

## Assessing the Effects of Political Risks on Türkiye's Trade between 1923 and 1950

*İsmail ALTAY* (<https://orcid.org/0000-0002-6304-8218>), Recep Tayyip Erdoğan University, Türkiye;  
[ismail.altay@erdogan.edu.tr](mailto:ismail.altay@erdogan.edu.tr)

*Özgül BİLİCİ* (<https://orcid.org/0000-0002-5311-8681>), Recep Tayyip Erdoğan University, Türkiye;  
[ozgul.bilici@erdogan.edu.tr](mailto:ozgul.bilici@erdogan.edu.tr)

*Emel PARLAR-DAL* (<https://orcid.org/0000-0001-6508-6069>), Marmara University, Türkiye;  
[emel.parlar@marmara.edu.tr](mailto:emel.parlar@marmara.edu.tr)

### Politik Risklerin Türkiye'nin Ticareti Üzerindeki Etkilerinin Değerlendirilmesi: 1923-1950

#### Abstract

This paper aims to investigate the political determinants of Türkiye's exports and imports during the early years of the Republican era. Using an augmented gravity model, we analyse how political risk factors influenced Türkiye's trade. To achieve this, we utilise annual trade data for 14 of Türkiye's trading partners from 1923 to 1950. The findings reveal that, unlike tensions in Türkiye's bilateral relations with its trading partners, the geopolitical risks have a significantly negative impact on Türkiye's exports and imports. This suggests that heightened political risk stemming from global events had a detrimental effect on Türkiye's trade during this period, whereas the tensions in its bilateral relations did not affect foreign trade, thanks to the country's focus on security and economic development.

**Keywords** : Conflict, International Trade, Geopolitical Risk, GPR Index, Gravity Equation.

**JEL Classification Codes** : F10, F14, N14, N44.

#### Öz

Bu çalışmanın amacı, Cumhuriyet döneminin ilk yıllarında Türkiye'nin ihracat ve ithalatının politik belirleyicilerini incelemektir. Genişletilmiş çekim modeli kullanılarak, politik risk ile ilişkili siyasi faktörlerin Türkiye'nin ticaretini nasıl etkilediği analiz edilmiştir. Bunun için Türkiye'nin 14 ticaret ortağının 1923'ten 1950'ye kadar olan yıllık ticaret verileri kullanılmıştır. Elde edilen bulgular, Türkiye'nin ticaret ortaklarıyla ikili ilişkilerindeki gerilimlerin aksine, jeopolitik risklerin Türkiye'nin ihracatı ve ithalatı üzerinde önemli ölçüde olumsuz bir etkiye sahip olduğunu ortaya koymaktadır. Bu durum, küresel olaylardan kaynaklanan artan politik riskin bu dönemde Türkiye'nin ticareti üzerinde negatif bir etkiye sahip olduğunu göstermektedir. Bununla birlikte, Türkiye'nin bu dönemde güvenlik ve ekonomik kalkınmaya odaklanan politikalar izleyerek gerginliklerden kaçınmasıyla ikili ilişkilerdeki gerginliklerin dış ticaret üzerinde etkili olmadığı söylenebilir.

**Anahtar Sözcükler** : Çatışma, Uluslararası Ticaret, Jeopolitik Risk, Jeopolitik Risk İndeksi, Çekim Modeli.

## 1. Introduction

Although economic considerations predominantly influence trade between countries, political risks also significantly affect trade, particularly when it is crucial to a country's economy. Political factors encompass a wide range of aspects, including diplomatic relations and conflicts. Several empirical studies have investigated how political factors affect bilateral trade, using a wide range of variables, including similarities in political systems and foreign policy, political relations, shared democracy, regime type, alliances between countries, intra- and inter-state conflicts (armed or unarmed), and wars. Among these factors, the effects of conflicts and wars have been examined in many studies. However, there are mixed findings about their effects on international trade. For example, Long (2008) and Hegre et al. (2010) proved that military conflicts had adverse effects on bilateral trade, whereas Reuveny and Kang (1998), Anderton and Carter (2001) and Du et al. (2017) showed that the direction and size of the effects depend on the commodity traded, the economic size of the trading partners and the duration of the conflict.

Recently, the geopolitical risk index (GPR) developed by Caldara and Iacoviello (2022) has also been utilised in research, alongside the aforementioned political factors that pose risks to bilateral trade. The index considers a wide range of political events, from wars and terrorist attacks to nuclear threats. It offers a more complete perspective because it accounts for changes in the definition of political risks and the globalisation of risks. There is a growing body of research that has utilised the GPR index as a proxy for political risk to examine its influence on various economic variables, such as stock and oil prices (Apergis et al., 2018; Zhang et al., 2022). Caldara and Iacoviello (2022), Gupta et al. (2019), Singh et al. (2024), and Pyo (2021) used it to analyse its impact on international trade. The first three studies confirmed negative effects, whereas the latter found that the GPR had no significant impact on trade.

Several studies have investigated the determinants of Türkiye's exports and imports. These studies primarily focus on economic factors, examining the impact of economic integrations such as the Customs Union and/or European Union membership (Antonucci & Manzocchi, 2006; Bilici et al., 2011; Frede & Yetkiner, 2017; Karacan & Korkmaz, 2022)<sup>1</sup>. Nevertheless, there is a lack of studies examining the effects of political factors. Specifically, the determinants of the country's trade during its early years remain largely unexplored. Since the establishment of Türkiye as a republic coincided with two major global events, World War II (WWII) and the Great Depression, its foreign policy, as well as its internal economic and political environment, has been significantly influenced by these events.

---

<sup>1</sup> Antonucci and Manzocchi (2006) and Bilici et al. (2011) analyse the impacts of the Customs Union and/or EU membership on Türkiye's exports and imports, while Frede and Yetkiner (2017) explore a range of regional trade agreements. In addition to studying the effects of the Customs Union and/or EU membership, Karacan and Korkmaz (2022) investigate the impact of the 2001 financial crisis. All these studies suggest that the gravity model provides a good fit for Türkiye's trade patterns, although they present mixed results regarding the effects of trade agreements.

To this end, this paper investigates the economic and political determinants of Türkiye's exports and imports in the early years of its existence as a Republic. We examine the determinants of Türkiye's exports and imports by augmenting the gravity equation with two variables that represent political risk, using annual trade data for 14 trading partners from 1923 to 1950. The first one is the GPR index proposed by Caldara and Iacoviello (2022), while the second is a dummy variable that proxies bilateral tensions between Türkiye and its trading partners. We identify these bilateral tensions during the period in question mainly drawing on the works of Oran (2018) and Sönmezoğlu (2015). The findings show that Türkiye's trade in its early years was primarily influenced by GPR, rather than by tensions in its bilateral relations. This suggests that while the rise in political risk from global events negatively impacted Türkiye's exports and imports at the time, tensions in Türkiye's bilateral relations did not affect its foreign trade, owing to the country's focus on security and economic development.

This study makes several notable contributions. First, while the influence of GPR on global trade is well established, research on individual countries remains limited. This study aims to address this gap by providing evidence on the effects of GPR on Türkiye's trade flows. To the best of our knowledge, it is the first to apply the GPR index in this context. Second, although some studies have examined the effect of political risks on Türkiye's trade, none have focused on the early years of the Republic, a period largely shaped by global events. The aftermath of these events heightened the vulnerability of the newly established country and influenced its responses to potential tensions with trading partners. Finally, while numerous studies have analysed the impact of conflicts and wars, they mostly focus on multilateral trade or trade between major powers. In contrast, our study examines the bilateral trade of a neutral, non-major power, offering potential contributions to the existing literature, which presents mixed findings on the effects of political factors on the trade of neutral countries.

The remainder of this paper is organised as follows. A review of the empirical literature that focuses on the effects of political factors on international trade is presented in Section 2. Section 3 outlines Türkiye's trade policy in the context of global developments during the period 1923-1950. Examples of bilateral tensions with trade partners and economic and trade policies adopted in response to different situations are provided in Section 4. Section 5 details the data and model used, whilst Section 6 presents the estimation results and evaluations. Finally, Section 7 offers concluding remarks.

## **2. Political Risks and Trade Linkage: A Literature Review**

International trade has traditionally been analysed from the perspective of economic determinants, with a significant body of literature focusing on factors such as comparative advantage, resource endowments, and market dynamics. While these *de facto* economic elements remain critical, there is a growing recognition of the role political factors play in shaping trade flows. Various variables have been used to examine the influence of political and security factors on bilateral trade, including diplomatic relations, conflicts, similarities

in political systems, foreign policy alignment, political relations, joint democracy, regime types, alliances, and adversaries<sup>2</sup>. Recent global developments, such as sanctions, Brexit, and the United States (US)-China trade war, have further spurred studies on the impact of these events as indicators of political risk in international trade<sup>3</sup>.

Many studies have used conflicts, both internal and international, armed and unarmed, as well as cooperation, to examine the role of political factors in shaping bilateral trade. One of the leading works by Pollins (1989a) uses the import demand function to investigate the impact of bilateral diplomatic relations on the imports of 6 countries from 24 trading partners. He runs individual regressions for each country and constructs the diplomatic cooperation indicator based on diplomatic events. The results show that imports between dyads increase as the diplomatic cooperation indicator rises. Pollins (1989b) supports this finding using the gravity framework.

Using a measure of conflict and cooperation based on daily events, Reuveny and Kang (1998) investigate the Granger causality between political conflict and trade. They focus on 16 dyads and 10 commodity groups from the 1960s to the 1990s. They find strong relations between conflict and bilateral trade. However, the direction and strength of this relationship between dyads and commodity groups are unclear. Particularly in strategic commodity groups such as iron and steel, fuels, minerals and basic manufacturers, the direction of causality goes from conflict to trade. However, the relationship between conflict and trade is independent of whether or not two countries are political rivals.

As an intense and violent form of armed conflict, war is another political factor that plays a determining role in international trade. Barbieri and Levy (1999) focus on trade

---

<sup>2</sup> Other political factors, as sources of political risk, have been employed as determinants of international trade: political system and foreign policy similarity (Dixon & Moon, 1993), joint democracy (Morrow et al., 1998), alliances (Mansfield & Gowa, 1994; Gowa & Mansfield, 1993; Mansfield et al., 2000; Bliss & Russett, 1998; Long, 2003), and trade blocs (Gowa & Hicks, 2013; Jacks & Novy, 2020). The findings on the effects of these variables differ depending on the chosen method, time period, and variable definitions. Within the framework of this study, we focus on the literature that considers conflict and/or cooperation as proxies for political risk.

<sup>3</sup> With the emergence of recent developments, a new strand of literature has investigated the effects of political events such as Brexit, the US-China trade war, and the sanctions following Russia's invasion of Ukraine. Felbermayr et al. (2022) and De Lucio et al. (2024) examine the effects of Brexit on UK trade and Spanish firms, respectively. The former finds that EU membership enhances trade for both the UK and the EU, while the latter identifies negative impacts of Brexit on Spanish exports and imports. Benguria and Saffie (2019) and Fajgelbaum et al. (2020) demonstrate the trade-reducing impact of the US-China trade war, while Tu et al. (2020) model the declines in both US imports from China and Chinese imports from the US due to the trade war. Jiao et al. (2024) find that exports from Chinese firms to the US declined substantially, whereas their exports to the EU increased moderately (See Fajgelbaum & Khandelwal, 2022, for a detailed discussion of the US-China trade war). In addition to these, several studies have also explored the impact of political interventions, such as CIA covert actions and international sanctions, on trade. Felbermayr et al. (2020) identify the negative effects of sanctions imposed on Iran, while Nguyen and Do (2021) examine the impact of Western sanctions on Russia's exports and Russia's counter-sanctions on its imports, finding declines in both export and import values. Afesorgbor (2019) examines the impact of threatened versus imposed sanctions on international trade, finding that while imposed sanctions reduce trade flow, threatened sanctions increase it. Finally, Berger et al. (2013) show that US exports to the intervening countries increased following the CIA interventions.

among seven dyads that also experienced wars during the period under consideration (1870-1992). They find that wars lead to a temporary decline in dyadic trade. However, in most instances, war has no permanent long-term effect on trade. Anderton and Carter (2001) assess this result and provide strong evidence that war is associated with a decline in trade between major-power dyads. Although the effect is weaker, this outcome is valid for non-major power dyads as well. Using an annual dataset covering many countries over the period 1870-1997, Glick and Taylor (2010) estimate the effects of both the First World War (WWI) and WWII on trade. They find that the trade disruptions caused by the wars affected not only the belligerents but also the neutrals. Gholz and Press (2001) is among the earliest studies to highlight that war can have positive effects on trade, particularly through trade diversion benefiting neutral countries, while Levy and Barbieri (2004) argue that substantial evidence shows trade between adversaries often continues despite wars. Using high-dimensional fixed-effects models, Gowa and Hicks (2015) show that WWI promoted trade among allies, hindered trade between adversaries, and enhanced trade with neutrals. Hedberg and Karlsson (2015) is another study that examines the effects of wars such as the Crimean War, the Franco-Prussian War, WWI, and WWII on a neutral country. By analysing Swedish trade data from 1838 to 1960, they suggest that neutral countries with access to open trade channels were able to sustain or even grow their trade, despite the decline in global trade during wartime. Using recent developments in the empirical gravity literature and a large number of observations from the relatively peaceful period (1830-1913), Karlsson and Hedberg (2021) also show that trade between belligerent and neutral countries was either unaffected or even increased during wars, despite the trade-reducing effects of wars on belligerents.

