frameworks are fundamental prerequisites for enabling globalisation to generate technology transfer, productivity gains, and broad-based prosperity, rather than simply generating narrow profit margins. Therefore, combating poverty in today's global economy cannot be reduced to simply liberalising markets; rather, it requires an active development strategy that supports market integration through education policies, stabilises exits from poverty with social safety nets, and ensures the spread of gains throughout society through institutional reforms.

Achieving the poverty-reducing potential of globalisation requires coordinated and integrated policy actions. Primarily, human capital investments should be at the heart of national development plans to build a workforce equipped to handle the skill-biased technological changes accelerated by globalisation. This includes expanding inclusive basic education and vocational training programmes, especially for children in impoverished communities. Without complementary social safety nets, sustainable poverty reduction remains elusive. Conditional cash transfers, health insurance, and similar social protections help prevent relapse by

providing critical buffers against employment shocks from global and structural disruptions. These must be supported by robust institutional reforms, such as ensuring political stability, protecting property rights, and increasing transparency in public administration, particularly in regions with high poverty levels. Such reforms will encourage foreign direct investment into sectors that generate jobs and reduce poverty, rather than rent-seeking industries. Lastly, international cooperation is vital. Developed countries should eliminate trade barriers- especially those affecting labour-intensive exports like agricultural products subsidised by some nations- to foster a fairer global trading system. Development aid should focus on strengthening institutions and integrating marginalised regions, notably Sub-Saharan Africa, into global trade through infrastructure investments.

In a nutshell, globalisation alone is not a solution; however, when managed correctly, it presents a unique opportunity for countries struggling with poverty. To achieve sustainable success in poverty reduction, the economic logic of globalisation must be balanced with the political imperatives of social justice and institutional inclusiveness.

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Chapter 7

The Relationship Between Current Account Balance and Economic Growth: The Case of MINT Countries[1]

Hüseyin Ersöz[2], Özer Özçelik[3]

Abstract

This study examines the relationship between the current account balance and economic growth in MINT countries—Mexico, Indonesia, Nigeria, and Türkiye—using annual panel data for the period 1981–2019. Panel unit root tests indicate that the variables are stationary, allowing for long-run analysis. The existence of a long-run equilibrium relationship is tested using Pedroni, Kao, and Johansen–Fisher panel cointegration methods. Long-run coefficients are estimated through the Fully Modified Ordinary Least Squares (FMOLS) approach, while the direction of causality is analyzed using the Dumitrescu–Hurlin panel causality test. The findings reveal a significant long-run cointegration relationship between economic growth and the current account balance. FMOLS results show that economic growth positively affects the current account balance in the long run, and causality runs unidirectionally from growth to the current account. These results highlight the importance of considering external balance constraints in designing sustainable growth policies for emerging market economies.

Introduction

Globalization, financial liberalization, and the rise in capital mobility have

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2   PhD Candidate, Kütahya Dumlupınar University, Graduate School, Department of Economics, ORCID: 0000-0001-5078-1659

3   Assoc. Prof. Dr., Kütahya Dumlupınar University, Faculty of Economics and Administrative Sciences, Department of Economics, ozer.ozcelik@dpu.edu.tr, ORCID: 0000-0001-9164-5020

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made the relationship between countries' growth performance and external balance dynamics more visible. As the current account balance reflects an economy's savings–investment balance and dependence on external financing, the direction and strength of the relationship between the current account and economic growth are of critical importance for sustainable growth. The empirical literature shows that this relationship varies across country groups, time periods, and methodological approaches; therefore, no single, universal conclusion has been reached (Bagnai & Manzocchi, 1998; Chinn & Prasad, 2003; Hepaktan & Çınar, 2012; Çalışkan & Şahin, 2021).

A significant portion of studies on Türkiye reveal a strong relationship between economic growth and current account deficits, which mostly runs from growth to deficit (Erbaykal, 2007; Avcı, 2015; Özkaya & Cinel, 2020; Korkmaz & Yılmaz 2024'den sonra ; Özcan & Özçelik 2024). The import-dependent production structure and the growth model based on domestic demand expansion cause the current account deficit to widen during growth periods, suggesting that the "growth-led current account deficit" hypothesis is valid in the Turkish context. Conversely, some studies have identified a bidirectional or time-varying relationship, emphasizing that the current account–growth linkage is sensitive to the economic cycle and exhibits an asymmetric structure.

In the context of emerging market economies, this debate gained momentum with Jim O'Neill's 2001 work *"Building Better Global Economic BRICs,"* in which Brazil, Russia, India, and China (BRIC) were defined as the new driving forces of global growth (O'Neill, 2001). However, the slowdown in the growth performance of BRICS countries after 2010 increased interest in new emerging economy groups. The MINT group—comprising Mexico, Indonesia, Nigeria, and Türkiye—introduced by O'Neill in 2013, has attracted attention due to its young and growing populations, strategic geographic positions, and production and raw material potentials. According to World Bank data, during the period 2013–2019, the MINT countries experienced continuous population growth but displayed heterogeneity in terms of growth, inflation, unemployment, and current account indicators (World Bank, 2020).

This study aims to contribute to the literature by examining the relationship between the current account balance and economic growth in MINT countries for the period 1981–2019 using a panel data approach. The current account is defined as the ratio of the current account balance to GDP, while economic growth is measured as the annual real growth rate of GDP, thereby allowing the indicators to be compared within a consistent

framework (World Bank, 2020). The use of panel data increases estimation power by simultaneously considering both time-series and cross-sectional dimensions and enables control for country-specific heterogeneity (Baltagi, 2005; Yerdelen Tatoğlu, 2013).

Methodologically, the study first applies panel unit root tests proposed by Levin, Lin, and Chu (2002), Breitung (2000), Im, Pesaran, and Shin (2003), and Maddala and Wu (1999). Then, the long-run relationship is investigated through panel cointegration tests developed by Pedroni (1999, 2004), Kao (1999), and the Johansen–Fisher panel cointegration test. The long-run coefficients are estimated using the Fully Modified Ordinary Least Squares (FMOLS) method (Phillips & Hansen, 1990; Pedroni, 2000), while the causal relationship is tested through the Dumitrescu and Hurlin (2012) panel causality test.

The findings indicate the existence of a long-run cointegration relationship between GDP and the current account balance in MINT countries. Economic growth positively affects the current account balance in the long term, and there exists a unidirectional causality running from growth to the current account. These results highlight the necessity of considering the external balance constraint in designing growth policies for emerging market economies.

1. Historical Development of MINT Countries

In the 2000s, Brazil, Russia, India, and China emerged as prominent rising economies. These countries were first grouped together as BRIC by Jim O'Neill, the chief economist of Goldman Sachs, in 2001. In his influential report titled "Building Better Global Economic BRICs," O'Neill emphasized that the global economy required such dynamic countries for sustained growth (Goldman Sachs, 2001; Haibin, 2012). The BRIC countries held their first summit in Russia in 2009, and with the inclusion of South Africa in 2011, the group became known as BRICS (ATAUM, 2011). However, following 2010, the slowdown in BRICS countries' growth performance led to the emergence of new discussions around other rising markets.

At the end of 2013, O'Neill proposed the acronym MINT to describe Mexico, Indonesia, Nigeria, and Türkiye — countries he considered to be the future engines of the global economy (O'Neill, 2013; Akın, 2018; Aydın & Bashimov, 2018; Financial Times, 2013). The common features of the MINT countries include young and growing populations, strategic geographic locations, and strong production and raw material potentials

(BBC, 2014; Tıraşoğlu, 2018; Çakmak & Salar, 2019). Mexico's proximity to the United States, Indonesia's closeness to China, Nigeria's position as one of Africa's key economic hubs, and Türkiye's location near the European Union make these countries prominent actors at both regional and global levels (Şenel Uzunkaya, 2019; Hayaloğlu, 2015).

In 2013, based on nominal GDP rankings, Mexico was the 14th largest economy, Indonesia 16th, Türkiye 17th, and Nigeria 37th in the world. Additionally, all but Nigeria recorded budget surpluses, reinforcing the rationale for the MINT classification (Yılmaz, 2015). Mexico's petroleum investments, Nigeria's agricultural development efforts, Indonesia's industrial strengthening alongside raw material exports, and Türkiye's export-oriented growth and efforts to reduce the current account deficit positioned these countries firmly as emerging market economies (Yılmaz, 2015; Şenel Uzunkaya, 2019). The inability of BRICS economies to sustain their earlier success after 2010, coupled with the youthful demographics and strategic locations of these four nations, provided fertile ground for recognizing MINT countries as a new group of emerging economies (Şenel Uzunkaya, 2019; Hayaloğlu, 2015).

1.1. Demographic and Economic Indicators of MINT Countries

The MINT countries—comprising Mexico, Indonesia, Nigeria, and Türkiye—hold a significant place in the literature as a group of nations characterized by large and youthful populations alongside emerging economic potential. This section presents a comparative analysis of the demographic dynamics, economic growth trends, price stability, labor market indicators, and external balance performance of the MINT countries for the period 2013–2019. All data have been obtained from the World Bank database.

Figure 1. Population Change in MINT Countries (2013–2019)
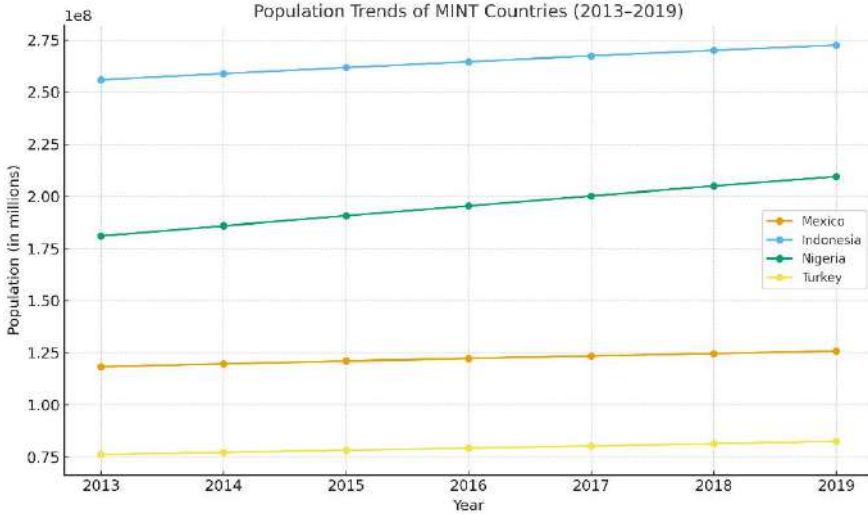
Source: Created by the authors based on World Bank data.