Simmons (2005) separates territorial conflict from armed conflict to show that even in the absence of military conflict, institutional border disputes decrease trade between partners. Using the Prais-Winston GLS method to estimate the gravity equation, Long (2008) shows that both domestic and interstate conflicts negatively affect bilateral trade. Along with standard gravity variables, the foreign policy similarity index and dummies for joint democracy and being allies are included in the regressions. This finding was supported by Hegre et al. (2010), who simultaneously estimate the reciprocal effects of trade and conflict. However, Li and Sacko (2002) show that the probability, severity, and duration of a conflict affect its impact on trade. Accordingly, for example, if the probability of a conflict is high, then a decline in trade would occur before the outbreak of that conflict. On the other hand, a conflict would reduce trade only if it is unexpected.

More recently, Che et al. (2015) and Du et al. (2017) have explored the impact of political factors on China's trade. The former shows that the Japanese invasion of China from 1937 to 1945 still has a detrimental impact on Chinese trade. The latter investigates the impact of political relations on trade between China and its major trading partners. They employ the political relations index (PRI) to this end. The index was developed based on political events reported in newspapers. These include diplomatic events, military conflicts, and protests against foreign countries. They argue that using aggregated data would cause bias because the effects of political shocks are short-lived. Therefore, they utilise monthly

data to analyse the impact of PRI on trade using the gravity framework. The results show that the adverse impact of political shocks vanishes after the third month.

While various studies have employed different proxies to represent political factors, the GPR index, introduced by Caldara and Iacoviello (2022), has recently emerged as a proxy for political risks. The index has been used to analyse its impact on a range of economic variables, including stock prices, oil prices, financial and non-financial investments, employment, and bilateral trade. The index considers a wide range of political events, from wars and terrorist attacks to nuclear threats. It provides a more comprehensive perspective by incorporating changes in the definition of political risks as well as the globalisation of those risks. Caldara and Iacoviello (2022) show that the GPR had a negative impact on the US's gross trade. Using bilateral trade data for 18 countries with 164 trading partners, Gupta et al. (2019) find that country-level GPR has a decreasing effect on foreign trade. Conversely, Pyo's (2021) study analysing the effects of GPR on macro variables such as employment and industrial production, finds that GPR did not have a significant effect on South Korea's foreign trade. Two further studies have been conducted in South Korea, utilising monthly data on exports and imports over the same period (1991-2020). Jin and Shin (2022) demonstrate that an increase in geopolitical risk led to a decrease in Korea's international trade, with the negative impact stronger on exports. Furthermore, these effects vary by trading partner. In the subsequent analysis, Kim and Jin (2023) produce similar outcomes. However, they found that the impact of GPR was stronger for imports. Finally, considering seven Latin American countries, Singh et al. (2024) employ the gravity model to investigate the effects of GPR on trade in the region. By comparing the effects of GPRs from China, the US, and Latin American countries, they identify a detrimental impact of GPR on trade.

Of the abovementioned studies, only Reuveny and Kang (1998) and Barbieri and Levy (1999) addressed the impact of political factors on Türkiye's bilateral trade. The former investigates the effect in question on trade between Türkiye and Greece during 1962-1991. They conclude that among the conflicts in this dyad, only the Cyprus Peace Operation exhibited reciprocal causality between conflict and trade. The latter uses annual data for the periods 1886-1911 and 1960-1992 for Türkiye (Ottoman)-Greece and Cyprus-Türkiye, respectively, to explore the impact of certain conflicts between these dyads on trade. Although the impact was negative, trade between these dyads increased immediately after the conflicts.

Apart from Reuveny and Kang (1998) and Barbieri and Levy (1999), to the best of our knowledge, only one relatively recent study has examined the effect of political risks on Türkiye's trade. Bilgin et al. (2018) investigate the effect of different definitions of political risks on Türkiye's exports to Islamic countries. They demonstrate that the political instability within these importing partners is inversely correlated with Turkish exports. However, our analyses differ from the aforementioned study in both the political risk indicator used and the specific time frame examined. In particular, the effect of the GPR index on Türkiye's bilateral trade has not previously been investigated. Therefore, this study is the first to fill

this gap in the literature. Moreover, although many studies have analysed the impact of various political factors on international trade, most focus on multilateral trade and trade between major powers at the time. The countries chosen in these studies were mostly those involved in the wars/conflicts in question. The studies' focus on the effects of political factors on the trade of non-belligerent countries is limited and yields mixed findings. Thus, we contribute to this strand by considering a newly established country which was a non-belligerent state during WWII.

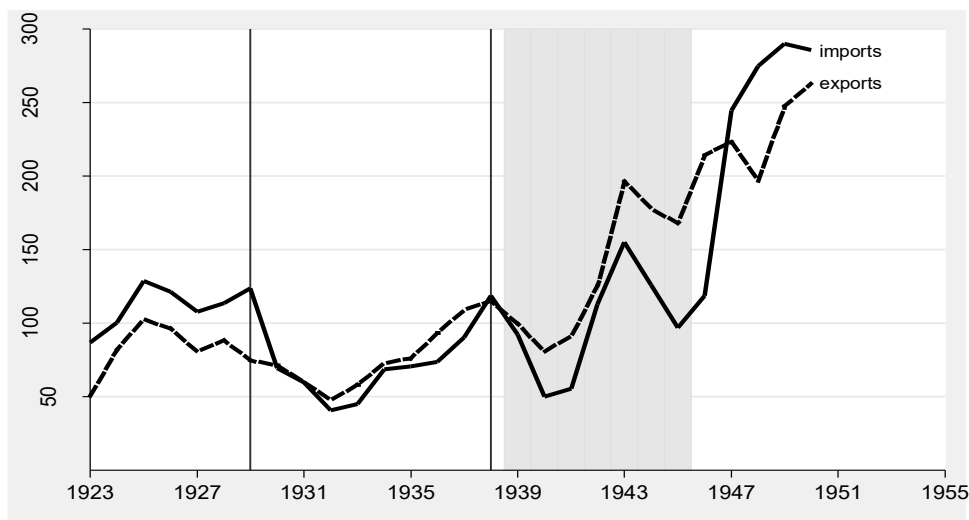
### **3. Türkiye's Foreign Trade Policy between 1923 and 1950**

In the 19<sup>th</sup> century, the Ottoman Empire's agriculture-based economy was open to foreign investment and trade. However, during the interwar years, protectionism and interventionism gained prominence. After the Republic of Türkiye's founding in 1923, Ankara adopted autonomous economic policies shaped by the unique geopolitical conditions of the interwar period, emphasising protectionism and industrialisation from the Great Depression to WWII (Pamuk, 2018: 157).

In accordance with Pamuk (2018), we analyse Turkish trade policy from 1923 to 1950 in three sub-periods: 1923-1929, marked by limited state intervention and tariff restrictions under the Treaty of Lausanne; 1930-1938, dominated by interventionism and protectionism; and 1939-1950, characterised by postwar recovery and improved economic ties with the West. Fig. 1 illustrates Türkiye's exports and imports from 1923 to 1950, with key sub-periods marked by vertical lines and the wartime period shaded. Under the Treaty of Lausanne, ratified in 1923, Türkiye committed to reducing tariff rates for signatory nations and maintaining existing rates for five years (Alkin, 1983: 5). As a result, the volume of total trade initially increased at the beginning of the first sub-period (1923-1929). However, from 1924 to 1929, a designated import tax was introduced, amounting to five times the 1916 tax value for certain goods, nine times for others, and twelve times for goods intended for protection (Tezel, 2015: 190-191). This led to a decline in total trade.

As shown in Fig. 1, Türkiye also faced a current account deficit during the first sub-period (1923-1929), with imports (mainly consumer goods) exceeding exports (primarily agricultural products). These deficits, driven by the removal of import restrictions and reduced tariffs following the war, were financed by gold and other reserves, leading to the depreciation of the lira (Alkin, 1983: 6). During this time, the lira's value relative to foreign currencies was determined by private market transactions, and the government lacked sufficient reserves and institutional mechanisms to stabilise it. Consequently, the lira depreciated against the pound sterling and the dollar from 1925 to 1928 (Tezel, 2015: 202). Additionally, the Treaty of Lausanne restricted Türkiye's ability to implement protectionist trade policies or adjust customs tariffs until 1929, resulting in a persistent foreign trade imbalance throughout the 1920s.

**Figure: 1**  
**Exports and Imports (Million US Dollars) 1923-1950**



*Note: The figure illustrates Türkiye's exports and imports between 1923 and 1950. The dashed line shows exports, while the solid line represents imports. Vertical lines mark the period of the Great Depression (1929-1939), while a grey-shaded area highlights the WWII era (1939-1945). Source: Turkish Statistical Institute, Statistical Indicators 1923-2013.*

In contrast to the era spanning from 1923 to 1929, the period from 1930 to 1938 was characterised by an increased emphasis on interventionist and protectionist policies. Following the Great Depression, the government adopted protectionist economic policies and strengthened its authority over foreign trade and exchange rate management (Pamuk, 2018: 174). The recession resulting from the crisis, combined with the contractionary monetary and fiscal policies adopted by the government, led to a decline in both exports and imports, as shown in Fig. 1 (Yay, 1998: 315-306).

In the 1930s, the government implemented a novel economic program to accelerate industrialisation within its protectionist framework. The government introduced new measures, including exchange controls, bilateral trade agreements, and import restrictions, to better align industrialisation policy with international trade policy. Türkiye's interventionist foreign trade policies were also influenced by the international context, where various countries adopted similar measures. Furthermore, maintaining the value of the Turkish lira was a key objective in implementing these policies. The need to protect the lira's value drove the decision to reduce the trade deficit, which, in turn, influenced the pursuit of import-substitution industrialisation (Tezel, 2015: 197-198).

Following the global economic downturn, the government launched new trade policies (Alkin, 1983: 6). The implementation of the new customs regime began in October 1929, resulting in a significant increase in the average tariffs on imported products from



13% to 46% (Pamuk, 2018: 174; Tezel, 2015: 180-181). These protectionist policies led to a consistent current account surplus from 1930 to 1946, except for 1938, as shown in Fig. 1.

Furthermore, the legislation enacted in 1932 to establish clearing commissions regulated foreign trade relations. As a result, the clearing system became predominant in Türkiye's foreign trade in the second sub-period. Türkiye was compelled to build such a system due to the methods employed by its trading partners. The payment difficulties induced by the Great Depression in 1929 were the primary reason for establishing structures to regulate and oversee international economic transactions (Alkin, 1983: 12). In 1933, Türkiye began signing bilateral trade agreements with countries crucial to its foreign trade. Additionally, starting in 1932, quotas and controls on foreign-exchange allocation were imposed on a significant share of imports (Tezel, 2015: 200). In early 1937, Türkiye established clearing and similar agreements with 23 countries (Tekeli & İlkin, 2016: 212).