As shown in Figure 1, the MINT countries experienced a continuously increasing population structure between 2013 and 2019. Indonesia and Nigeria are the two countries with the highest population levels within the group. Nigeria's population is considered not only one of the fastest-growing during the observed period but also one of the most rapidly expanding populations globally in the coming decades. Türkiye and Mexico, on the other hand, exhibit slower but stable population growth. Overall, the demographic structure of the MINT countries provides a favorable advantage for economic growth by ensuring a high labor supply and a large domestic market potential.

Figure 2. GDP Trend in MINT Countries (2013–2019)
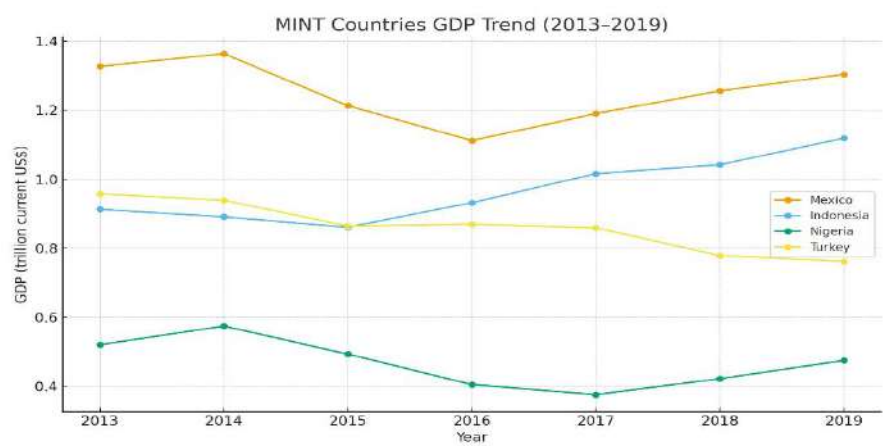
Source: Created by the authors based on World Bank data.

Figure 2 reveals notable differences in the economic growth performance of MINT countries. While Türkiye and Mexico display relatively stable GDP values, Nigeria experienced a sharp contraction after 2014, largely associated with declining oil prices and structural vulnerabilities. Indonesia, by contrast, maintained the most stable growth profile throughout the period and exhibited a clear upward trend after 2016. This improvement reflects the success of the country's domestic demand–oriented growth strategy and the gradual enhancement of its investment environment.

Figure 3. Inflation Rates in MINT Countries (2013–2019)
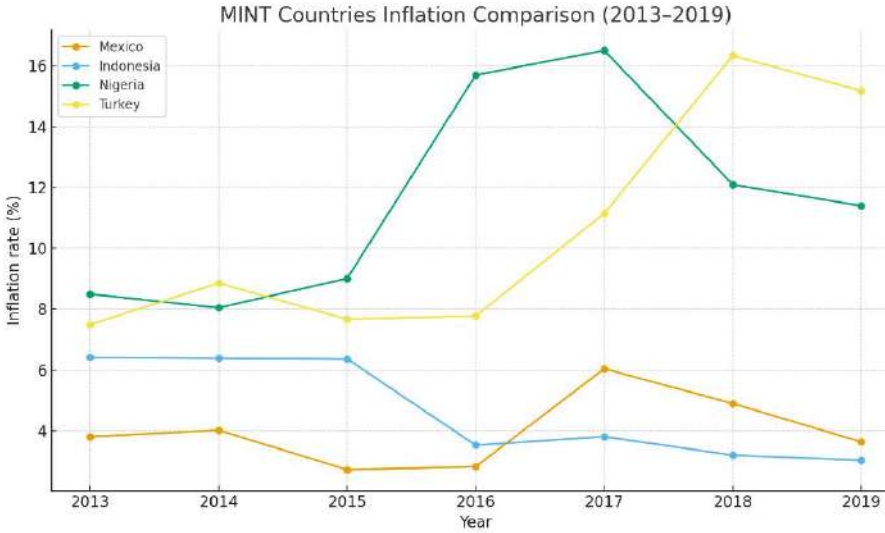
Source: Created by the authors based on World Bank data.

As illustrated in Figure 3, the inflation series reveal that the MINT countries exhibit markedly different structures in terms of price stability. Nigeria recorded the highest and most volatile inflation rates throughout the period. In particular, the sharp rise of inflation to double-digit levels after 2016 was associated with currency depreciation, supply-side shocks, and security-related disruptions. In Türkiye, inflation also increased rapidly after 2017, reaching levels comparable to Nigeria's during 2018–2019. In contrast, inflation rates in Mexico and Indonesia remained relatively moderate, presenting a more balanced outlook in terms of long-term price stability.

Figure 4. Unemployment Rates in MINT Countries (2013–2019)
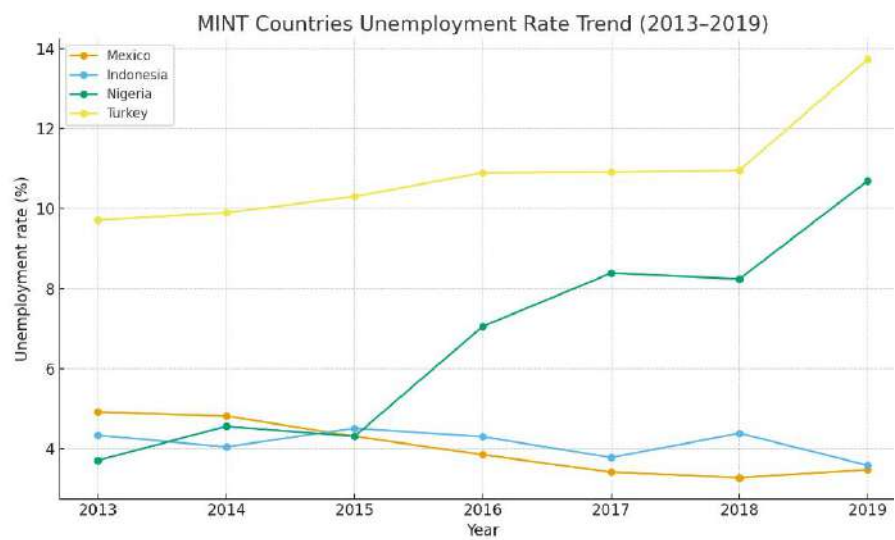
Source: Created by the authors based on World Bank data.

Figure 4 shows that unemployment rates vary significantly across MINT countries. Türkiye had the highest unemployment rate at the end of the observed period, which can be attributed to rising labor force participation and the reflection of growth fluctuations in the labor market (World Bank, 2024d). In Nigeria, unemployment rates increased sharply after 2016. In contrast, Indonesia and Mexico maintained relatively lower and more stable unemployment levels. The greater flexibility of their labor markets can be considered one of the main factors underlying this stability.

Figure 5. Comparison of Current Account Balances
(% of GDP) in MINT Countries (2013–2019)
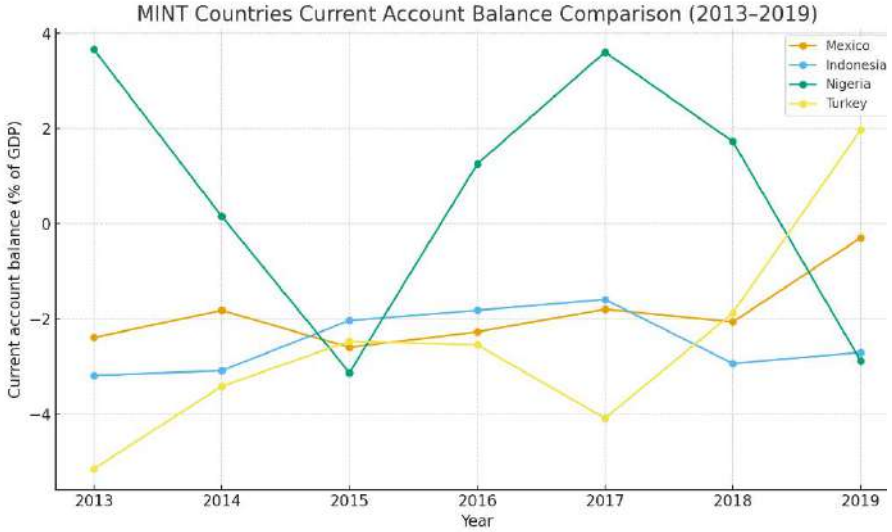
Source: Created by the authors based on World Bank data.

The external balance performances of the MINT countries are presented comparatively in Figure 5. Türkiye's current account balance shows significant fluctuations, with a strong surplus recorded in 2019. This surplus is mainly associated with demand contraction and a sharp decline in imports. Mexico and Indonesia, on the other hand, generally stand out as countries running persistent current account deficits, primarily due to their import-dependent production structures. Nigeria's current account balance is largely influenced by oil prices; therefore, fluctuations in global energy prices directly affect the country's external balance.

Overall, despite their demographic advantages, the MINT countries do not constitute a homogeneous group in terms of economic indicators. Indonesia demonstrates relatively stable growth and price balance, whereas Nigeria exhibits the most volatile economic performance due to structural fragilities. In Türkiye, particularly after 2017, noticeable deteriorations have been observed in both inflation and unemployment. Mexico, in contrast, differentiates itself from the others with its relatively stable yet moderate growth performance.

These differences indicate that MINT countries require distinct economic policy strategies tailored to their structural characteristics. Although

demographic size represents a common advantage, the sustainability of macroeconomic stability varies considerably across these economies.

2. Literature Review: The Relationship Between Current Account Balance and Economic Growth

When examining the direction and magnitude of the interaction between foreign trade and growth, focusing solely on exports within the concept of foreign trade may lead to vastly different and misleading conclusions. This narrow approach may create the illusion of observing certain causality relationships that, in fact, do not exist or cannot be empirically observed. In other words, analyses that consider only exports while ignoring imports produce biased and incomplete results. Therefore, analyzing the relationships of both exports and imports with economic growth together allows for more realistic and reliable findings (Korkmaz & Aydın, 2015, p. 48).