The years 1939-1950 can be characterised as a period when the war caused substantial damage to the economy, followed by an improvement in economic relations with the West, which significantly influenced foreign trade policy. Although the country maintained its non-belligerent status, its economy was significantly affected by WWII (Pamuk, 2018: 181). Exports and imports declined at the onset of the war (Fig. 1).

During the third sub-period, the premium exchange rate system was implemented alongside the clearing system in foreign trade. In addition to the officially established exchange rate, a premium bartered exchange rate also emerged. This caused importers to acquire foreign currency at a rate exceeding the official price, with the difference between the official rate and the rate applied to importers given to exporters as a premium. This system was primarily introduced because export prices were above global levels. The government officially announced these premiums in 1939. Moreover, the official exchange rate was lower than the black-market rate (Tekeli & İlkin, 2016: 77-78). Thus, the lack of an increase in exports, despite the depreciation of the lira, can be attributed to high inflation and the maintenance of fixed exchange rates. The substantial increase in inflation, particularly during the wartime period, posed a risk that export goods would remain unsold. To address this issue, the lira was devalued in 1946 (Köklü, 1947: 82). However, the devaluation of the lira was insufficient to ensure a favourable exchange rate-export relationship.

Except for the last three years, there was a trade surplus during this sub-period, as shown in Fig. 1. Consequently, the Central Bank's gold stocks increased continuously (Tekeli & İlkin, 2016: 218). During the war, Türkiye encountered difficulties in international trade, including issues with payments, transportation, and government intervention. Nonetheless, the country saw a rise in trade volume compared with previous years, resulting in a foreign trade surplus. Price differences between exported and imported goods can mainly explain the surplus. During this period, the prices of the former increased threefold compared with those of the latter (Alkin, 1983: 9; Tekeli & İlkin, 2016: 218).

#### 4. Bilateral Political Relations and Trade

During the War of Independence, the borders of the National Pact, which was the main target, were largely achieved, and the Treaty of Lausanne recognised them. After Türkiye was established in 1923, the government aimed to preserve the status quo in foreign policy. During this period, a prudent and peaceful foreign policy was pursued. To this end, Ankara, on the one hand, sought to exploit the rivalry between the Western states and the Soviet Union. On the other hand, it tried to use the status quo-revisionist alignment of the Western powers to further its own interests (Sönmezoğlu, 2015: 254-255).

To establish the link between political relations and international trade within the period in question, it is useful to focus on the assessment of the most important partners. From 1924 to 1929, Italy, the US, Germany, and France were the four countries that received the largest proportion of Türkiye's exports. During the same period, Italy, the UK, Germany, and France ranked as the top four countries by their share of imports (Tezel, 2015: 196). Thus, it is evident that Italy was the most important partner for both exports and imports during this period. However, following Italy's invasion of Abyssinia in 1935, relations between Türkiye and Italy deteriorated. In 1935, the League of Nations decided to impose economic sanctions on Italy. Türkiye adhered to this decision. The political tension between the two countries adversely affected foreign trade. Following this event, Italy's share of Türkiye's international trade declined. Its export share decreased from 11% in 1934 to 10% in 1935 and to 4% in 1936. The proportion of its imports declined from 9% in 1934 to 6% in 1935 and fell further to 2% in 1936 (Mengeş, 2018: 147).

In the 1930s, Germany established dependency by selling manufactured goods to countries from which it bought agricultural products and raw materials. It also increased its trading volume by using the clearing system. Germany played a prominent role in the foreign trade of the Balkan countries, including Türkiye, mainly due to this policy. In 1936, Germany accounted for 51% of Türkiye's exports and 45% of Türkiye's imports (Tekeli & İlkin, 2016: 213-215). However, by the late 1930s, Türkiye's political and military alignment had shifted towards the UK rather than Italy and Germany, who were gaining a significant share of the country's foreign trade (Sönmezoğlu, 2015: 53).

Nonetheless, the onset of WWII brought about significant changes in both the political and economic realms. Türkiye maintained a policy of neutrality throughout WWII and refrained from engaging in any military confrontations. Despite its non-belligerent status, Türkiye supported its military force to defend and protect its home territory against a possible invasion by belligerent countries (Aydın, 2021: 1). When Türkiye was unable to renew its non-aggression pact with the Soviet Union in 1939, it signed the Treaty of Mutual Assistance with the UK and France on 19 October 1939. Germany terminated the German-Turkish Credit Agreement, signed in January 1939, in response to this action. Türkiye reacted by cancelling the Turkish-German Trade Agreements. Due to these political developments, Germany's share of both exports and imports declined. In June 1941, another significant diplomatic event occurred amid the ongoing war between these two nations: the

signing of the Turkish-German Non-Aggression Pact. In October 1941, this event resulted in the re-establishment of bilateral trade agreements. Consequently, Germany regained its position as Türkiye's primary trading partner until 1944, when diplomatic ties with Germany were cut again (Tezel, 2015: 217-218).

The UK made multiple efforts to impede Germany's dominance over Türkiye's foreign trade. To achieve this, it facilitated the construction of the Karabük Iron and Steel Factory in 1936 and signed an agreement with the UK to supply loans. This led to noticeable growth in trade between these dyads since then. Following the signing of the alliance pact with the UK in 1939, a trade payment agreement was signed in 1940 and enforced throughout the war (Tekeli & İlkin, 2016: 213-215).

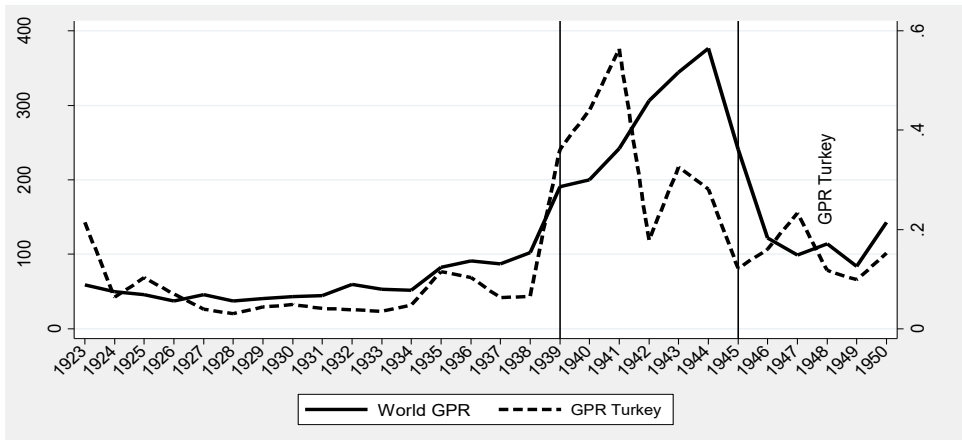
Chromium also played a significant role in shaping Türkiye's political alliances with both the Axis and the Allied powers during the war. The Allies made various attempts to prevent Germany from purchasing chrome ore from Türkiye throughout 1939. Following the 1939 Turkish-British Declaration, trade relations with Germany were severely disrupted. As a result, the UK obtained the exclusive privilege to purchase Turkish chromium, thus establishing a monopoly within the industry. Nevertheless, as a result of the Turkish-German Non-Aggression Pact signed in 1941, the UK's exclusive privilege was revoked, and Türkiye was permitted to sell certain quantities of chrome ore to Germany in 1943 and 1944. However, as the Allies gained an advantage in the war and mounting pressure to cease selling chrome to Germany grew, Türkiye halted its chrome exports to Germany on 21 April 1944 (Önsoy, 2012: 93-120; Karakaş, 2010: 447-482; İnanç, 2006: 908). In return, the Allies promised to increase their imports from Türkiye. The US appeared to have successfully fulfilled this commitment in 1945 (Tekeli & İlkin, 2016: 213-215).

Germany has been a major partner in Türkiye's foreign trade since the 1930s, but the post-war collapse of Germany negatively affected Türkiye's foreign trade. The decline in the significance of clearing agreements in 1945 and 1946, coupled with global prices, had a significant impact on Türkiye's trade. Conversely, Türkiye's shift towards an economic strategy that relied heavily on American aid and loans heightened external efforts to liberalise foreign trade. The devaluation in 1946 was clearly implemented to align with the Bretton Woods Agreement and to enhance trade ties with the Western world (Tezel, 2015: 218-222). The Turkish government devalued the national currency on 7 September 1946 to increase exports. However, this policy did not yield the expected result. In 1947, the long-standing trade surplus transformed into a trade deficit. Exports declined in the subsequent year. Although it started to increase again in 1949, the increase in imports surpassed it (Alkin, 1983: 9). In the post-war period, Germany ceased to be an important trading partner for Türkiye and was replaced by the US and the UK. Nevertheless, by 1950, Germany had regained significance as a crucial trading partner, increasing its share in Türkiye's exports to 25% and in its imports to 20% (Tezel, 2015: 222).

Evaluating these issues shows that WWII, along with the Great Depression, significantly influenced the Turkish economy between 1923 and 1950. The war was

particularly significant for bilateral economic and political relations, with both direct and indirect effects on exports and imports. As illustrated in Fig. 2, geopolitical risks (world GPR) increased substantially during the wartime period. Its relative intensity in Türkiye reflected a similar pattern in world GPR. However, as shown by Türkiye's index (dashed line), war-related news mentioning Türkiye in newspapers began appearing earlier than in the rest of the world. This may imply that the perception of war-related risk was felt earlier in Türkiye than elsewhere in the world. The German invasion of Greece in 1941 was one of the main reasons for this. The fact that the conflict had spread to Türkiye's frontiers emerged as a significant risk concern. However, the risk to Türkiye diminished following Germany's attack on the Soviet Union (Aydın, 2018: 388).

**Figure: 2**  
**GPR Index: World vs Türkiye**



Note: The figure compares Türkiye's GPR with the World GPR (1923-1950). The dashed line shows Türkiye's GPR, while the solid line represents the World GPR. Vertical lines mark the WWII era (1939-1945).  
Source: Caldara and Iacoviello (2022).

Overall, the political relations between Türkiye and its trading partners, as discussed above, significantly influenced Türkiye's exports and imports from 1923 to 1950. Undoubtedly, the war played a key role in shaping these relations. To investigate the effects of political factors on Türkiye's trade, we consider both global political risks and tensions in Türkiye's bilateral relations with its partners. Specifically, we examine the impact of the GPR index on Türkiye's bilateral trade during the first 28 years following its independence. Additionally, as an alternative definition of political risk, we create a variable that represents bilateral tensions; further details are provided in the next section.

## 5. Data & Methodology

The gravity model, originally inspired by Newton's law of gravitation, has become a cornerstone framework in analysing trade flows between countries. The model has been

labelled the "workhorse" of empirical trade analysis, as it fits existing data well and is readily applicable (Head & Mayer, 2014). In its most basic form, the gravity model posits that bilateral trade flows are positively related to the economic sizes of the trading partners and inversely related to the distance between them. The gravity model established its place in the international trade literature through the pioneering empirical study conducted by Tinbergen (1962). However, significant advancements have since been made, providing a robust theoretical basis. Anderson (1979) offered one of the first microeconomic derivations of the gravity equation, showing that it could emerge from a model of trade based on constant-elasticity-of-substitution (CES) preferences and product differentiation. The incorporation of the gravity model into frameworks of monopolistic competition and increasing returns to scale further enriched its theoretical robustness (Helpman and Krugman, 1985). Eaton and Kortum (2002) demonstrated that the model could also be derived from Ricardian trade theory, linking it to comparative advantage. The simplest form of the gravity equation can be expressed as follows:

$$T_{ij} = G \frac{Y_i Y_j}{D_{ij}^\alpha} \quad (1)$$

where  $T_{ij}$  denotes bilateral trade flows (exports or imports) between country  $i$  and country  $j$ ,  $Y_i$  and  $Y_j$  denote the economic size of country  $i$  and country  $j$ , respectively.  $D_{ij}$  denotes the geographical distance between  $i$  and  $j$  and is employed as a proxy for bilateral trade costs. Most studies in the international trade literature employ the log-linearised form of this equation which is also augmented  $D_{ij}$  with additional variables such as having a common border, common language, common currency, colonial relationship, bilateral tariffs, trade agreement membership, and being landlocked, to measure countries' cultural and geographical characteristics.