The dynamic relationship between the trade balance—particularly the current account balance (or deficit)—and economic growth is one of the most frequently examined topics in international economics and macroeconomics literature. This relationship is empirically tested through different hypotheses such as *Export-Led Growth (ELG)*—where exports stimulate economic growth—and *Growth-Led Current Account Deficit (GLCAD)*—where economic growth increases domestic demand, leading to a current account deficit. Empirical findings vary substantially depending on the econometric methods applied, the period covered, and the countries or country groups analyzed. This heterogeneity arises from the complexity of the relationship itself and the influence of external shocks such as global crises, pandemics, and energy price fluctuations.

The relationship between the current account balance and economic growth remains one of the most debated issues in international macroeconomic literature. Due to structural differences among countries, varying levels of financial integration, and methodological diversity, the literature has not reached a consensus on a single, universal conclusion. The following tables summarize key studies on this subject in terms of their scope, country groups, and main findings.

Table 1. Studies Examining the Relationship Between Current Account Balance and Economic Growth in Türkiye			
Author(s)	**Period Covered**	**Country/ Region**	**Main Finding / Relationship**
Şahin (2004)	2000–2004	Türkiye	Increase in trade efficiency is positively related to economic growth.
Karabulut & Çelikel Danışoğlu (2006)	1991–2001	EU-15; Türkiye	Positive relationship between current account deficit and growth in the EU; no significant relationship in Türkiye.
Erbaykal (2007)	1987–2006	Türkiye	Demand growth driven by economic expansion positively affects the current account deficit.
Peker & Hotunluoğlu (2009)	1992–2007	Türkiye	The effect of current account deficit on growth is weak.
Telatar & Terzi (2009)	1991–2005	Türkiye	Growth negatively affects current account balance; no reverse causality detected.
Erdil Şahin (2011)	2001–2011	Türkiye	The current account deficit emerges as a result of domestic demand expansion driven by growth.
Yediparmak (2014)	2003–2012	Türkiye	Increase in economic growth leads to a rise in current account deficit.
Avcı (2015)	1998–2014	Türkiye	Unidirectional causality from growth to current account deficit.
Ayvaz Güven (2016)	1980–2015	Türkiye and Brazil	Bidirectional relationship between growth and current account deficit.
Bağırtan (2018)	1991–2018	Türkiye	Policies that reduce the current account deficit have a positive effect on economic growth.
Bakaç (2019)	1984–2017	Türkiye	Economic growth has a current-account-widening effect.

Cesur & İrez (2019)	1990–2017	Türkiye	Bidirectional causality between growth and current account deficit; growth negatively affects the current account.
Türkoğlu & Konaç (2020)	1984–2016	Türkiye	Increasing current account deficits positively affect economic growth.
Özkaya & Cinel (2020)	2006–2019	Türkiye	Growth expansion increases the current account deficit.
Güngör vd. (2022)	1990–2021	Türkiye	Bidirectional causality running from growth to current account deficit.
Oğuz & Erdoğan (2023)	2000–2021	Türkiye	Bidirectional and time-varying relationship between current account deficit and economic growth.

Source: Compiled by the authors from various empirical studies on Türkiye.

The studies summarized in Table 1 focus primarily on the Turkish economy and generally indicate a strong and predominantly unidirectional relationship between economic growth and current account deficit. Most of the literature reveals that in Türkiye, economic growth tends to widen the current account deficit due to the country's dependence on imports (Erbaykal, 2007; Avcı, 2015; Özkaya & Cinel, 2020; Korkmaz & Yılmaz, 2024). This situation is closely related to the production structure's reliance on imported intermediate goods and the expansion of domestic demand during growth periods, which leads to a widening trade deficit.

Some studies, however, identify a bidirectional relationship. For instance, Ayvaz and Güven (2016), Güngör et al. (2022), and Oğuz and Erdoğan (2023) show that the relationship between the current account deficit and economic growth may change direction over time and is sensitive to the economic cycle. This finding reflects Türkiye's high vulnerability to external financing conditions and global liquidity fluctuations.

On the other hand, several researchers, such as Telatar and Terzi (2009), find that growth has a negative effect on the current account balance but that there is no significant feedback from the current account to growth. This result supports the argument that the current account deficit in Türkiye primarily stems from trade and demand dynamics driven by growth. Overall, the Turkish literature provides strong empirical support for the "growth-led current account deficit" hypothesis.

Table 2. Studies Examining the Relationship Between Current Account Balance and Economic Growth in Other Countries			
Author(s)	Period Covered	Country/ Region	Main Finding / Relationship
Bagnai & Manzocchi (1998)	1965–1994	49 Countries	Negative relationship between current account deficit and economic growth.
Chinn & Prasad (2000)	1971–1995	18 developed, 71 developing countries	Weak relationship between current account balance and growth.
Kandil & Greene (2002)	1960–2000	United States	Long-term negative relationship between current account balance and growth.
Bussiere, Fratzscher & Müller (2004)	1980–2002; 1995–2002	12 EU-related countries; 21 OECD countries	Weak relationship between current account balance and economic growth.
Winters, McCulloch & McKay (2004)	-	Various countries	Positive relationship between foreign trade and growth.
Malik vd. (2010)	1972–2007	Pakistan	Positive relationship between the tourism sector and economic growth.
Hepaktan & Çınar (2012)	1975–2008	27 OECD countries	In the long run, economic growth leads to a decline in the current account balance.
Erataş & Başcı Nur (2013)	1990–2010	10 emerging market economies	Bidirectional relationship between current account balance and growth.
Songur & Yaman (2013)	1981–2010	10 developing countries	Bidirectional relationship between current account balance and growth.
Oğuz (2018)	1994–2017	BRICS countries	No statistically significant relationship between current account balance and growth.

Balmumcu & Bozkurt (2020)	1980–2016	22 developing countries	Current account deficit and economic growth move together.
Aydın vd. (2021)	2000–2019	G7 countries	Current account balance has an asymmetric and weak effect on growth.
Çalışkan & Şahin (2021)	2005–2020	10 developing countries	Trade deficit negatively affects growth in the medium and long term.
Kouamé & Egbendewe (2022)	2000–2020	Sub-Saharan African (SSA) countries	Sustainability of the current account deficit positively influences growth.
Korkmaz & Yılmaz (2024)	2010–2022	Selected emerging markets	Unidirectional effect from growth to current account deficit (growth-led CA hypothesis).

Source: Compiled by the authors from international empirical studies.

The studies presented in Table 2 were conducted across various country groups and indicate a heterogeneous relationship between current account balance and economic growth. Some studies suggest that current account deficits constrain growth (Bagnai & Manzocchi, 1998; Hepaktan & Çınar, 2012; Çalışkan & Şahin, 2021), while others argue that deficits can stimulate growth by encouraging capital inflows (Türkoğlu & Konaç, 2020; Kouamé & Egbendewe, 2022).

Research focusing on developed countries generally finds weaker or statistically insignificant relationships. For example, Chinn & Prasad (2000), in their analysis covering 89 countries, found that fluctuations in the current account balance have a very limited effect on growth. Similarly, Oğuz (2018) found no significant relationship in BRICS economies, a result that may stem from the substantial structural differences among these countries.

In emerging market economies, however, the relationship tends to be bidirectional or asymmetric (Songur & Yaman, 2013; Kouamé & Egbendewe, 2022). This pattern indicates that in economies with high sensitivity to capital flows, current account balance and growth are mutually interactive and dynamically linked variables.

The main reasons for the differences observed in the literature include import dependency of the production structure, degree of financial openness,

sensitivity to global shocks, external borrowing capacity, and exchange rate regime, among other macroeconomic factors.

The MINT countries—characterized by high growth potential, domestic demand-driven expansion, strong dependence on foreign capital, and rapidly increasing financial integration—represent a unique case within the emerging markets. Therefore, examining the current account–growth nexus specifically for MINT economies contributes to reassessing the contradictory findings in the literature in light of the structural features of emerging market economies.

3. Econometric Methodology and Summary of Empirical Findings

This study investigates the relationship between current account balance and economic growth in MINT countries—Mexico, Indonesia, Nigeria, and Türkiye—using annual data for the period 1981–2019 and employing panel data analysis. The current account variable is defined as the percentage change in the ratio of the current account balance to GDP, while the economic growth variable is defined as the percentage change in GDP. Hence, both growth performance and external balance dynamics are analyzed through relative and comparable ratios (World Bank, 2020).

Given that the MINT panel includes a small cross-section dimension (N = 4) but a long time dimension (T = 39), panel data methods that jointly evaluate both cross-sectional and time-series dimensions are considered appropriate. The use of panel data not only increases the number of observations, thereby improving estimation efficiency, but also allows control for unobserved country-specific heterogeneity (Baltagi, 2005; Güriş, 2015; Yerdelen Tatoğlu, 2013).

For this reason, the panel data framework was adopted as the core analytical approach, and all estimations were carried out using EViews 9 econometric software.

The general panel model is specified as follows:

$CD_{it} = \alpha_i + \beta GSYH_{it} + \mu_{it} \ i=1,...,N; \ t=1,...,T$

Here:

- ✓ CD_{it} : Represents the current account balance indicator.
- ✓ $GSYH_{it}$: Represents the economic growth indicator.
- ✓ α_i : Denotes country-specific fixed effects.
- ✓ β: Refers to the long-run coefficient.

✓ μ_{it} : Denotes the error term.

The model covers the period 1981–2019 for the MINT countries (Mexico, Indonesia, Nigeria, and Türkiye).

3.1. Panel Unit Root Tests

In panel data analyses, stationarity is a prerequisite for the reliable testing of cointegration relationships. Including non-stationary series in the model may lead to the spurious regression problem (Granger & Newbold, 1974; Çifçi, et al., 2018a; Adam, 2024); therefore, it is essential to correctly determine the order of integration of the variables. Accordingly, in this study, panel unit root analyses were conducted using the tests developed by Levin, Lin, and Chu (2002), Breitung (2000), Im, Pesaran, and Shin (2003), and the Fisher-type ADF and PP tests proposed by Maddala and Wu (1999). All tests were implemented using the EViews 9 econometric software package.

3.1.1. Panel Unit Root Test Results at Level (I(0))

The results of the panel unit root tests performed at level values are presented in Table 3. The test statistics and probability values obtained under both constant and constant–trend model specifications indicate that both the current account balance and GDP series are stationary at level. Specifically, the probability values in the Levin–Lin–Chu (LLC) and Im–Pesaran–Shin (IPS) tests are found to be below the 0.05 significance level, implying the rejection of the null hypothesis of a common unit root across the panel.