Later, Anderson and van Wincoop (2003) addressed the issue of multilateral resistance terms (MRT), emphasising that trade flows depend not only on bilateral trade costs but also on the relative trade barriers with other trading partners. Therefore, in addition to trade costs, they suggested including the MRTs of the exporter and importer in the equation. Baier and Bergstrand (2009) proposed a simpler method for calculating MRT using a first-order log-linear Taylor series expansion, which produces estimates identical to those obtained from the nonlinear estimation of the full system of equations proposed by Anderson and van Wincoop (2003). It has been confirmed that including various pair fixed effects in the model controls for unobserved factors and effectively addresses potential endogeneity concerns (Baier & Bergstrand, 2007; Anderson & Yotov, 2012; Yotov et al., 2016). Subsequently, the issue of endogeneity has been extended to encompass any trade policy variable (Piermartini & Yotov, 2016; Felbermayr & Yotov, 2021). Anderson and Yotov (2010) further highlighted the role of home bias effects, which may influence the estimated effects of other variables included in the gravity equation. To address this, they employed an internal trade dummy variable to differentiate between internal and international trade. Later studies have used the difference between total output (GDP) and total national exports as a proxy for domestic trade (Dai et al., 2014; El Dahrawy et al.,

2021). Yotov (2022) suggests using gross production data rather than GDP to calculate domestic trade.

The estimation approaches employed in the gravity literature have evolved to address critical econometric challenges and improve the robustness of results. Early studies primarily utilised ordinary least squares (OLS) applied to the log-linearised form of the gravity equation. However, this method is highly sensitive to heteroscedasticity and unable to accommodate zero trade flows, often leading to biased and inconsistent estimates. To address these limitations, Santos Silva and Tenreiro (2006) proposed the Poisson pseudo-maximum likelihood (PPML) estimator, which provides consistent estimates under the correct specification of the mean of the dependent variable. The PPML approach handles the presence of zero trade values and heteroskedastic error terms in the multiplicative form of the gravity equation, and, as a weighted non-linear least squares estimator, it eliminates the need to log-linearise the gravity equation.

To estimate the impact of bilateral tensions and geopolitical risks on trade between Türkiye and its trading partners for the period 1923-1950, we also adopt the augmented version of the gravity framework. Our dependent variables are Türkiye's exports and imports with its trading partners. These data are collected from TUIK (2014) and supplemented with data from Fouquin and Hugot (2016). The bilateral trade data (in thousands of dollars) provided by TUIK (2014) cover Türkiye's exports and imports with a limited set of trading partners for the early Republican period. To improve country coverage and reduce missing observations, these data are supplemented with historical trade statistics from Fouquin and Hugot (2016). The latter dataset reports trade values in British pounds, which are converted into US dollars using the pound-to-dollar exchange rate provided in the same dataset. For overlapping observations available in both datasets, the correlations for exports and imports are 92.34% and 94.19%, respectively. This indicates a high degree of consistency between the two sources. Therefore, expanding the sample with the latter dataset yields a more balanced representation of Türkiye's bilateral trade during the period under study<sup>4</sup>.

We use three sets of independent variables. The first one accounts for standard gravity variables such as economic size and physical distance. The second one covers the effects of the main explanatory variables, while the third one includes the control variables. In the gravity literature, economic size is proxied by GDP. The GDP of the exporting country indicates production capacity, whereas the GDP of the importing country indicates potential demand within that country. GDP data is obtained from The Maddison Project Database, which provides it in million Geary-Khamis dollars. The physical distance between two trading partners is a proxy for the transportation costs. It is obtained from the GeoDist dataset

---

<sup>4</sup> The countries in the TUIK export dataset are the US, Germany, Austria, Bulgaria, China, France, the Netherlands, the UK, Iran, Spain, Switzerland, Italy, Japan, Egypt, Poland, Romania, the Former USSR, Syria, and Greece. The countries in the TUIK import dataset are the US, Germany, Austria, Bulgaria, Brazil, China, Czechoslovakia, France, the Netherlands, the UK, Iran, Spain, Switzerland, Italy, Japan, Egypt, Romania, the Former USSR, Sweden, Syria, and Greece. Export data for Brazil and Sweden, as well as export and import data for Belgium and Portugal, are supplemented using a dataset from Fouquin and Hugot (2016).

and is measured as the population-weighted great-circle distance between the largest cities in a country (Mayer & Zignano, 2006). In the gravity literature, variables such as colonial ties, shared language, shared religion, and common borders (contiguity) are commonly used to account for trade frictions. However, for the countries included in our analyses, only contiguity is applicable. Thus, this variable, along with physical distance, has been incorporated into the estimations. The contiguity data were obtained from Fouquin and Hugot (2016).

In the current study, Equation 1 is augmented with two additional explanatory variables to investigate the impact of the Great Depression and political events on Türkiye's trade with its partners during the early years of its existence. The former is proxied by a dummy variable that represents the crisis period. In creating this dummy variable, the League of Nations' industrial production index (1939) was considered. This country-specific indicator variable is constructed by identifying the year in which each country's index value returned to its pre-crisis level.

The latter is proxied by two variables in the different models. The first variable is the country-specific historical GPR index proposed by Caldara and Iacoviello (2022). The index provides a more complete perspective by accounting for changes in the definition of political risks and the globalisation of risk. It is calculated monthly at both the global and country levels using automated text-search results from newspaper electronic archives. The global index is measured by the frequency of newspaper articles discussing adverse geopolitical events, based on keywords such as war, nuclear, and terrorism. The *recent* GPR index is based on 10 newspapers (Chicago Tribune, Los Angeles Times, NYT, WSJ, WaPo, Phil. Enquirer, Daily Telegraph, FT, Guardian, The Globe and Mail) from 1985 onwards, whereas the *historical* GPR index starts from 1900 and is based on only four newspapers (NYT, Chicago Tribune, and WaPo).

Both the recent and historical GPR indices are constructed for 44 countries as a country-specific measure of geopolitical risk. They measure the relative intensity of recent and historical GPR in these 44 countries. The country-level GPR index represents the monthly share of all newspaper articles that meet the inclusion criteria and reference the country's name or one of its major cities. As with the recent and historical GPR indices, the *recent country-level* GPR index covers the period from 1985 to the present, while the *historical country-level* GPR index spans the period from 1900 to the present. We use the historical country-level GPR in our analyses, as the recent country-level GPR is not available for the analysis period. The index is available monthly; therefore, we convert it to an annual format by averaging over 12 months. Both Türkiye's and its trading partners' GPR indices have been employed. Since the index is based on exogenous events, it is less likely to be influenced by economic indicators compared to other political risk proxies. This characteristic of the GPR makes it well-suited to estimating the direct effects of geopolitical risk on economic indicators (Pyo 2021). It is unlikely that Türkiye's bilateral trade volumes during this period were sufficiently large to influence geopolitical risk, which was primarily driven by major international events.

The second variable, proxying for political events, is a dummy indicating bilateral tensions between Türkiye and its partners during 1923-1950. The variable takes a value of 1 in years when tensions occurred between Türkiye and the trading partner, and 0 otherwise. The tensions considered in constructing this variable are mainly drawn from Oran (2018) and Sönmezoğlu (2015), with additional support from Hale (2021), Criss (2017), VanderLippe (2001), Beck (1981), De Luca (1977), and Khadduri (1945). Oran (2018) and Sönmezoğlu (2015) identified these tensions based on political disputes between Türkiye and its trading partners. Examples of these bilateral tensions are discussed in Section 4, which details Türkiye's bilateral political relations, and a complete list is provided in Table A1 in the Appendix. Similarly, bilateral political tensions during the period under study were largely shaped by diplomatic and geopolitical developments rather than by fluctuations in bilateral trade volumes.

Finally, we include three control variables. The first is the bilateral trade agreements dummy, constructed from agreements with countries included in the analysis during the specified period. These agreements and their sources are listed in Appendix Table A2. The second control variable is the sterling/TL exchange rate, which is used to account for price competitiveness. The data for the sterling/TL rate are sourced from Köklü (1947) and Tezel (2015). The third control variable comprises multiple dummies that reflect shifts in Türkiye's trade policies. Since Türkiye's trade policy shifted twice during the period in question, dummy variables are created to represent each phase. The first dummy takes the value 1 for the period 1923-1929, representing a period of limited state intervention in the economy and restrictions on changes to customs tariffs under the Lausanne Agreement. The second dummy takes a value of 1 for 1930-1938, reflecting interventionist and protectionist policies, as well as an autarkic approach to foreign trade. The final period, 1939-1950, is divided into two sub-periods. The first sub-period, corresponding to the war years, takes a value of 1 for 1939-1945. The second sub-period, marking Türkiye's accession to the Western Bloc, takes a value of 1 for 1946-1950.

After merging the trade data with other datasets [GPR, Maddison Project Database (MPD), and GeoDist], we are left with 14 countries in both the export and import analyses. Data availability constraints primarily drive the reduction in country coverage. Several trading partners are excluded due to the absence of historical country-level GPR data (Austria, Bulgaria, Greece, Czechoslovakia, and Romania), while Egypt is excluded due to missing GDP data. Iran and Syria are dropped because neither GPR nor GDP data is available for the analysis period. China is also excluded due to non-overlapping missing values in trade and GDP variables. This resulted in an unbalanced panel dataset, containing 381 observations for the export analysis and 384 observations for the import analysis<sup>5</sup>. To assess the effect of geopolitical risks and bilateral tensions on trade between Türkiye and its trading partners from 1923 to 1950, we employ the following equations:

---

<sup>5</sup> The countries analysed in the study are the US, Germany, Brazil, France, the Netherlands, the UK, Spain, Switzerland, Italy, Japan, the Former USSR, Sweden, Portugal, and Belgium.



$$T_{j,t}^{TR} = \exp(\mu_j + \beta_1 \ln GPR_{j,t} + \beta_2 \ln GPR_{TR,t} + \sigma_1 \ln Dist_{j,TR} - \sigma_1 MRDist_{j,TR} + \sigma_2 Contig_{j,TR} - \sigma_2 MRContig_{j,TR} + X_{TR;j,t} \boldsymbol{\theta}) \eta_{j,TR,t} \quad (2)$$

$$T_{j,t}^{TR} = \exp(\mu_j + \gamma_1 \text{BilateralTensions}_{j,TR,t} + \sigma_1 \ln Dist_{j,TR} - \sigma_1 MRDist_{j,TR} + \sigma_2 Contig_{j,TR} - \sigma_2 MRContig_{j,TR} + X_{TR;j,t} \boldsymbol{\theta}) \eta_{j,TR,t} \quad (3)$$

where the subindices  $TR$  and  $j$  represent Türkiye and its trading partners, respectively.  $T_{j,t}^{TR}$  denotes real trade flows (exports and imports) between Türkiye and its trading partners. The GDP data used in the analysis are obtained from the MPD version 2023, which reports values in international dollars at constant 2011 prices. To ensure consistency between output and trade measures, nominal bilateral trade flows for the period 1923-1950 are converted into real terms using Türkiye's consumer price index (CPI), with 1939=100, as reported in Doğruel and Doğruel (2005). The CPI series is rebased to 2011 prices before deflating the trade data. This procedure is consistent with previous studies that employ historical trade data in gravity models (e.g., Morrow et al., 1998; Mansfield et al., 2000; Mansfield et al., 2008; Glick & Taylor, 2010).

$GPR_{TR,t}$  and  $GPR_{j,t}$  stand for Türkiye's and its trading partners' geopolitical risk indices, respectively. As an alternative measure of political risk, *BilateralTensions* $_{j,TR,t}$  variable is used. It provides data on tensions between Türkiye and its trading partners during the period under study and is obtained from multiple sources (see Appendix Table A1).  $Dist_{j,TR}$  is the population-weighted great circle distance between Türkiye and its partners and  $Contig_{j,TR}$  is an indicator variable for Türkiye and its partners sharing a border.  $X$  is a set of control variables that include real GDPs of Türkiye and its trading partners as proxies for economic sizes of countries, sterling/TL exchange rate as a proxy for external competitiveness, bilateral trade agreements between Türkiye and its partners, and some dummy variables to control for the Great Depression, WWII and the political shifts in Türkiye. Finally,  $t$  denotes time, i.e.  $t=1923, \dots, 1950$ ,  $\eta_{TRjt}$  denotes the multiplicative error term which is  $E(\eta_{j,TR,t}|X) = 0$  and  $\mu_j$  captures country fixed effects for partner  $j$ . Several standard gravity variables commonly used in gravity models, such as common language, colonial ties, and common religion, are not included in the estimations due to insufficient variation across Türkiye-partner pairs in the final sample. Both equations are estimated using the PPML approach with fixed effects.

Recent developments in the gravity literature suggest using various pair fixed effects to control for unobservable factors and address potential endogeneity. Although full bilateral trade data (trade between all country pairs) is available, the variable *bilateral tensions*, a key focus of our study, is not available for all pairs. In addition, the variable *bilateral trade agreement*, included in the model as a control variable, is also obtained from various sources solely for Türkiye (see Appendix Table A2). Therefore, the estimates rely on  $N \times T$  observations rather than  $N(N-1) \times T$ , as used in Berger et al. (2013). However, following Berger et al. (2013), we incorporated the correction terms proposed by Baier and Bergstrand (2009) into the equation to account for unobservable effects. Baier and Bergstrand (2009)

estimated the MRTs proposed by Anderson and van Wincoop (2003) by modelling unobservable effects with observable variables. Accordingly, the correction terms for bilateral distance and contiguity ( $MRDist_{j,TR}$  and  $MRContig_{j,TR}$ ), along with the corresponding trade cost variables, are included in the estimations to control for unobserved relative trade barriers and to mitigate potential endogeneity concerns arising from omitted multilateral trade resistance<sup>6</sup>.

Another potential source of endogeneity in the estimation is reverse causality in the relationship between trade flows and political risk indicators. In the historical context of the period under study, geopolitical risks and bilateral political tensions were largely driven by major international events and diplomatic developments, which are plausibly exogenous to Türkiye's bilateral trade. Nevertheless, the results should be interpreted with caution and not as strict causal effects.

We transform all numeric explanatory variables in Equations 2 and 3 to natural logs and estimate the fixed-effects model, which assumes that individual-specific effects are uncorrelated with the explanatory variables<sup>7</sup>. If the individual-specific effects are uncorrelated with the explanatory variables, then one should proceed with the random-effects model. However, the choice between these two estimators also depends on the sample selection. If the selection of sample countries is random rather than specific, the random-effects model is more efficient (Egger, 2002). As the selection of sample countries in our study is highly dependent on data availability, and the share of these countries in Türkiye's trade ranges from 55% to 87%, we employ the fixed-effects model to estimate Equation 2<sup>8</sup>.

<sup>6</sup> The correction terms are calculated as follows:

$$MRDist_{ij} = [(\sum_{k=1}^N \theta_k \ln Dist_{ik}) + (\sum_{m=1}^N \theta_m \ln Dist_{mj}) - \sum_{k=1}^N \sum_{m=1}^N \theta_k \theta_m \ln Dist_{km}] \text{ and}$$

$$MRContig_{ij} = [(\sum_{k=1}^N \theta_k \ln Contig_{ik}) + (\sum_{m=1}^N \theta_m \ln Contig_{mj}) - \sum_{k=1}^N \sum_{m=1}^N \theta_k \theta_m \ln Contig_{km}],$$

where  $\theta = Y_{i,t}/Y_{W,t}$ . We calculated these variables for all country pairs and included them in our regressions. They are constrained to have the same coefficients but opposite signs, as suggested in Baier and Bergstrand (2009).

<sup>7</sup> Yotov et al. (2016) and Yotov (2022) have demonstrated that incorporating domestic trade flows into gravity models allows for the estimation of heterogeneous intra- and international trade costs, while accounting for home bias. Domestic trade can be calculated either as the difference between gross production and exports or as the difference between GDP and exports. However, gross production data is unavailable for the analysis period. While nominal GDP data could serve as an alternative, it contains missing values for the same period. Consequently, we were unable to include this variable in our analyses.

<sup>8</sup> More precisely, the exporting partners' share in Türkiye's total exports within the analysis period varies between 59.99% and 85.16%, whereas the share of its importing partners as a proportion of total imports varies between 54.48% and 86.47%. Details on the share of countries included in the analysis are provided in Figure A1 and Figure A2 in the Appendix. As shown in the figures, the shares of both exporting and importing partners decreased noticeably during the war years. This was because countries such as the UK and Italy, which were directly involved in the war, conducted trade through intermediaries such as Romania, India, Hungary, Egypt, and Palestine (Tekeli & İlkin, 2016: 224-225). However, due to data unavailability, these countries could not be included in the analyses, resulting in lower recorded shares for the period.

## 6. Findings and Discussions

The analysis results examining the impact of political risks on Türkiye's exports and imports during the first 28 years of its establishment are presented in Tables 1 and 2 below<sup>9</sup>. These results are derived from PPML estimates within the gravity model framework. In the first two columns of these tables, the geopolitical risk index is used as a measure of political risk, while in the last two columns, a dummy variable representing the bilateral tensions experienced by Türkiye is employed. The findings provide valuable insights into how these dimensions of political risk influenced trade during the formative years of a neutral country, which coincided with the WWII era.

The difference between Columns 1 and 2 is that Column 2 incorporates countries' multilateral resistance terms, using the Baier and Bergstrand (2009) approximation method. This approach includes correction terms for the trade-cost variables (physical distance and contiguity) used in Column 1, as well as adjustments to these variables themselves. By incorporating these terms, this estimation captures the indirect effects of trade barriers across all trading partners, rather than just bilateral costs. Columns 3 and 4 replicate this approach, but instead of the geopolitical risk index analysed in Columns 1 and 2, they use bilateral tensions as the primary variable of interest.

According to the first two columns of Table 1, the GPR of partner countries (GDP partner), the first main variable of interest, is statistically significant and has a negative effect on Türkiye's exports. The coefficient decreases slightly when corrected trade cost terms are employed. Specifically, a 1% increase in partners' GPR leads to a 0.174 reduction in Türkiye's exports. This result aligns with the growing body of literature suggesting that heightened geopolitical risks increase uncertainty and transaction costs, thereby reducing trade volumes (Caldara & Iacoviello, 2022; Gupta et al., 2019). It is also consistent with earlier studies that use alternative political variables (Anderton & Carter, 2001; Glick & Taylor, 2010).

Türkiye's GPR (*GPR Türkiye*) is, on the other hand, positive and statistically significant. Again, the coefficient decreases slightly after the addition of correction terms. Türkiye's strategic positioning as a neutral country during WWII could explain this finding, as it allowed it to maintain trade relations with both the Axis and the Allied powers. In addition to leveraging its neutral status during the war, Türkiye prioritised development in its foundational years. It is also possible that, as a neutral country, Türkiye benefited from increased trade during periods of heightened geopolitical risk. Hedberg and Karlsson (2015)

---

<sup>9</sup> Before performing the regression analyses, a Fisher-type unit root test based on the augmented Dickey-Fuller method was conducted to examine the stationarity of the variables. Before applying this first-generation unit root test, which confirmed that all variables are stationary, the cross-section dependence test developed by Pesaran (2004) was performed, and cross-section independence was identified. These results are available upon request.

demonstrated that countries, particularly neutral ones, often experience trade gains during global conflicts.

**Table: 1**  
**Regression Results from the Export Analyses**

| Independent Variables       | Exports             |                      |                     |                      |
|-----------------------------|---------------------|----------------------|---------------------|----------------------|
|                             | (1)                 | (2)                  | (3)                 | (4)                  |
| GDP Partner                 | 2.171***<br>(5.75)  | 2.615***<br>(6.49)   | 1.990***<br>(5.74)  | 2.419***<br>(6.05)   |
| GDP Türkiye                 | 0.535<br>(0.95)     | 0.0163<br>(0.03)     | 0.463<br>(0.84)     | -0.158<br>(-0.31)    |
| Bilateral Trade Agreements  | -0.112<br>(-0.80)   | -0.0279<br>(-0.24)   | -0.176<br>(-1.12)   | -0.0544<br>(-0.43)   |
| Sterling/Lira Rate          | 0.213<br>(0.52)     | -0.0324<br>(-0.09)   | 0.129<br>(0.28)     | -0.114<br>(-0.25)    |
| Great Depression            | -0.260**<br>(-2.47) | -0.222*<br>(-1.93)   | -0.242**<br>(-2.46) | -0.217*<br>(-1.95)   |
| Corrected Physical Distance |                     | -0.302**<br>(-2.41)  |                     | -0.257**<br>(-2.00)  |
| Corrected Contiguity        |                     | -5.341***<br>(-3.97) |                     | -6.105***<br>(-4.66) |
| GPR Partner                 | -0.191**<br>(-2.03) | -0.174**<br>(-3.25)  |                     |                      |
| GPR Türkiye                 | 0.273***<br>(2.82)  | 0.239***<br>(2.62)   |                     |                      |
| Bilateral Tensions          |                     |                      | -0.0217<br>(-0.14)  | 0.0299<br>(0.16)     |
| # of Obs.                   | 368                 | 368                  | 368                 | 368                  |
| MRT                         | no                  | Yes                  | no                  | yes                  |

*Notes: Estimates are based on Türkiye's exports to 14 trading partners during the period 1923-1950. The dependent variable is export value, and the natural logarithm is taken of the numeric independent variables. The bilateral tensions variable is a dummy indicating whether Türkiye experienced tensions with the respective countries. The Great Depression variable is a country-specific dummy, with the League of Nations' (1939) industrial production index taken into account. The bilateral trade agreements dummy captures agreements such as clearing agreements, treaties of commerce and navigation, and tariff and payment agreements that Türkiye has signed with these countries. Columns 1 and 3 include physical distance and contiguity dummies, which are dropped since they are constant within the group. Columns 2 and 4 incorporate the corrected trade cost variables, calculated using the Baier and Bergstrand (2009) multilateral resistance terms. All regressions include country fixed effects and dummy variables, one of which captures WWII, to represent shifts in Türkiye's trade policies. z-statistics with robust standard errors from PPML estimations are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .*

Columns 3 and 4 in Table 1 present the effects of bilateral tensions, used as a proxy for political factors, as an alternative to the GPR index. In contrast to the GPR index, the effect of bilateral tensions is not statistically significant, and the variable's sign changes after the inclusion of corrected trade costs. The insignificance of this variable suggests that localised political tensions did not substantially affect Türkiye's exports during this period. Moreover, Türkiye's neutral stance during WWII likely helped mitigate the economic consequences of these tensions (Tekeli & İlkin, 2016: 217). The divergent findings for the two variables used to represent political factors suggest that the GPR index, which captures global political risks, plays a more significant role in influencing Türkiye's exports than do bilateral tensions between Türkiye and its trading partners.

Among the control variables, only the GDP of the partner country and the Great Depression dummy are significant across all regressions. The positive coefficient of the GDP partner variable ranges from 1.9 to 2.6. The negative coefficients for the Great Depression variable indicate that the global economic downturn had a significant adverse effect on Türkiye's exports, which is consistent with studies showing that economic crises disrupt trade by reducing demand and increasing barriers to international trade (Madsen, 2001; Broll

& Jauer, 2014). Other control variables, Türkiye's GDP, bilateral trade agreements and the sterling-lira exchange rate, are statistically insignificant in the export analysis. This is not unexpected given the structure of Türkiye's foreign trade during the interwar and early postwar periods. During this period, Türkiye's exports appear to have been largely driven by demand from partner countries rather than by fluctuations in domestic output. Similarly, bilateral trade agreements and exchange rate movements may have played a limited role in shaping export volumes during periods dominated by global economic disruptions, trade restrictions, and wartime controls.