These results are consistent with the relevant literature. The LLC test assumes a common autoregressive parameter among the series (Levin et al., 2002), whereas the IPS test allows for heterogeneous unit root processes across cross-sections (Im et al., 2003). The consistency of both approaches in favor of stationarity enhances the methodological robustness and reliability of the findings obtained in this study.

Table 3. Panel Unit Root Test Results at Level (I(0))				
Panel Unit Root Tests	Constant		Constant and Trend	
	Current Account Balance (CD)			
	Test Statistic I(0)	p-value I(0)	Test Statistic I(0)	p-value I(0)
Levin, Lin & Chu	-2.62342	0.0044	-1.90310	0.0285
Breitung			-1.85432	0.0318
Im, Pesaran & Shin	-3.13266	0.0009	-1.90932	0.0281
Fisher ADF	24.0838	0.0022	15.9866	0.0426
Fisher PP	24.3028	0.0020	16.6274	0.0342
	Gross Domestic Product (GDP)			
Levin, Lin & Chu	-8.41297	0.0000	-7.93619	0.0000
Breitung			-3.82393	0.0001
Im, Pesaran & Shin	-9.05809	0.0000	-7.95462	0.0000
Fisher ADF	79.5880	0.0000	63.3930	0.0000
Fisher PP	80.4068	0.0000	64.2414	0.0000

According to Table 3, all test statistics reject the null hypothesis of a unit root at the 5% significance level. Both the current account balance and GDP series are stationary at level under constant and constant–trend specifications. The significance of the LLC, IPS, Fisher-ADF, and Fisher-PP tests confirms that the series are integrated of order zero, I(0), indicating that the data are suitable for further long-run (cointegration) analysis.

3.1.2. Panel Unit Root Test Results at First Difference (I(1))

The test results for the first-differenced series are presented in Table 4. Accordingly, all test statistics are found to be significant, confirming that the variables are stationary at their first differences. This indicates that both at level (I(0)) and at first difference (I(1)), stationarity is achieved, suggesting

that the panel dataset is suitable for cointegration analysis.

Moreover, the Fisher-type ADF and PP tests, which combine individual unit root statistics from each cross-section, produce robust results, particularly in heterogeneous panels, thereby supporting the findings of this study (Maddala & Wu, 1999).

Consequently, it is evident that the series exhibit no stationarity problems, meaning that the risk of spurious regression is eliminated and that proceeding to cointegration testing is methodologically appropriate.

Table 4. Panel Unit Root Test Results at First Difference (I(1))				
	Constant		Constant and Trend	
	Current Account Balance (ΔCD)			
Panel Unit Root Tests	**Test Statistic I(1)**	**p-value I(1)**	**Test Statistic I(1)**	**p-value I(1)**
Levin, Lin & Chu	-9.20243	0.0000	-8.06674	0.0000
Breitung			-3.87826	0.0001
Im, Pesaran & Shin	-10.7925	0.0000	-9.96738	0.0000
Fisher ADF	97.1163	0.0000	82.0162	0.0000
Fisher PP	121.077	0.0000	171.792	0.0000
	Gross Domestic Product (ΔGDP)			
Levin, Lin & Chu	-19.1370	0.0000	-18.0311	0.0000
Breitung			-9.18114	0.0000
Im, Pesaran & Shin	-18.3936	0.0000	-18.1518	0.0000
Fisher ADF	153.481	0.0000	217.847	0.0000
Fisher PP	95.7043	0.0000	919.227	0.0000

Note: I(0) denotes the test statistics of the series at their level values, whereas I(1) represents the test statistics of the series at their first differences.

According to Table 4, all unit root tests reject the null hypothesis of non-stationarity at the 1% significance level. Both the current account balance and GDP series are confirmed to be stationary at their first differences, I(1). These results indicate that the data meet the requirements for performing panel cointegration tests in the subsequent stages of the analysis.

3.2. Cointegration Analyses

Based on the results obtained from the panel unit root tests, a panel cointegration analysis was conducted to determine whether a long-run relationship exists between the current account balance and economic growth. Two complementary testing approaches were employed in this study:

✓ **Pedroni (1999; 2004) Panel Cointegration Test**

✓ **Kao (1999) Panel Cointegration Test**

The Pedroni test provides both *within-group* and *between-group* statistics, allowing for heterogeneity in the parameters across cross-sections. This feature makes it a widely preferred method in studies involving large and diverse country panels. In contrast, the Kao (1999) test adapts the Engle–Granger residual-based approach to a panel framework and assumes a common cointegrating vector for all cross-sections. Using both tests together enhances the methodological robustness of the analysis and allows for a consistency check of the results.

In this analysis, the fact that both tests support the existence of a long-term cointegration relationship indicates that the current account balance and economic growth move together in the long run and maintain a stable economic relationship. This finding is consistent with prior empirical studies on developing countries (e.g., Holmes, Otero, & Panagiotidis, 2011). Additionally, to further validate the robustness of the results, the Johansen–Fisher Panel Cointegration Test was also applied and evaluated.

Table 5. Results of Panel Cointegration Tests				
Pedroni Panel Cointegration Test Results				
	Statistic Value	**p-value**	**Weighted Statistic**	**p-value**
(Within-Dimension)				
Panel v	0.714229	0.2375	-0.258285	0.6019
Panel rho	-7.044419	0.0000	-8.029015	0.0000
Panel PP	-7.474540	0.0000	-8.515287	0.0000
Panel ADF	-6.981705	0.0000	-6.651975	0.0000
(Between-Dimension)				
Group rho	-6.239258	0.0000		
Group PP	-10.72114	0.0000		
Group ADF	-8.421009	0.0000		
Kao Panel Cointegration Test Results				
		Statistic Value		**p-value**
ADF		-4.474456		0.0000
Residual Variance		23.21522		
HAC Variance		5.242413		
Johansen-Fisher Panel Cointegration Test Results				
Null Hypothesis	**Fisher Statistic (from Trace Test)**	**p-value**	**Fisher Statistic (from Max-Eigen Test)**	**p-value**
No cointegrating vector	62.05	0.0000	43.66	0.0000
At most one cointegrating vector	38.78	0.0000	38.78	0.0000

The Pedroni test provides both *within-dimension* and *between-dimension* statistics, thereby capturing both the common (pooled) and individual (group-specific) dynamics in a panel data structure (Pedroni, 2004). As seen in Table 5, the *Panel rho*, *Panel PP*, and *Panel ADF* statistics are statistically significant. Likewise, the *Group rho*, *Group PP*, and *Group ADF* statistics also reject the null hypothesis of no cointegration. Although the *Panel v* statistic is not statistically significant, the significance of all other statistics strongly indicates the existence of a long-run cointegration relationship between the variables. This outcome is consistent with Pedroni's (1999) framework, in which the PP and ADF statistics are generally considered more powerful and reliable indicators of cointegration. Therefore, it can be concluded that there exists a long-term equilibrium relationship between GDP and the current account balance in the MINT countries.

The Kao (1999) test, unlike Pedroni's approach, assumes a common cointegrating vector across the entire panel. As shown in Table 5, the ADF statistic is -4.47 with a p-value of 0.0000, leading to the rejection of the null hypothesis of "no cointegration." Thus, the presence of a cointegration relationship between the variables is confirmed by a second independent method.

The consistency of the results from both tests provides methodological robustness, confirming the existence of a strong long-term relationship. The Johansen–Fisher panel cointegration test, which adapts Johansen's (1988) multivariate cointegration approach to a panel context through a Fisher-type combined testing procedure, further reinforces these findings. As shown in Table 5, both the *trace test* and *maximum eigenvalue test* reject the null hypothesis.

The rejection of both hypotheses "no cointegrating vector" and "at most one cointegrating vector"- demonstrates that there exists at least one long-run cointegration relationship across the panel. This finding is fully consistent with the results obtained from the Pedroni and Kao tests, confirming the existence of a stable long-run equilibrium between the current account balance and economic growth in the MINT economies.

3.3. Panel FMOLS Long-Run Coefficient Estimates

Following the confirmation of the cointegration relationship, the Fully Modified Ordinary Least Squares (FMOLS) method was employed to estimate the long-run coefficients. This approach allows for the unbiased estimation of the long-run slope parameters by correcting for serial correlation and endogeneity that may arise in cointegrated panels. For this

reason, FMOLS is widely used in empirical studies dealing with long-run equilibrium relationships in panel data frameworks (Phillips & Hansen, 1990; Pedroni, 2000; Çifçi et al., 2018b; Yaşar, 2019).

Table 6: Panel FMOLS Cointegration Results				
Independent Variable	Coefficient	Standard Error	t-Statistic	p-Value
GDP (Economic Growth)	0.208259	0.116210	1.792097	0.0752

According to Table 6, the FMOLS results show that the coefficient of GDP is 0.208259, which is statistically significant at the 10% level (p = 0.0752). This indicates that a long-term increase in GDP has a positive effect on the current account balance.

This finding aligns with the literature suggesting that, particularly in developing economies, sustained economic growth can contribute to the improvement of external balance through mechanisms such as productivity gains, export diversification, and enhanced competitiveness (e.g., Holmes, Otero, & Panagiotidis, 2011).

3.4. Dumitrescu–Hurlin Panel Causality Analysis

While the cointegration tests confirm the existence of a long-run equilibrium relationship between the variables, the Dumitrescu and Hurlin (2012) panel causality test is applied to determine the direction of causality between the current account balance and economic growth. The results of this analysis are presented in Table 7.

Table 7. Dumitrescu–Hurlin Panel Causality Test Results						
	Lag: 1			Lag: 2		
Null Hypothesis	W-Stat.	Z-Stat.	p-Value	W-Stat.	Z-Stat.	p-Value
GDP Current Account Balance	2.99610	2.46430	0.0137	5.68264	3.11257	0.0019
Current Account Balance GDP	0.73104	-0.41961	0.6748	0.57641	-1.36535	0.1721

The findings obtained for different lag lengths can be interpreted as follows:

• GDP → Current Account Balance (Causality Exists):

For both lag specifications, the *W* and *Z* statistics are statistically significant ($p < 0.05$). Therefore, the null hypothesis stating that "GDP does not cause the current account balance" is rejected. This indicates the presence of a unidirectional causality from GDP to the current account balance.

• Current Account Balance → GDP (No Causality):

The probability values are well above 0.05, and the null hypothesis cannot be rejected in either lag structure. This suggests that there is no causality from the current account balance to GDP. Hence, across the entire panel, the direction of causality is unidirectional from GDP to the current account balance. This finding implies that economic growth is a key determinant of external balance dynamics.

When all results are evaluated together:

✓ There exists a long-run cointegration relationship between GDP and the current account balance.

✓ According to the FMOLS estimations, GDP positively affects the current account balance in the long run.

✓ The causality analysis clearly reveals the direction of the relationship, showing a unidirectional causality from GDP to the current account balance (GDP → CAB).

These findings demonstrate that in the MINT countries, economic growth dynamics play a decisive role in shaping the current account balance, which is fully consistent with the existing empirical literature on emerging market economies.

Conclusion

This study examined the relationship between the current account balance and economic growth in the MINT countries—Mexico, Indonesia, Nigeria, and Türkiye—using annual data for the period 1981–2019 within a panel data analysis framework. The findings reveal that although MINT countries share similar demographic and economic characteristics, they exhibit heterogeneous structures in terms of external balance and growth dynamics. The results of the panel unit root tests indicate that both variables

are stationary at level and at first difference, allowing for the analysis of their long-run relationship through panel cointegration tests.

The results of the Pedroni (1999, 2004) and Kao (1999) panel cointegration tests provide strong evidence of a long-run equilibrium relationship between the current account balance and economic growth. The Johansen–Fisher test further supports these findings, confirming that external balance and growth move together in the long term in the MINT countries. This outcome is consistent with previous empirical studies showing that the behavior of external balance is closely linked to growth performance in developing economies (e.g., Chinn & Prasad, 2003; Holmes, Otero, & Panagiotidis, 2011).

According to the FMOLS long-run estimation results, economic growth has a positive effect on the current account balance. This finding suggests that in MINT countries, stronger growth performance can improve the current account position. In particular, for countries that manage to diversify their production structure, increase export capacity, and reduce dependence on energy imports, external balances may improve in parallel with economic growth.

The Dumitrescu–Hurlin panel causality analysis clearly identifies the direction of causality as unidirectional—from economic growth to the current account balance. This implies that while economic growth influences the current account balance, changes in the external balance do not produce a systematic feedback effect on growth. Considering the macroeconomic structure of MINT economies, this result indicates that domestic demand–driven growth plays a decisive role in determining external balance dynamics.

Overall, the findings demonstrate that in MINT countries, sustainable growth policies should be designed with consideration of external balance constraints. Despite demographic advantages and high growth potential, factors such as energy dependence, import-intensive production, and sensitivity to global markets make the external balance vulnerable. Therefore, in the long-term growth strategies of MINT countries, it is crucial to focus on enhancing export capacity, increasing value-added production, and strengthening macroeconomic stability to ensure sustainable and resilient economic development.

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Chapter 8

Türkiye's Search for New Trade Partners: The Shanghai Cooperation Organization and Beyond ⊃

Murat Mere[1]

Abstract

The global order established after World War II has begun to be questioned by many countries following recent developments, and countries have evaluated these organizations as having become parties to crises rather than resolving them. These developments have also sparked discussions about alternative global orders. At this juncture, the organization, initially known as the Shanghai Five during its founding phase and later gaining considerable public recognition, has attracted the attention of many countries with its rising values. With its rapid institutionalization and resounding declarations, the Shanghai Cooperation Organization has transcended the status of a regional cooperation organization. Based on this framework, this study provides information on the historical development of the Shanghai Cooperation Organization and its institutional structure. The rapprochement between Türkiye and the Shanghai Cooperation Organization and the trade relations between the organization's countries with Türkiye are evaluated.

Introduction

Türkiye, thanks to its geopolitical location, civilization, deep-rooted history, and accumulated wealth, is a significant country in communication with a wide swath of the world. It also sits at a crucial nexus connecting two major continents: Asia and Europe. Besides possessing NATO's second-largest army, it is an active union member. It is also a member of numerous regional and international organizations. However, its long-standing, volatile relationship with the European Union and failure to achieve full membership have forced Türkiye to seek new opportunities. Türkiye's

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1   Asst. Prof., Afyon Kocatepe University, Başmakçı Vocational School, Foreign Trade Department, meremurat@aku.edu.tr, ORCID: 0000-0002-8511-2583.

convenient transportation channels in all directions, coupled with recent investments in transportation, infrastructure, and the defense industry, have placed the country in an advantageous position. Leveraging this advantage will contribute to Türkiye's diversification of its relationships with other countries, particularly by increasing its share of foreign trade and achieving higher economic growth. In light of all these assessments, it would be appropriate to consider the Shanghai Cooperation Organization (SCO) as an organization through which Türkiye seeks alternatives to develop its trade relations and enrich its relations with different countries and geographies.

The collapse of the Soviet Union marked the end of the bipolar structure in the international system. This marked the beginning of a new era globally and within Central Asia. Despite the collapse of the Soviet Union, one of the countries within the bipolar international system, the United States (US) emerged stronger from the Cold War. In the context of Central Asia, the power vacuum resulting from the collapse of the Soviet Union was addressed through various regional and global initiatives. In this context, the US will undoubtedly be one of the actors that can influence Central Asia in terms of economic and military power and fill the void. However, the Russian Federation and China, the successors of the Soviet Union, have also become influential actors in the regional power struggle (Pirinçci, 2008, p. 208).

Following the collapse of the Soviet Union in 1991, the rapprochement with China continued during the Russian Federation's tenure. Three fundamental reasons brought the two countries closer, paving the way for the formation of the SCO. The first was the security of the long, historical borders between the Russian Federation and China. The protection of mutual economic interests constituted the second key element. The third key factor in the rapprochement between the Russian Federation and China was anti-Americanism. Anti-Americanism was not limited to the Russian Federation and China. The US's attempts to manipulate the internal dynamics of the Central Asian republics and its desire to disrupt the status quo established by the authoritarian regimes in these countries caused turmoil in these countries (Öz & Erasa, 2013, p. 36-37).

From its inception to today, the SCO has evolved from security cooperation to political, economic, cultural, and interpersonal cooperation. Security cooperation is one of the original driving forces behind the SCO's emergence as a regional organization. With the SCO's development, the scope of cooperation has been continuously expanded, and cooperation in political, economic, military, cultural, and other fields has been shaped based on security cooperation. Defense and security cooperation constitutes a priority area of SCO cooperation and has been a significant driver of its development. SCO security cooperation encompasses both traditional and

non-traditional security. Traditional security primarily encompasses border security, military exchanges, military exercises, and other military mutual trust practices. Non-traditional security constitutes an important component of security cooperation among SCO member states. It has also manifested itself in joint efforts to combat the "three forces" of terrorism, extremism, and separatism, as well as combating drug trafficking, transnational crime, and illegal migration (Xue & Magengo, 2021, p. 190-191).

The study briefly explores the historical development of the Shanghai Cooperation Organization and provides information on its institutional structure. It then assesses the factors that led Türkiye to seek new trading partners and assesses its rapprochement with the Shanghai Cooperation Organization.

1. Historical Development of the Shanghai Cooperation Organization

China and Russia's long-standing border security issue has played a significant role in their rapprochement. Furthermore, anti-American sentiment plays a significant role in the Sino-Russian rapprochement. Despite Russia's good relations with the West, its feeling of exclusion from global influences, particularly in Europe and Asia, significantly impacts this rapprochement. On the other hand, China is uneasy about the US's criticism of human rights and increasing trade with Taiwan. As a result of all this, the growing relationship between China and Russia evolved into a constructive partnership and then a strategic one in the 1990s (Çolakoğlu, 2004, p. 175).

The Central Asian states that gained independence with the collapse of the Soviet Union were affected by political, military, security, and economic threats. Furthermore, the US presence in the region after the September 11 attacks influenced the relations and foreign policy strategies of Middle Eastern states. These developments influenced Russia, China, and Türkiye, which share borders with the Middle East, and led Asian states to collaborate on foreign policy (Deniz, 2013, p. 219).

Negotiations were held with the former Soviet republics to resolve existing border issues. On September 8, 1992, a meeting was held in Minsk, the capital of Belarus, with the deputy foreign ministers of Russia, Kazakhstan, Kyrgyzstan, and Tajikistan. It was concluded that China should also be present at the meeting, as there would be no solution without China (Özdaşlı, 2012, p. 109).

The agreement, which would later be called the Shanghai Five, was signed in Shanghai, China, on April 26, 1996, to deepen military confidence

in the border regions during the summit talks held with the participation of the heads of state of Kazakhstan, Kyrgyzstan, Tajikistan, China, and Russia (Al-Qahtani, 2006, p, 129-130). The agreement, signed in 1996, agreed to take confidence-building measures to ensure security in the border region, a region characterized by numerous disputes between China and Russia, and to eliminate the possibility of armed conflict along the border. This agreement aims to prevent potential border conflicts between the five parties and foster better neighborly relations between China and other countries (Özdaşlı, 2012, p. 110).

Secondly, an agreement was signed at the summit held in Moscow on April 24, 1997, to reduce military forces in border regions. This initiative, essentially initiated by China and Russia and enriching interstate relations, presents a new global vision encompassing the principles of mutual trust, disarmament, cooperation, and security (Al-Qahtani, 2006, p. 129-130).

The third meeting, held in Almaty, the capital of Kazakhstan, in 1998, addressed for the first time issues beyond defense and border issues, such as economic cooperation, combating fundamentalist religious movements, and combating international crime. This meeting marked the first time the talks were multilateral among the five countries. Furthermore, the meeting emphasized support for efforts to halt the nuclear arms race in South Asia and reduce nuclear weapons worldwide, demonstrating that the organization was not limited to regional matters but rather a global voice (Yener, 2013, p. 74-75).

The member countries of the Shanghai Five have agreed on five fundamental principles for the organization's continued operations. These principles include: non-interference in the internal affairs of sovereign states; combating fundamentalism, separatism, and terrorism; not supporting the development of the US national missile defense system; developing political, economic, social, and cultural relations among member states; and developing communication channels among member states through meetings held between heads of state, foreign affairs and defense ministers, and various working groups (Özdaşlı, 2012, p. 114).