**Table: 2**  
**Regression Results from Imports Analyses**

| Independent Variables       | Imports              |                     |                    |                     |
|-----------------------------|----------------------|---------------------|--------------------|---------------------|
|                             | (1)                  | (2)                 | (3)                | (4)                 |
| GDP Partner                 | 2.769***<br>(4.88)   | 3.032***<br>(4.41)  | 2.571***<br>(5.24) | 2.848***<br>(4.41)  |
| GDP Türkiye                 | 0.553<br>(1.08)      | 0.000969<br>(0.00)  | 0.449<br>(0.81)    | -0.169<br>(-0.39)   |
| Bilateral Trade Agreements  | -0.0907<br>(-0.44)   | -0.00888<br>(-0.05) | -0.166<br>(-0.76)  | -0.0635<br>(-0.39)  |
| Sterling/Lira Rate          | 0.607***<br>(4.08)   | 0.371**<br>(2.43)   | 0.485***<br>(3.58) | 0.273<br>(1.63)     |
| Great Depression            | -0.213*<br>(-1.66)   | -0.163<br>(-1.05)   | -0.200*<br>(-1.75) | -0.171<br>(-1.14)   |
| Corrected Physical Distance |                      | -0.173<br>(-0.77)   |                    | -0.111<br>(-0.50)   |
| Corrected Contiguity        |                      | -5.975**<br>(-2.31) |                    | -6.612**<br>(-2.45) |
| GPR Partner                 | -0.233***<br>(-2.91) | -0.178**<br>(-2.40) |                    |                     |
| GPR Türkiye                 | 0.333***<br>(3.05)   | 0.284***<br>(3.14)  |                    |                     |
| Bilateral Tensions          |                      |                     | -0.141<br>(-0.58)  | -0.102<br>(-0.40)   |
| # of Obs.                   | 384                  | 384                 | 384                | 384                 |
| MRT                         | no                   | yes                 | no                 | yes                 |

Notes: Estimates are based on Türkiye's imports from 14 trading partners during the period 1923-1950. The dependent variable is the value of imports, and the natural logarithm is taken of the numeric independent variables. The bilateral tensions variable is a dummy indicating whether Türkiye experienced tensions with the respective countries. The Great Depression variable is a country-specific dummy, with the League of Nations' (1939) industrial production index taken into account. The bilateral trade agreements dummy captures agreements such as clearing agreements, treaties of commerce and navigation, and tariff and payment agreements that Türkiye has signed with these countries. Columns 1 and 3 include physical distance and contiguity dummies, which are dropped since they are constant within the group. Columns 2 and 4 incorporate the corrected trade cost variables, calculated using the Baier and Bergstrand (2009) multilateral resistance terms. All regressions include country fixed effects and dummy variables, one of which captures WWII, to represent shifts in Türkiye's trade policies. z-statistics with robust standard errors from PPML estimations are in parentheses. \*  $p < 0.1$ , \*\*  $p < 0.05$ , \*\*\*  $p < 0.01$ .

With some minor differences, the results from the import analyses align with those from the export analyses, as shown in Table 2. According to this table, the geopolitical risk index of Türkiye's partners (*GPR partner*) has a negative and statistically significant effect on Türkiye's imports, while bilateral tensions have a negative but statistically insignificant effect. The import-reducing impact of the trading partner's GPR is similar to its effect on exports, particularly when the regression results in Column 2, which account for corrected trade cost terms, are considered. Specifically, a 1% increase in the partner country's GPR index leads to a 0.178 decrease in Türkiye's imports. This finding is consistent with Pollins (1989a, 1989b), who found a positive impact of cooperation, an alternative definition of political factors, on imports. According to the results in columns 1 and 2, in contrast to the adverse effects of partners' GPR on imports, Türkiye's GPR appears to facilitate imports,

consistent with the findings for exports. However, the positive impact of this variable is slightly stronger for imports than for exports.

In addition to the significant control variables in export analyses (GDP partner and Great Depression), the sterling/lira exchange rate also has a significant effect in the import regressions<sup>10</sup>. Contrary to expectations, an increase in the sterling/lira rate leads to an increase in Türkiye's imports. The composition of Türkiye's imports can explain this result during the analysis period, which included essential goods such as consumption and investment goods, allowing imports to continue growing despite the higher exchange rate<sup>11</sup>. However, two points are noteworthy: first, the coefficient for the sterling/lira rate becomes insignificant in column 4, where bilateral tensions are used to represent political risks and corrected trade costs are accounted for. Second, in columns 2 and 4, the coefficient on the Great Depression becomes insignificant once trade costs are corrected. Moreover, the composition of imports and the global disruptions during this period may have rendered import flows less sensitive to domestic production fluctuations, bilateral policy arrangements, and geographic trade costs. This might explain insignificant coefficients for Türkiye's GDP, bilateral trade agreements and physical distance in the import analysis.

In summary, both the export and import analyses reveal that, considering the early years of Türkiye's foundation, the global risk perceived by its trading partners has a negative effect, while Türkiye's own global risk perception has a positive effect. The effect of bilateral tensions between Türkiye and its partners is statistically insignificant. The overlap of WWII with the analysis period, combined with the involvement of many of Türkiye's trading partners in the war, made it inevitable that both imports and exports would decline amid rising political risks. However, Türkiye's foreign policy, which prevented bilateral disputes from affecting trade and avoided intervention in tensions, helped mitigate these trade-reducing effects. During this time, Türkiye was dependent on imports of essential goods and sought to earn the foreign exchange needed to finance them through exports (Köklü, 1947: 75). As a result, Türkiye avoided conflicts with other countries to prioritise exports, which were crucial for the country's development. The focus was on economic growth, with an emphasis on securing borders and territorial integrity.

## 7. Concluding Remarks

Whether political factors affect international trade is a fundamental topic in the globalised world. Several studies have indicated that adverse political factors, such as conflicts and wars, reduce trade, while factors such as cooperation and alliances increase

---

<sup>10</sup> Among the control variables used in this study, the literature highlights concern about the endogeneity of bilateral trade agreements (Baier & Bergstrand, 2007; Dai et al., 2014). To address this, the estimates were repeated without including this variable, and the findings remained unchanged.

<sup>11</sup> From the establishment of the Republic until the Great Depression, the proportion of consumer goods among imported products increased significantly. After 1929, the implementation of protectionist policies led to a decline in the proportion of consumer goods imports, while the share of raw materials and investment goods in imports grew (Tezel, 2015: 206-209; Özkardeş, 2015: 33).

trade between partners. Nevertheless, the lack of consensus in the literature on the effects of political factors warrants further study in the field. This study examines the factors influencing Türkiye's exports and imports with 14 trading partners in the early years of its establishment and investigates the effects of political risks using two variables. The first is the geopolitical risk index, a more globalised measure of political risk, while the second is a dummy variable constructed from tensions between Türkiye and its partner. Estimation results from the augmented gravity model show that, unlike the bilateral tensions dummy, the GPR has a significantly negative impact on Türkiye's exports and imports. This suggests that the rise in political risk resulting from global events had a detrimental impact on Türkiye's exports and imports.

The study reveals that tensions in Türkiye's bilateral relations did not significantly affect foreign trade, a finding attributable to factors such as security and economic development. First, it can be argued that Türkiye, as a newly established nation-state between 1923 and 1950, sought to safeguard its borders by prioritising security and avoiding conflicts with other states. Therefore, Türkiye implemented various policies to mitigate the negative impact on foreign trade through diplomatic manoeuvres during periods of heightened political risk. For instance, at the onset of WWII, Germany cancelled its loan agreement with Türkiye due to Türkiye's alliance with the UK and France. In response, Türkiye terminated its trade agreement with Germany. However, in 1941, Türkiye signed a non-aggression pact with Germany and subsequently renewed the trade agreement after German forces approached its borders. In 1944, Türkiye broke off relations with Germany under pressure from the Allies. In addition, the UK and the US pledged to increase trade with Türkiye. However, trade was negatively affected when bilateral tensions escalated to an international and global scale. For instance, Italy's invasion of Abyssinia and Türkiye's compliance with the League of Nations' economic sanctions resulted in a decline in trade between the two countries.

The second factor explaining why the GPR is statistically significant in determining exports and imports, rather than the bilateral tensions dummy, is that international trade played a crucial role in Türkiye's economic development during the period in question. During this time, imports became a key factor, particularly in acquiring essential consumer goods, machinery, and equipment, all of which significantly contributed to Türkiye's economic development. Similarly, exports were of considerable importance, as the foreign exchange needed to finance imports was generated by exports. Consequently, foreign trade was vital to Türkiye's economic development.

These findings carry important policy implications, particularly when evaluated through the lens of Türkiye's neutrality policy during the interwar and WWII periods. The significant negative effect of GPR and the lack of a statistically significant effect of bilateral tensions suggest that Türkiye's deliberate strategy of maintaining neutrality and avoiding prolonged bilateral conflicts played a crucial buffering role, preserving trade relations even amid heightened international uncertainty. By prioritising security, diplomatic flexibility,

and economic continuity, Türkiye was able to mitigate the trade-disrupting effects that typically accompany political frictions.

From a contemporary policy perspective, these historical findings underline the potential advantages of strategic neutrality and diversified diplomatic engagement for non-major economies facing increasing geopolitical fragmentation. Although the global context differs from the interwar period, geopolitical risks, sanctions, and regional conflicts have become increasingly salient today. In such environments, maintaining balanced foreign relations and minimising direct political confrontations with trading partners may help reduce trade volatility and safeguard access to critical imports and export markets. Policies emphasising diplomatic manoeuvrability, multilateral engagement, and trade diversification can serve as effective tools for enhancing economic resilience in the face of global political shocks.

It is important to acknowledge several limitations of this study. First, analysing yearly data restricts the ability to observe certain bilateral tensions, particularly those that last for only a brief period. Furthermore, the findings based on aggregate trade values may differ if the data are disaggregated by commodity group. Ultimately, these results reflect the overall trade patterns across the 14 trading partners examined in this study. Therefore, when trade between Türkiye and a specific country declines due to tensions and that decline is offset by increased trade with another country, it becomes challenging to isolate the precise impact of those tensions. Therefore, these concerns should be addressed in future research.

## References

- Afesorgbor, S.K. (2019), "The Impact of Economic Sanctions on International Trade: How Do Threatened Sanctions Compare With Imposed Sanctions?", *European Journal of Political Economy*, 56, 11-26.
- Alkin, E. (1983), *Turkey's International Economic Relations*, İstanbul: Güryay Matbaası.
- Anderson, J.E. & E. van Wincoop (2003), "Gravity with Gravitas: A Solution to the Border Puzzle", *American Economic Review*, 93(1), 170-192.
- Anderson, J.E. & Y.V. Yotov (2010), "Specialization: Pro- and Anti-globalizing, 1990-2002", NBER *Working Papers* 16301, National Bureau of Economic Research, Cambridge, Mass.
- Anderson, J.E. & Y.V. Yotov (2012), "Gold Standard Gravity", NBER *Working Papers* 17835, National Bureau of Economic Research, Cambridge, Mass.
- Anderson, J.E. (1979), "A Theoretical Foundation for the Gravity Equation", *American Economic Review*, 69(1), 106-116.
- Anderton, C.H. & J.R. Carter (2001), "The Impact of War on Trade: An Interrupted Times-Series Study", *Journal of Peace Research*, 38(4), 445-457.
- Antonucci, D. & S. Manzonchi (2006), "Does Turkey Have a Special Trade Relation with the EU?: A Gravity Model Approach", *Economic Systems*, 30(2), 157-169.
- Apergis, N. et al. (2018), "Does Geopolitical Risks Predict Stock Returns and Volatility of Leading Defence Companies?", *Defence and Peace Economics*, 29(6), 684-696.