At a summit held in Shanghai on June 15, 2001, the city where the Shanghai Five emerged, Uzbekistan was admitted to full membership. With Uzbekistan's participation, the Shanghai Cooperation Organization was established. Uzbekistan's participation marked the first time a country outside the border joined the organization established to ensure border security. Regulations regarding observer status were adopted at the 2004 summit of heads of state in Tashkent. Mongolia was accepted as an observer member at this summit, while Iran, Pakistan, and India were accepted as

observers at the 2005 Astana summit. Regulations regarding dialogue partner status were adopted at the 2008 summit in Dushanbe. Dialogue partners participate in meetings to develop cooperation on specific issues, but do not have decision-making authority. At the 2009 summit in Yekaterinburg, Russia, Sri Lanka and Belarus were accepted as dialogue partners. At the 2012 Beijing summit, Türkiye joined the organization as a dialogue partner, and Afghanistan as an observer. Dialogue partner status was granted at the 2015 meeting in Ufa, Russia, Azerbaijan, Armenia, Cambodia, and Nepal. At the 2017 summit in Astana, Pakistan and India were admitted as full members, bringing the number of full SCO members to eight. At the 2021 summit in Dushanbe, Iran was declared the ninth full member. The same summit also granted dialogue partner status to Saudi Arabia, Qatar, and Egypt. At the 2022 SCO summit in Samarkand, procedures were initiated for Bahrain, the Maldives, the United Arab Emirates, Kuwait, and Myanmar to join the organization as dialogue partners. Belarus was accepted as a full member in 2024, bringing the total number of members to ten.

Table 1 summarizes the countries that are full members, observer members, and dialogue partners of the Shanghai Cooperation Organization.

Table 1. The Constituent States of the Shanghai Cooperation Organization		
Full Member	**Observer Member**	**Dialogue Partner**
China (1996)	Mongolia (2005)	Sri Lanka (2009)
Russian Federation (1996)	Afghanistan (2012)	Türkiye (2012)
Kazakhstan (1996)		Azerbaijan (2015)
Kyrgyz Republic (1996)		Armenia (2015)
Tajikistan (1996)		Cambodia (2015)
Uzbekistan (2001)		Nepal (2015)
India (2017)		Saudi Arabia (2021)
Pakistan (2017)		Egypt, Arab Republic (2021)
Iran, Islamic Republic (2021)		Qatar (2021)
Belarus (2024)		Bahrain (2022)
		Maldives (2022)
		Kuveyt (2022)
		Myanmar (2022)
		United Arab Emirates (2022)

Source: This table has been prepared by the author of the study using information from the SCO's official website.

The Shanghai Cooperation Organization (SCO) aims to cooperate in politics, security, economics, culture, and humanitarian affairs. The organization also exemplifies the regional strategy that became widespread after the Cold War, which envisions organizing at the regional level to address regional issues. It has been stated that cooperation within the organization will be conducted according to the principles of sovereignty, equality, non-interference in internal affairs, and respect for territorial integrity. The Shanghai Spirit will prevail in all relations between members, encompassing the principles of mutual trust, mutual benefit, equality, consultation, respect for cultural diversity, and shared development goals. This principle is reiterated in nearly all of the organization's official documents (Çakır, 2024, p. 1151).

Since its founding, the Shanghai Cooperation Organization has long been described as the "New Warsaw Pact Organization" due to its operations within the framework of China, Russia, and the Central Asian republics. The states within the organization were even treated as the Eastern Bloc in the new Cold War. However, the organization's subsequent geographical expansion has discredited these arguments. The 2017 summit in Astana ushered in a new phase in the organization's development. With granting full membership status to India and Pakistan at the summit, perceptions of the SCO began to shift. India and Pakistan's warm relations with the US also significantly influenced this shift (Hamzaoğlu, 2024, p. 213).

The Shanghai Cooperation Organization (SCO) has laid the groundwork for member countries to cooperate on common security challenges in the region. The United States' increasing influence in Central Asia, particularly following its invasion of Afghanistan in the early 2000s, has created the need for Russia and China to act together regionally against the US. Furthermore, Russia, through the organization, has sought to balance and control China's influence in Central Asia (Kaya, 2019, p. 67).

The SCO is not theoretically a defense alliance. However, depending on military-political developments in the Asia-Pacific and Central Asia, the SCO may transform into a military bloc. These military exercises always have the potential to establish a foundation. The SCO also holds observer status in the United Nations General Assembly. The Joint Declaration on Cooperation was signed in Tashkent in 2010 between the Secretaries of the United Nations and the SCO. In addition to the United Nations and its specialized agencies, the SCO has established cooperation with organizations such as the Commonwealth of Independent States (CIS), the Collective Security Treaty Organization (CSTO), and the Association of

Southeast Asian Nations (ASEAN). These cooperation mechanisms have also elevated the SCO from a regional to an interregional level (Hamzaoğlu, 2024, p. 214).

Table 2. Economic Data of SCO Member States for 2024						
Countries	Surface Area (km²)	Population (total)	GDP		Foreign Trade Volume current US$ (million)	
			current US$ (million)	per capita (current US$)	Goods Exports	Goods Imports
China	9.562.950	1.408.975.000	18.743.803	13.303	3.408.991	2.641.015
Russian Federation	17.098.250	143.533.851	2.173.836	14.889	433.092	300.124
Kazakhstan	2.724.902	20.592.571	288.406	14.005	80.080	61.196
Kyrgyz Republic	199.950	7.224.614	17.478	2.419	2.253*	9.172*
Tajikistan	141.379	9.100.837	14.205	1.341	1.422	5.936
Uzbekistan	448.924	36.361.859	114.965	3.162	19.626	33.160
India	3.287.260	1.450.935.791	3.912.686	2.697	447.166	726.403
Pakistan	796.100	251.269.164	373.072	1485	32.122	55.675
Iran Islamic Republic	1.745.150	91.567.738	436.906	4.771	***	***
Belarus	207.630	9.133.712	75.962	8.317	39.496	44.197
Total	36.212.495 (%25.78)	3.430.185.227 (%42.13)	26.151.319 (%23.49)	7.624	4.464.250 (%18.94)	3.876.879 (%16.68)
The World	140.419.457	8.142.056.446	111.326.470	13.673	23.567.549	23.237.605

Source: Edited by the author from https://data.worldbank.org/country.*Shows data for 2023. *** Data is not available.

Table 2 shows some economic data of the full SCO member countries for the year 2024. The data was obtained from the World Bank database. Since Kyrgyzstan's 2024 foreign trade figures were unavailable in the database, 2023 foreign trade figures were used. Additionally, the Islamic Republic of Iran's foreign trade data from 2001 to the present could not be obtained because it was not available in the World Bank database. The total land area of the member countries is 36,212,495 km², constituting 25.78% of the world's land area. The total population of the member countries is 3,430,185,227, corresponding to 42.13% of the world's population. The total GDP of the member countries is 26 trillion USD, constituting approximately 23.49% of the world economy. With a total export figure of $4,464,250 million,

it accounts for 18.94% of global exports, and with a total import figure of $3,876,879 million, it accounts for 16.68% of global imports. Since its inception, the SCO has attracted the attention of other countries. When data from observer and dialogue partner countries are added to these figures, it appears the organization will capture a larger global market share.

2. Institutional Structure of the Shanghai Cooperation Organization

Emphasizing cooperation in security, economy, and culture, the SCO is institutionally composed of seven main organs, which form the organization's foundation. These organs are (Hepaktan, 2017, p. 398-399; Öz & Erasa, 2013, p. 38-39):

The Council of Heads of State: Convenes regularly once a year in one of the member states. The Council is chaired by the head of state of the hosting country. It is the highest-level decision-making body, attended by heads of state, and important issues discussed and consulted in other councils are decided upon in this council. The Council makes decisions regarding relations with states and international organizations and the organization's institutional structure and functioning.

The Council of Heads of Government: It meets annually, like the Council of Heads of State. It is a secondary mechanism with primary responsibilities such as approving the budget and concluding economic agreements. The presidency of the Council of Heads of Government is chaired by the head of government of the country, who hosts the regular meetings.

The Council of Foreign Ministers: One of the organization's most functional bodies, it meets one month before the Council of Heads of State. The council sets the council's agenda, focuses on international issues, and determines the organization's current activities and the organization of council meetings. The council is chaired by the country's Minister of Foreign Affairs, who hosts the Presidential Council meetings.

The Council of Representatives: It is an important body that attempts to establish the infrastructure for meetings and agreements in which representatives of the member countries participate in areas where they cooperate.

National Coordinators Council: The council, comprised of national coordinators from SCO member countries, meets at least three times a year and directs all other bodies. It coordinates and carries out the organization's current activities.

Secretariat: The Secretariat of the Union is located in Beijing, the capital of China. The Secretariat is the Union's executive body, overseeing Union-related affairs and preparing the necessary documents for all activities. It assists with the organization's legal, technical, and institutional activities. The Secretary-General is nominated by the Council of Foreign Ministers and approved by the Council of Heads of State. According to Russian alphabetical order, he/she may be elected from among citizens of SCO member states for a rotating term of three years without the right to renew.

Regional Counter-Terrorism Agency: The Regional Counter-Terrorism Agency's executive committee is located in Tashkent, the capital of Uzbekistan. Established to combat terrorism, separatism, and extremism, the agency works on issues such as continuing to work with the authorized institutions of member states and international organizations, preparing counter-terrorism studies, conducting search operations at the request of relevant member states, and jointly drafting international legal documents related to the fight against terrorism, separatism, and extremism.

3. Development of Relations between the Shanghai Cooperation Organization and Türkiye

Located at the intersection of Asia and Europe, Türkiye has turned to the West for more than a century to ensure its political and economic development. Furthermore, it has been striving to become a member of the European Union (EU), as it is now known, since 1959. However, the recent stagnation of relations with the EU, the negative statements made by some European officials, and the uncertainty surrounding the future of the relationship with the EU have necessitated Türkiye's consideration and research into alternative integrations, organizations, or collaborations. While the EU remains Türkiye's most important partner economically and politically, it would also be appropriate to consider new foreign policy and strategy options. With its recent development, the SCO has become one of the most prominent among these options (Kartal & Sofyalıoğlu, 2011, p. 24).