- Arslan, L. (2022), "Osmanlı'dan Erken Cumhuriyet'e Türk-İngiliz Ticari İlişkileri", *Mavi Atlas*, 10(2), 419-437.
- Aydın, M. (2018), "1939-1945: Savaş Kaosunda Türkiye, Göreli Özerklik-2", in: B. Oran (ed.), *Türk Dış Politikası: Kurtuluş Savaşından Bugüne, Olgular, Belgeler, Yorumlar, Cilt-I: 1919-1980* (385-476), İstanbul: İletişim Yayınları.
- Aydın, M. (2021), "Turkish Foreign Policy in the Chaos of War, 1939-1945", *Journal of Balkan and Near Eastern Studies*, 23(6), 854-871.
- Baier, S.L. & J.H. Bergstrand (2007), "Do Free Trade Agreements Actually Increase Members' International Trade?", *Journal of International Economics*, 71, 72-95.
- Baier, S.L. & J.H. Bergstrand (2009), "Bonus vetus OLS: A Simple Method for Approximating International Trade-Cost Effects using the Gravity Equation", *Journal of International Economics*, 77, 77-85.
- Barbieri, K. & J.S. Levy (1999), "Sleeping with the Enemy: The Impact of War on Trade", *Journal of Peace Research*, 36(4), 463-479.
- Beck, P.J (1981), "'A Tedious and Perilous Controversy': Britain and the Settlement of the Mosul Dispute, 1918-1926", *Middle Eastern Studies*, 17(2), 256-276.
- Benguria, F. & F. Saffie (2019), "Dissecting the Impact of the 2018-2019 Trade War on U.S. Exports", *SSRN Working Paper*, No: 3505413.
- Berger, D. et al. (2013), "Commercial Imperialism? Political Influence and Trade during the Cold War", *American Economic Review*, 103(2), 863-896.
- Bilgin, M.H. et al. (2018), "The Determinants of Turkey's Exports to Islamic Countries: The Impact of Political Risks", *The Journal of International Trade & Economic Development*, 27(5), 486-503.
- Bilici, Ö. et al. (2011), "The Determining Role of EU in Turkey's Trade Flows: A Gravity Model Approach", *Actual Problems of Economics*, 4(118), 265-279.
- Bliss, H. & B. Russett (1998), "Democratic Trading Partners: The Liberal Connection, 1962-1989", *Journal of Politics*, 60(4), 1126-1147.
- Bolt, J. & J.L. van Zanden (2025), "Maddison style estimates of the evolution of the world economy: A new 2023 update", *Journal of Economic Surveys*, 39, 631-671.
- Broll, U. & J. Jauer (2014), "How International Trade is Affected by the Financial Crisis: The Gravity Trade Equation", *Dresden Discussion Paper Series in Economics*, No. 03/14, Technische Universität Dresden, Fakultät Wirtschaftswissenschaften, Dresden.
- Caldara, D. & M. Iacoviello (2022), "Measuring Geopolitical Risk", *American Economic Review*, 112(4), 1194-1225.
- Che, Y. et al. (2015), "Once an Enemy, Forever an Enemy? The Long-Run Impact of the Japanese Invasion of China from 1937 to 1945 on Trade and Investment", *Journal of International Economics*, 96(1), 182-198.
- Criss, N.B. (2017), "Turkey's Foreign Policies During the Interwar Period (1923-1939)", in: E.P. Gözen (ed.), *Turkish Foreign Policy* (17-38), Cham: Palgrave Macmillan.
- Dai, M. et al. (2014), "On the Trade-Diversion Effects of Free Trade Agreements", *Economic Letters*, 122(2), 321-325.
- De Luca, A.R. (1977), "Soviet-American Politics and the Turkish Straits", *Political Science Quarterly*, 92(3), 503-524.

- De Lucio, J. et al. (2024), "The Negative Impact of Disintegration on Trade: The Case of Brexit", *European Economic Review*, 163, 104698.
- Dixon, W.J. & B.E. Moon (1993), "Political Similarity and American Foreign Trade Patterns", *Political Research Quarterly*, 46(1), 5-25.
- Doğruel, F. & S.A. Doğruel (2005), *Türkiye'de Enflasyonun Tarihi*, Türkiye Cumhuriyet Merkez Bankası ve Türkiye Ekonomik ve Toplumsal Tarih Vakfı, Ankara; İstanbul.
- Du, Y. et al. (2017), "Bilateral Trade and Shocks in Political Relations: Evidence from China and Some of its Major Trading Partners, 1990-2013", *Journal of International Economics*, 108, 211-225.
- Eaton, J. & S. Kortum (2002), "Technology, Geography, and Trade", *Econometrica*, 70(5), 1741-1779.
- Egger, P. (2002), "An Econometric View on the Estimation of Gravity Models and the Calculation of Trade Potentials", *World Economy*, 25(2), 297-312.
- El Dahrawy Sánchez-Albornoz A. & J. Timini (2021), "Trade Agreements and Latin American Trade (creation and diversion) and Welfare", *The World Economy*, 44, 2004-2040.
- Fajgelbaum, P.D. & A.K. Khandelwal (2022), "The Economic Impacts of the US-China Trade War", *Annual Review of Economics*, 14, 205-228.
- Fajgelbaum, P.D. et al. (2020), "The Return to Protectionism", *The Quarterly Journal of Economics*, 135(1), 1-55.
- Felbermayr, G. & Y.V. Yotov (2021), "From Theory to Policy with Gravitas: A Solution to the Mystery of the Excess Trade Balances", *European Economic Review*, 139, 103875.
- Felbermayr, G. et al. (2020), "On the Heterogeneous Effects of Sanctions on Trade and Welfare: Evidence from the Sanctions on Iran and a New Database", School of Economics Working Paper Series 2020-4, LeBow College of Business, Drexel University.
- Felbermayr, G. et al. (2022), "Quantifying Brexit: from ex post to ex ante using Structural Gravity", *Review of World Economics*, 158, 401-465.
- Fouquin, M. & J. Hugot (2016), "Two Centuries of Bilateral Trade and Gravity Data: 1827-2014", CEPII Working Paper 2026-24, CEPII Research Center.
- Frede, J. & İ.H. Yetkiner (2017), "The Regional Trade Dynamics of Turkey: A Panel Data Gravity Model", *The Journal of International Trade & Economic Development*, 26(6), 633-648.
- Gholz, E. & D.G. Press (2001), "The Effects of Wars on Neutral Countries: Why It Doesn't Pay to Preserve the Peace", *Security Studies*, 10(4), 1-57.
- Glick, R. & A.M. Taylor (2010), "Collateral Damage: Trade Disruption and the Economic Impact of War", *The Review of Economics and Statistics*, 92(1), 102-127.
- Gowa, J. & E.D. Mansfield (1993), "Power Politics and International Trade", *American Political Science Review*, 87(2), 408-420.
- Gowa, J. & R. Hicks (2013), "Politics, Institutions, and Trade: Lessons of the Interwar Era", *International Organization*, 67(3), 439-467.
- Gowa, J. & R. Hicks (2015), "Commerce and Conflict: New Data about the Great War", *British Journal of Political Science*, 47(3), 653-674.
- Gupta, R. et al. (2019), "Effects of Geopolitical Risks on Trade Flows: Evidence from the Gravity Model", *Eurasian Economic Review*, 9, 515-530.

- Hale, W. (2021), "Turkey and Britain in World War II: Origins and Results of the Tripartite Alliance, 1935-40", *Journal of Balkan and Near Eastern Studies*, 23(6), 824-844.
- Head, K. & T. Mayer (2014), "Gravity Equations: Workhorse, Toolkit, and Cookbook", *Handbook of International Economics*, 4, 131-195.
- Hedberg, P. & L. Karlsson (2015), "Neutral Trade in Time of War: The Case of Sweden, 1838-1960", *International Journal of Maritime History*, 27(1), 61-78.
- Hegre, H. et al. (2010), "Trade Does Promote Peace: New Simultaneous Estimates of the Reciprocal Effects of Trade and Conflict", *Journal of Peace Research*, 47(6), 763-774.
- Helpman, E. & P. Krugman (1985), *Market Structure and Foreign Trade: Increasing Returns, Imperfect Competition, and the International Economy*, 1<sup>st</sup> ed. Vol. 1 of MIT Press Books, The MIT Press.
- İnanç, G. (2006), "The Politics of 'Active Neutrality' on the Eve of a New World Order: The Case of Turkish Chrome Sales During the Second World War", *Middle Eastern Studies*, 42(6), 907-915.
- Jacks, D.S. & D. Novy (2020), "Trade Blocs and Trade Wars during the Interwar Period", *Asian Economic Policy Review*, 15, 119-136.
- Jiao, Y. et al. (2024), "The Impacts of the U.S. Trade War on Chinese Exporters", *The Review of Economics and Statistics*, 106(6), 1576-1587.
- Jin, H. & Y. Shin (2022), "Global Geopolitical Risk and International Trade of Korea: Do Politics Matter?", *SSRN Working Paper*, No. 405792.
- Karacan, S. & Ö. Korkmaz (2022), "Turkish Exports Before and After the 2001 Financial Crisis: A Panel Gravity Model", *Foreign Trade Review*, 57(1), 27-40.
- Karakaş, N. (2010), "İkinci Dünya Savaşı Yıllarında Türkiye'nin Krom Satışı ve Müttefik Politikaları", *Tarih İncelemeleri Dergisi*, 25(2), 447-482.
- Karavar, H. (2019), "Türk-Alman Ticari İlişkilerinde Yeniden Canlanma: 1949-1954 Yılları", *Akdeniz İnsani Bilimler Dergisi*, 9(2), 373-387.
- Karlsson, L. & P. Hedberg (2021), "War and Trade in the Peaceful Century: The Impact of Interstate Wars on Bilateral Trade Flows during the First Wave of Globalization, 1830-1913", *The Economic History Review*, 74, 809-830.
- Khadduri, M. (1945), "The Alexandretta Dispute", *American Journal of International Law*, 39(3), 406-425.
- Kim, C.Y. & H. Jin (2023), "Does Geopolitical Risk Affect Bilateral Trade? Evidence from South Korea", *Journal of the Asia Pacific Economy*, 29(4), 1834-1853.
- Köklü, A. (1947), *Türkiye'de Para Meseleleri*, Ankara: Millî Eğitim Basımevi.
- League of Nations (1939), *World Production and Prices, 1938/39*, Geneva.
- Levy, J.S. & K. Barbieri (2004), "Trading with The Enemy During Wartime", *Security Studies*, 13(3), 1-47.
- Li, Q. & D. Sacko (2002), "The (Ir)Relevance of Militarized Interstate Disputes for International Trade", *International Studies Quarterly*, 46(1), 11-43.
- Long, A.G. (2003), "Defence Pacts and International Trade", *Journal of Peace Research*, 40(5), 537-552.

- Long, A.G. (2008), "Bilateral Trade in the Shadow of Arm Conflict", *International Studies Quarterly*, 52(1), 81-101.
- Madsen, J.B. (2001), "Trade Barriers and the Collapse of World Trade during the Great Depression", *Southern Economic Journal*, 67(4), 848-868.
- Mansfield, E.D. & J. Gowa (1994), "Alliances and Trade: An Empirical Analysis", in: J. Gowa (ed.), *Allies, Adversaries, and International Trade* (54-78), New Jersey: Princeton University Press.
- Mansfield, E.D. et al. (2000), "Free to Trade: Democracies, Autocracies, and International Trade", *American Political Science Review*, 94(2), 305-321.
- Mansfield, E.D. et al. (2008), "Democracy, Veto Players and the Depth of Regional Integration", *The World Economy*, 31(1), 67-96.
- Mayer, T. & S. Zignano (2006), *Notes on CEPII's Distances Measures*, <[https://www.cepii.fr/distance/noticedist\\_en.pdf](https://www.cepii.fr/distance/noticedist_en.pdf)>, 14.11.2023.
- Mengeş, Y. (2018), *İkinci Dünya Savaşı Dönemi Türk-İtalyan İlişkileri*, İstanbul: Libra Kitapçılık ve Yayıncılık.
- Morrow, J.D. et al. (1998), "The Political Determinants of International Trade: The Major Powers, 1907-90", *American Political Science Review*, 92(3), 649-661.
- Nguyen T.T. & M.H. Do (2021), "Impact of Economic Sanctions and Counter-Sanctions on the Russian Federation's Trade", *Economic Analysis and Policy*, 71, 267-278.
- Ökçün, G. & A.R. Ökçün (1974), *Türk Antlaşmaları Rehberi 1920-1973*, Ankara Üniversitesi Siyasal Bilgiler Fakültesi Yayınları, No: 372, Ankara.
- Önsoy, M. (2012), "1939-1944 İngiliz-Alman İktisadi Harbi: Türk Kromu üzerine Pazarlıklar", *Hacettepe Üniversitesi İktisadi ve İdari Bilimler Fakültesi Dergisi*, 30(1), 93-120.
- Oran, B. (2018), *Türk Dış Politikası-I*, İstanbul: İletişim Yayınları.
- Özkardeş, L. (2015), "Cumhuriyetin İlk Yılları ve 1929 Ekonomik Buhranında Dış Ticaretin Yönetimi", *Gümrük ve Ticaret Dergisi*, 6, 25-34.
- Pamuk, Ş. (2018), *Uneven centuries: Economic development of Turkey since 1820*, New Jersey and Oxford, Princeton University Press.
- Pesaran, H.M. (2004), "General Diagnostic Tests for Cross Section Dependence in Panels", CESifo Working Paper Series No. 1229; IZA Discussion Paper No. 1240.
- Piermartini, R. & Y.V. Yotov (2016), "Estimating Trade Policy Effects with Structural Gravity", WTO Staff Working Papers ERSD-2016-10, World Trade Organization (WTO), Economic Research and Statistics Division.
- Pollins, B.M. (1989a), "Does Trade Still Follow the Flag?", *American Political Science Review*, 83(2), 465-480.
- Pollins, B.M. (1989b), "Conflict, Cooperation, and Commerce: The Effects of International Political Interactions on Bilateral Trade Flows", *American Journal of Political Science*, 33, 737-761.
- Pyo, D.-J. (2021), "Does Geopolitical Risk Matter? Evidence from South Korea", *Defence and Peace Economics*, 32(1), 87-106.
- Reuveny, R. & H. Kang (1998), "Bilateral Trade and Political Conflict/Cooperation: Do Goods Matter?", *Journal of Peace Research*, 35(5), 581-602.

- Santos Silva J.M.C. & S. Tenreyro (2006), "The Log of Gravity", *The Review of Economics and Statistics*, 88(4), 641-658.
- Sarıgüzel, N. (2022), "Atatürk Dönemi Dış Ticaret Dengesi Politikasına Bir Örnek: Türkiye-Brezilya Kahve Mukavelesi ve Modus Vivendi", *Selçuk Üniversitesi Türkiyat Araştırmaları Dergisi*, (54), 135-165.
- Sertel, S. & Ş. Yedek (2015), "Arşiv Belgelerine Göre Milli Şef Döneminde Türkiye-Belçika İlişkileri (1938-1950)", *The Journal of Academic Social Science Studies*, 33, 353-365.
- Sertel, S. (2015), "Demokrat Parti Döneminde Türkiye-Belçika İlişkileri", *Journal of Turkish Studies*, 10(1), 693-714.
- Simmons, B.A. (2005), "Rules over Real Estate: Trade, Territorial Conflict, and International Borders as Institution", *Journal of Conflict Resolution*, 49(6), 823-848.
- Singh, V. et al. (2024), "Do Geopolitical Risks Impact Trade Patterns in Latin America?", *Defence and Peace Economics*, 35(8), 1102-1119.
- Sönmezoğlu, F. (2015), *İki Savaş Sırası ve Arasında Türk Dış Politikası 1914-1945*, İstanbul: Der Yayınları.
- Stewart, R.B. (1937), "Instruments of British Policy in the Sterling Area", *Political Science Quarterly*, 52(2), 174-207.
- Tekeli, İ. & S. İlkin (2016), *İkinci Dünya Savaşı Türkiye'si II*, İstanbul: İletişim Yayıncılık.
- Tezel, Y.S. (2015), *Cumhuriyet Döneminin İktisadi Tarihi (1923-1950)*, İstanbul: Türkiye İş Bankası Kültür Yayınları.
- Tinbergen, J. (1962), *Shaping the World Economy: Suggestions for An International Economic Policy*, New York: Twentieth Century Fund.
- Tu, X. et al. (2020), "US-China Trade War: Is Winter Coming for Global Trade?", *Journal of Chinese Political Science*, 25, 199-240.
- TUIK Turkish Statistical Institute (2014), *Statistical Indicators 1923-2013*, Ankara.
- VanderLippe, J.M. (2001), "A Cautious Balance: The Question of Turkey in World War II", *The Historian*, 64(1), 63-80.
- Yay, G.G. (1998), "Atatürk Döneminde Para Politikası (1923-1938)", *Erdem*, 11(31), 289-320.
- Yotov, Y.V. (2022), "On The Role of Domestic Trade Flows for Estimating the Gravity Model of Trade", *Contemporary Economic Policy*, 40(3), 526-540.
- Yotov, Y.V. et al. (2016), *An Advanced Guide to Trade Policy Analysis: The Structural Gravity Model*, World Trade Organization.
- Zhang, Z. et al. (2022), "Geopolitical Risk Trends and Crude Oil Price Predictability", *Energy*, 258, 124824.

## Appendices

**Table: A1**  
**Event/Conflict List**

| Country       | Conflict                                                                | Years           |
|---------------|-------------------------------------------------------------------------|-----------------|
| France        | Minority and Foreign Schools                                            | 1926-1928       |
| France        | The accident between the French ship Lotus and the Turkish ship Bozkurt | 1926-1927       |
| France        | Nationalisation of Mersin-Tarsus-Adana Railway                          | 1929            |
| France        | The Hatay Issue                                                         | 1936-1939       |
| Germany       | The Chromium Issue                                                      | 1939            |
| Germany       | Invasion of Greece by Germany                                           | 1941            |
| Germany       | Cutting off Relations with Germany due to Pressure from the Allies      | 1945-1947       |
| Germany       | Türkiye's Declaration of War on Germany                                 | 1945            |
| Italy         | Second Italo-Ethiopian War                                              | 1935-1936       |
| Italy         | Dodecanese Islands                                                      | 1936            |
| Italy         | Italy's 'Mare Nostrum' Policy                                           | 1937-1938, 1941 |
| Italy         | Italian Invasion of Albania                                             | 1939            |
| Italy         | Greco-Italian War                                                       | 1940            |
| Japan         | Türkiye's Declaration of War on Japan                                   | 1945            |
| Soviet Russia | The Turkish Straits Crisis                                              | 1936-1950       |
| UK            | Mosul Question                                                          | 1923-1926       |
| UK            | The Political Rapprochement between Türkiye and Germany                 | 1941            |
| UK            | The Allied Pressure on Türkiye to Join Their Ranks                      | 1942-1945       |
| US            | The Political Rapprochement between Türkiye and Germany                 | 1941            |
| US            | The Allied Pressure on Türkiye to Join Their Ranks                      | 1942-1945       |

*Note: The events listed in the table represent the tensions Türkiye experienced in its bilateral relations during the analysis period. Based on these events, we constructed the bilateral tensions dummy variable, assigning it a value of 1 for the time intervals listed in the table and 0 for years with no tensions.*

*Source: Identified and compiled by the authors, primarily based on Oran (2018) and Sönmezoglu (2015). Additional references include Hale (2021), Criss (2017), VanderLippe (2001), Beck (1981), De Luca (1977) and Khadduri (1945). Further details are provided in Section 4.*

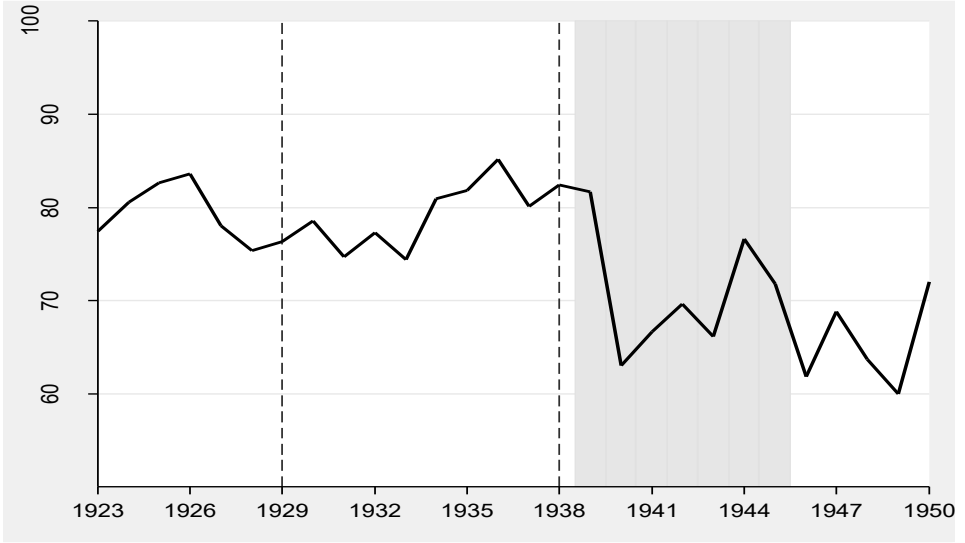
**Table: A2**  
**Bilateral Trade Agreements Signed by Türkiye and Their Duration (1923-1950)**

| Country     | The period of the Trade Agreement | Reference                            |
|-------------|-----------------------------------|--------------------------------------|
| Belgium     | 1927-1940                         | Ökçün & Ökçün (1974)                 |
|             | 1947-1950                         | Sertel & Yedek (2015), Sertel (2015) |
| Brazil      | 1933-1950                         | Sangüzel (2022)                      |
| Germany     | 1927-1938                         | Tezel (2015)                         |
|             | 1941-1944                         | Karavar (2019)                       |
|             | 1948-1950                         | Ökçün & Ökçün (1974)                 |
| US          | 1929-1950                         | Ökçün & Ökçün (1974)                 |
| UK          | 1930-1950                         | Ökçün & Ökçün (1974), Arslan (2022)  |
| France      | 1929-1950                         | Ökçün & Ökçün (1974)                 |
| Netherlands | 1926-1950                         | Ökçün & Ökçün (1974)                 |
| Spain       | 1935-1950                         | Ökçün & Ökçün (1974)                 |
| Sweden      | 1928-1950                         | Ökçün & Ökçün (1974)                 |
| Switzerland | 1927-1950                         | Ökçün & Ökçün (1974)                 |
| Italy       | 1929-1950                         | Ökçün & Ökçün (1974)                 |
| Japan       | 1931-1939                         | Ökçün & Ökçün (1974)                 |
| USSR        | 1928-1938                         | Ökçün & Ökçün (1974)                 |

*Note: We constructed the bilateral trade agreement variable used in the analyses by considering the various agreements Türkiye signed with its trading partners during the analysis period, including trade and navigation agreements, trade agreements, clearing agreements, and trade and payment agreements. It is an indicator variable that takes a value of 1 for the time intervals indicated in the table and 0 for the other years. The agreements and their respective durations were obtained from the sources listed in the table.*

*Source: Identified and compiled by the authors.*

**Figure: A1**  
**The Share of the Countries Used in the Analyses of Türkiye's Total Exports**



*Note: The figure illustrates the share of countries in Türkiye's total exports between 1923 and 1950. Vertical dashed lines mark the period of the Great Depression (1929-1939), while a grey-shaded area highlights the WWII era (1939-1945).  
Source: TUIK (2014) and Fouquin & Hugot (2016).*

**Figure: A2**  
**The Share of the Countries Used in the Analyses of Türkiye's Total Imports**



*Note: The figure illustrates the share of countries in Türkiye's total imports between 1923 and 1950. Vertical dashed lines mark the period of the Great Depression (1929-1939), while a grey-shaded area highlights the WWII era (1939-1945).*  
*Source: TUIK (2014) and Fouquin & Hugot (2016).*