Türkiye first applied for membership in the SCO in 2005. However, due to Türkiye's close ties with NATO allies and Western countries, it was rejected due to opposition from the People's Republic of China. Later, in 2011, it applied for "Dialogue Partner" status, and its application was unanimously accepted at the SCO Heads of State Summit in Beijing in 2012. In 2017, Türkiye was granted the rotating presidency of the Shanghai Energy Club, a subordinate organization of the SCO, despite not being a full member (Mere, 2021, p. 82).

Türkiye is one of the key countries holding "dialogue partner" status within the SCO. Due to its geographical location, it plays a key role in the Euro-Atlantic world and Eurasia. This status marked the first step in Türkiye's official cooperation with the SCO. Regarding its foreign policy priorities, Türkiye has pursued a multifaceted and balanced policy among international organizations, striving to diversify its integration activities. The emergence of independent Turkic states following the dissolution of the USSR and the subsequent unification of these states on a common platform made the SCO attractive to Türkiye. Türkiye aims to improve its relations with Eurasian countries and strengthen its position vis-à-vis Western countries. Türkiye has aimed to increase its strategic autonomy by developing diverse political alternatives in its foreign policy, and in this regard, the SCO has been viewed as an important platform (Aksu, 2023, p. 947).

However, there are particular difficulties in Türkiye's full membership in the SCO. These difficulties are as follows (Mere, 2021, p. 83; Saygın & Erdem, 2021, p. 95);

- Although Türkiye's minimal and political support for Azerbaijan in the hot conflict between Azerbaijan and Armenia in 2020 was an important turning point in resolving the South Caucasus issue, the problems with Armenia,

- After the collapse of the Soviet Union, Chechnya's desire to secede from Russia and the problems that arose,

- In China's Xinjiang Autonomous Region, the Uyghurs' desire for independence and the problems experienced,

- If Türkiye becomes a member of the SCO while being a NATO member, there is a possibility that it could be removed from NATO,

- Factors such as Türkiye being a NATO ally and its long-standing close relationship with European Union countries and the United States, which makes it appear on the Western front, concern Russia and China, who are at odds with the West in political and security matters.

There are also certain advantages that Türkiye's membership in the SCO would provide. These advantages are as follows (Mere, 2021, p. 83; Eren, 2017, p. 86-87; Öz & Erasa, 2013, p. 45; Kalaycı, 2016, p. 395-396);

- The SCO has been heavily criticized for being perceived as anti-Western. These critics believe the organization is attempting to maintain a balance with the West. Türkiye, which has historically had

significant relations with the West, could benefit the organization by acting as a mediator if it becomes a member.

- In addition, Türkiye can be a role model in many areas for the Turkic Republics that are members of the organization, with its democratic structure and economic and social policies, and can contribute to institutionalizing the democracies and state structures of these Republics.

- Türkiye's location plays a significant role in energy flow as a bridge between East and West. Türkiye, aiming to become a key energy corridor for global oil and natural gas resources, will be more advantageous in achieving this goal and accessing natural gas, which it primarily uses in its industry.

- China's desire to revive the historic Silk Road to expand its trade potential and Türkiye's geopolitical importance.

- With its membership, Türkiye can elevate its positive relations with Russia and China to more strategic levels.

- Suppose the SCO can unite with Türkiye and create synergy, all tourism branches (health, culture, education, etc.) can develop for the countries in the region. In that case, the direct or indirect investment corridor can be expanded, and ultimately, sustainable regional peace, stability, and prosperity can be achieved.

- The cultural ties between the Central Asian member states of the SCO and Türkiye could accelerate the adaptation process of membership and strengthen Türkiye's position within the union over time.

- Developing relations with countries such as China and India, in particular, can increase the chance of opening up to new markets and our commercial potential by creating new market opportunities.

- Türkiye depends on Russia for its energy resources and projects; Russia is a member of the SCO, not the EU. As a result of its membership, Türkiye can import energy at discounted prices.

- Türkiye can use the political power it will gain from its close relationship with the SCO as a counterweight to Western states and contribute to accelerating its EU membership process.

Table 3 shows Türkiye's exports to SCO countries between 2013 and 2024. It also shows Türkiye's exports during this period and the SCO's share of Türkiye's exports during the specified periods. While export figures may

Table 3. Türkiye's Exports to Shanghai Cooperation Countries (Million $)

Countries	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
China	3.756	2.971	2.501	2.379	3.038	3.079	2.726	2.866	3.663	3.281	3.306	3.388
Russian Federation	7.214	6.170	3.684	1.793	2.870	3.653	4.152	4.507	5.774	9.343	10.907	8.562
Kazakhstan	1.156	1.087	882	714	840	790	900	986	1.288	1.606	2.960	3.316
Kyrgyz Republic	432	468	317	328	379	392	442	418	749	903	1.201	1.380
Tajikistan	309	303	177	161	167	189	157	174	258	389	406	373
Uzbekistan	624	650	518	559	727	1.031	1.232	1.154	1.842	1.878	1.873	2.228
India	616	619	698	692	809	1.182	1.166	890	1.305	1.637	1.644	1.517
Pakistan	385	472	301	374	377	509	550	620	773	819	550	918
Iran Islamic Republic	4.456	4.142	4.115	5.462	3.861	2.766	2.737	2.253	2.771	3.067	3.226	3.231
Belarus	318	285	217	371	439	456	543	603	915	1.126	1.684	1.615
Total	19.266	17.168	13.412	12.833	13.506	14.046	14.606	14.469	19.339	24.048	27.757	26.528
Total Exports in Türkiye	161.481	166.505	150.982	149.247	164.495	177.169	180.833	169.638	225.214	254.170	255.627	261.778
Share of SCO Countries in Türkiye's Exports	11.93	10.31	8.88	8.60	8.21	7.93	8.08	8.53	8.59	9.46	10.86	10.13

Source: This table was prepared by the author of the study using information from the official website of the Turkish Statistical Institute (TSI).

increase or decrease periodically, Türkiye's largest export destination was the Russian Federation. The smallest export destinations were Tajikistan and Pakistan. Türkiye's total exports to SCO countries in 2013 were approximately $19 billion, reaching $26 billion in 2024. The share of SCO countries in Türkiye's total exports was 11.93% in 2013 and 10.13% in 2024. SCO countries account for an average of 10% of Türkiye's exports. SCO countries account for a low share of Türkiye's exports.

Table 4. Türkiye's Imports to Shanghai Cooperation Countries (Million $)

Countries	Years											
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
China	25.261	25.733	25.284	24.852	23.754	21.506	19.128	23.041	32.238	41.355	45.048	44.928
Russian Federation	26.047	25.412	20.744	15.467	20.097	22.711	23.115	17.829	28.959	58.849	45.600	44.018
Kazakhstan	1.758	1.223	1.115	1.132	1.494	1.602	1.404	1.181	1.595	3.515	3.501	3.386
Kyrgyz Republic	107	120	118	132	155	64	77	91	86	120	274	168
Tajikistan	442	240	223	160	224	265	198	149	196	171	123	247
Uzbekistan	853	846	723	723	838	870	1.140	970	1.800	1.683	1.209	1.134
India	6.740	7.196	5.599	5.664	6.116	7.525	6.635	4.830	7.936	10.697	7.932	7.021
Pakistan	435	439	291	274	350	346	306	269	315	432	456	440
Iran Islamic Republic	10.546	10.076	6.162	4.801	7.608	7.041	3.608	1.193	2.824	3.354	2.181	2.454
Belarus	194	148	219	101	184	169	165	176	270	292	244	234
Total	72.382	71.433	60.477	53.307	60.820	62.096	55.778	49.729	76.220	120.467	106.568	104.031
Total Imports in Türkiye	260.823	251.142	213.619	202.189	238.715	231.152	210.345	219.517	271.426	363.711	361.967	344.010
Share of SCO Countries in Türkiye's Imports	27.75	28.44	28.31	26.37	25.48	26.86	26.52	22.65	28.08	33.12	29.44	30.24

Source: This table was prepared by the author of the study using information from the official website of the Turkish Statistical Institute (TSI).

Table 4 shows Türkiye's import figures to SCO countries between 2013 and 2024. It also shows Türkiye's import figures during this period and the SCO's share of Türkiye's imports during the specified periods. While import figures vary periodically, Türkiye's most significant imports were to the Russian Federation and China, both founding members of the organization. The smallest imports were to Tajikistan, Pakistan, and Belarus. Türkiye's total imports to SCO countries were approximately $72 billion in 2013, reaching $104 billion in 2024. The share of SCO countries in Türkiye's total imports was 27.75% in 2013 and 30.24% in 2024. SCO countries account for an average of 30% of Türkiye's imports. The SCO countries carry out approximately one-third of Türkiye's imports from the SCO countries.

4. Factors Leading Türkiye to Seek New Trade Partners and the Shanghai Cooperation Organization

From its founding to the present day, the Türkiye state has maintained close relations with Western countries in numerous areas, from the economy to the legal system, from education to trade. After World War II, it joined many international organizations such as the IMF, NATO, and the World Bank. With the signing of the Ankara Agreement on September 12, 1963, Türkiye's EU accession process, as it is now known, began. However, EU membership has not materialized. At the end of each challenging period in Türkiye-EU relations, an increase in relations with Eastern Bloc countries outside the Western bloc has been observed, particularly in the media and the government.

The unresolved Cyprus issue is one of the biggest obstacles to Türkiye-EU relations. Türkiye's refusal to open its ports and airports to Southern Cyprus ships and aircraft, coupled with the EU's decision not to open eight negotiation chapters and not to close all other chapters, remains in effect. It should also be noted that Ankara severed all political dialogue with the EU from July to December 2012, when Southern Cyprus held the EU presidency. Especially after the 2000s, Türkiye prioritized aspects of Turkish foreign policy beyond the traditional US-NATO-EU dimension, such as Eurasia, the Middle East, the Balkans, Africa, and Latin America. In this context, new embassies and consulates-general have been opened in many countries (Erşen, 2013, p. 18-19). Another issue causing problems in Türkiye-EU relations is visas. While citizens of EU candidate countries are not required to have a visa, this practice against Turkish citizens creates an unfair situation.

Certain negative aspects should not be overlooked when considering

Türkiye's potential for full EU membership. Chief among these is the EU's rejection of Türkiye's candidacy at the Luxembourg Summit 1997. Furthermore, the path was cleared for candidate countries to hold a referendum on Türkiye's accession to the EU in 2005. However, the inclusion of Bulgaria and Romania, countries less economically and legally advanced than Türkiye, in 2007 diminished Türkiye's enthusiasm and motivation for the EU and was met with an adverse reaction. The negative views of EU member states regarding Türkiye's full membership are based on several reasons. These include the fact that Türkiye, due to its large population, will play an active role in the EU's decision-making mechanism; the fact that aid it will receive from EU funds could significantly burden the EU budget; and that religious and cultural differences would create difficulties in the harmonization process. Despite all this, the reasons why the EU has not completely broken away from Türkiye are as follows: Its geopolitical position, acting as a buffer zone between Europe and the Middle East, is believed to contribute to Europe's security. Therefore, Europe, reluctant to pursue full membership, has developed the concept of a privileged partnership as a middle ground. However, as previously mentioned, this vague concept alienates Türkiye from the EU (Saygın & Erdem, 2021, p. 83-86).

Following the failed military coup attempt in July 2016, Türkiye's political standing in European and transatlantic security cooperation plummeted to an all-time low. This resulted in a lack of solidarity and the security-focused policies Türkiye was forced to adopt, which negatively impacted our relations. Türkiye's position within NATO has become increasingly complex. The difficult relations with the Obama administration in the United States (US), particularly following the coup attempt, and the recent disappointment with the Trump administration's "Muslim ban," have further diminished Ankara's appetite for close transatlantic cooperation. NATO members have also become much more distant toward their ally, Türkiye. As a result of increasingly volatile relations with the EU and NATO, the Turkish government has begun to consider alternatives to security cooperation seriously. Given the limited options, Türkiye has turned to Eurasian security integration, particularly the SCO, which was established in 2001 and co-chaired by China and Russia since then. It became a "dialogue partner" of the SCO in 2012 (Huotari & Eder, 2017, p. 1-2).

The fact that China alone hosts one-fifth of the world's population demonstrates that, with the inclusion of large-populated countries like India, the SCO will not face labor shortages like the EU in the long term, and therefore its economy will grow steadily. China's favorable,

cooperative policies in Central Asia further develop and strengthen the SCO institutionally. China's population, economy, technology, Russia's energy resources, and its global presence in space technology and weapons production are at least as significant as those of the US, further enhancing its importance (Saygın & Erdem, 2021, p. 90-91).

Recent developments, such as the global COVID-19 pandemic, the Ukraine-Russia war, and the China-Taiwan tensions, have made Western Bloc countries, particularly the US and the EU, question their trade relations with China. Western countries have begun considering shifting their investments from China to alternative countries, particularly India, Vietnam, and Indonesia, and have aimed to create alternative trade corridors (Mere, 2024, p. 225).

The India-Middle East-Europe Economic Corridor (IMEC) was announced at a meeting co-chaired by the US and India during the G20 summit held in New Delhi, India, in September 2023. The memorandum of understanding was signed by several members, including India, the US, Saudi Arabia, the United Arab Emirates (UAE), the European Union (EU), Italy, France, and Germany. The proposed economic corridor is envisioned to foster economic growth and development by connecting three regions: Asia, the Arabian Gulf, and Europe (Bahht & Roychoudhury, 2023, p. 3). In fact, the US aims to create an alternative trade corridor to the Belt and Road Initiative by drawing India to its side against China's rise, which has recently become a rising star (Özalp, 2024, p. 34). The IMEC project aims to bring the US and EU countries closer to India and reduce Chinese influence. On the other hand, India hopes that establishing a trade corridor will support its strategy of breaking free from China's siege and gaining prominence among developing countries (Rizzi, 2024, p. 1).

Figure 1. India-Middle East-Europe Economic Corridor (IMEC)
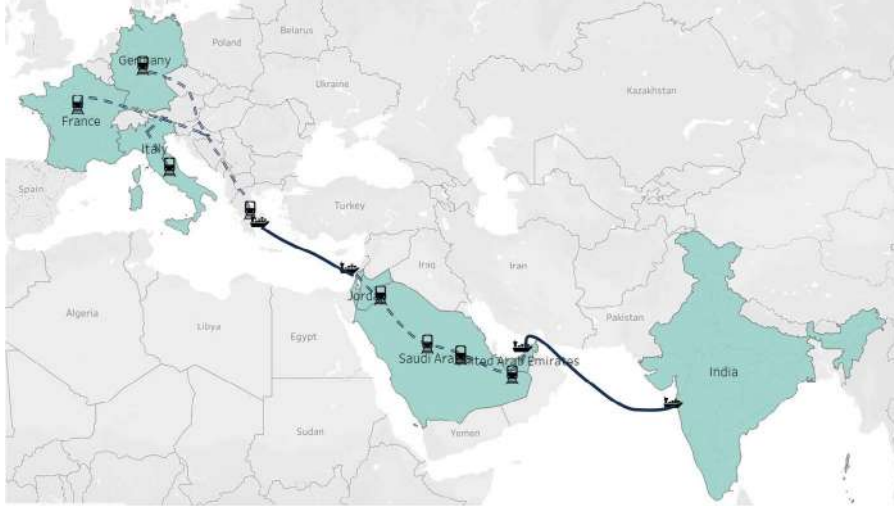
Source: Bahht & Roychoudhury, (2023:3).

As shown in Figure 1, India is the starting point for implementing the trade corridor. The aim is to connect the UAE, Saudi Arabia, Jordan, and Israel by road and rail, and transport the goods that have already reached Israel back to Greece via sea from Israeli ports to the EU market. This trade corridor, which some EU countries, led by Türkiye's ally, the US, Italy, Germany, and France, are seeking to limit China, also excludes and bypasses Türkiye. However, China's New Silk Road Project, announced in 2013 to revitalize the historic Silk Road, is likely to directly or indirectly impact many countries, including Türkiye. The third train line, which passes through Türkiye, became operational in December 2015. This line begins in Lianyungang, a port city in northeastern China, and extends to Türkiye via Kazakhstan, Azerbaijan, and Georgia (Sayar, 2023, p. 325). These trains, coming from Asia (Baku-Tiflis-Kars line), enter Turkish territory via the Caucasus route and provide access to other railway connections of the Marmaray Line, making it possible to access European railways (Ece, 2023, p. 40). All these developments have led Türkiye to new alternatives and formations and brought it closer to the SCO.

Conclusion and Evaluation

Türkiye's geopolitical location occupies a key position at the heart of a region extending from the Middle East and the Caspian Basin, home to significant oil reserves; the Mediterranean Basin, a hub of maritime routes; the Black Sea Basin and the Turkish Straits; and the Balkans to the Caucasus and Central Asia. Furthermore, its cultural ties with the Balkan countries

and location on a key route for Central Asia and the Caucasus' natural gas and oil to reach Western countries are key factors that enhance Türkiye's geostrategic importance (Çatal, 2019, p. 103; Yaşar and Korkmaz, 2017, p. 384). When this geopolitical advantage is combined with its superiority in the region, both in terms of numerical and skilled human resources, as well as economic and military power, it is conceivable that Türkiye could become a regional power. Even considering this information, it is clear that Türkiye is located in a significant and problematic region (Ongan, 2021, p. 264).

China's planned New Silk Road Project is one of the 21st century's most significant initiatives. Central Asia is one of the most important routes in this historic initiative, which connects the Far East, Central Asia, North Africa, and Europe. The disruption of the China-Mongolia-Russia-Europe trade route due to the Russia-Ukraine war and the United States' presence in Southeast Asia and the South China Sea has led China to view Central Asia as its gateway to the world (Şener & Sugözü, 2022, p. 1). This proposed project is expected to directly or indirectly impact many countries, including Türkiye (Zorbay, 2019, p. 57).

The collapse of the Soviet Union and the independence of the Turkic Republics have led to an increase in Türkiye's interest in regional countries. To leverage its relations with regional countries more effectively, developing multifaceted policies that are consistent, vision-based, and aligned with the region's political, historical, and cultural structures would be appropriate. Türkiye's historical, cultural, and genetic ties with regional countries have made SCO membership attractive. However, Türkiye's long-standing historical, political, and economic relationship with the West and its negotiations with the EU and NATO membership could pose challenges to SCO membership. Furthermore, Türkiye's shift toward a Eurasian alternative to the EU and NATO could lead to a significant disruption in its relations with these organizations. However, the SCO's natural resources, economic, political, and military power, Türkiye's geopolitical position, and recent success, particularly in the defense industry, create a mutually beneficial relationship. On the other hand, the European Union's impositions on Türkiye, particularly on human rights and the rule of law, as well as on occasional issues such as the alleged Armenian genocide, the Cyprus issue, ethnic issues, and the fight against terrorism, have led Türkiye to approach EU membership with greater caution. Furthermore, this political deadlock has brought to light the inherent cultural, ethnic, religious, and lifestyle differences between Türkiye and the European Union (Eren, 2017, p. 86).

The inadequate and biased stance of the United Nations (UN) in

addressing global security challenges, particularly in the face of recent global events, coupled with the inability of international organizations such as the World Bank and the International Monetary Fund (IMF) to provide effective and lasting solutions to economic crises, has paved the way for a global governance vacuum, necessitating the need for new initiatives. In light of all these developments, the challenging geopolitical situation in our region, the instability in border countries, and the conflicts in the region have made it inevitable for Türkiye to form partnerships with other countries. Recent problems with Western bloc countries have led Türkiye to seek new trade partners. From this perspective, the recent rapprochement with the SCO has resonated strongly with global public opinion. Türkiye's potential SCO membership is not perceived globally, nor in our country, as an opposition to the EU and NATO, and if this partnership can be maintained together, Türkiye will be able to attain a stronger strategic position.

In short, given its geopolitical position, Türkiye can neither turn its back on the West nor ignore the recently rising and rising stars of the Eastern economies. Türkiye's geographical location and economic interests make choosing between the West and the Eastern Bloc unwise. The realistic path for Türkiye is to maintain a balanced economic partnership with the West and the East (Mere, 2024, p. 266). It would be appropriate to evaluate Türkiye's interest in the Shanghai Cooperation Organization not only as a reflex towards opening up to the East, but also as a reflection of dissatisfaction with the Western system.

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Editors:
Asst. Prof. Dr. İsmail ÇİFÇİ
Asst. Prof. Dr. Rabia İnci ÖZBEK ÇİFÇİ