

Tourism's “Financial Dutch Disease”: Regional evidence on foreign exchange abundance and local household saving preferences

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ABSTRACT

This study aims to examine the impact of increases in tourism-related foreign exchange inflows on individuals' financial behaviour in Türkiye. While numerous studies have examined the Dutch Disease in the real sector, limited studies have examined its effects on household investment behaviour specifically in the service sector. This phenomenon, referred to as the “Financial Dutch Disease”, is analysed in this study to show the impact of tourism intensity on individuals' demand for foreign exchange deposit accounts (FX deposit accounts) for a sample of 81 provinces in Türkiye for the period 2015–2023. The findings indicate a strong positive relationship between tourism growth and the share of FX deposit accounts. According to the main model, a one-unit increase in the number of foreign tourists per capita increases the FX deposit account share of total deposits in a province by an average of 4.35 percent. Conducted heterogeneity analyses indicate that this effect is more pronounced in financially less developed regions. Dynamic analyses indicate that the effect carries over to the following year but diminishes over time. These results clearly demonstrate that tourism-related foreign exchange abundance has led locals to resort to currency substitution, creating a form of “Financial Dutch Disease.” The study expands the Dutch Disease literature to include the financial consequences of tourism as a service sector and offers important implications for policymakers by highlighting the potential impact of tourism on regional financial stability.

Keywords: Financial Dutch Disease, Tourism Economics, Household Finance, Currency Substitution, Regional Economics

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1. Introduction

The tourism sector, by providing foreign exchange inflows for developing economies, is a driving force behind economic growth and contributes significantly to reducing unemployment, a structural problem (Liu et al., 2023; Song et al., 2012). Developing economies frequently face chronic current account deficits. In this context, tourism-related foreign exchange revenues play a crucial role in maintaining balance of payments through their positive contribution. The literature has empirically demonstrated the positive effects of tourism on income generation, employment creation, and infrastructure development in countries that attract tourists (Lindberg et al., 2022). However, the impact of increasing foreign exchange revenues on the regional financial system and the economic behavior of local people has not been adequately analysed.

The concept of "Dutch Disease" is defined as the large-scale export of natural resources such as oil and natural gas, which negatively impacts other manufacturing and industrial sectors within a country's economy, leading to undesirable effects on the overall economy (Corden & Neary, 1982; Frankel, 2012). The impact of the Dutch Disease on the economy, resulting from the discovery and intensive export of natural resources, appears to manifest in two main ways. The first is the resource mobilization effect, which is defined as the shift of labor and capital among the factors of production to the sector experiencing intensive growth. The second is the expenditure effect, which refers to the increase in the prices of non-tradable goods due to the overvaluation of the national currency due to increased foreign exchange earnings. While these effects are typically studied in the context of commodity exports such as oil, natural gas, and minerals (Bjørnland et al., 2019; Ismail, 2010), in recent years they have also been examined for different phenomena such as workers' remittances and service exports, which can be sources of foreign exchange in an economy (Levy, 2007; Rajan & Subramanian, 2011). Just as the discovery and export of fossil energy resources lead to a contraction in the manufacturing industry, remittances from workers also increase the real exchange rate, leading to higher prices for exported goods denominated in foreign currency, thus reducing industrialization, exports, and growth. Furthermore, the term "Dutch Disease" is also used today to describe the effects of capital flows (Ari & Özcan, 2012).

The rapid development of the tourism sector due to large inflows of foreign currency is a known economic phenomenon, leading to an increase in the real exchange rate of a destination. This situation causes products from other sectors, such as manufacturing and agriculture, to become more expensive for foreign buyers, leading to a decline in these sectors, unemployment, and economic imbalances. The negative effects of the Dutch Disease manifest as deindustrialization, lower growth, loss of international competitiveness, and a progressive deterioration of the trade balance (Nishkar Kumar & Patel, 2024). The main focus of this study is to determine whether the Dutch Disease is affecting the financial sector at a regional level, stemming from a labor-intensive service sector like tourism. Tourism, which is increasingly being expanded nationwide in Türkiye, can be considered a regional development sector concentrated in specific geographic regions and generating high foreign exchange earnings in these regions. The increasing amount of foreign currency is likely to change household savings habits in the region, leading them to shift their focus from local currency assets to foreign currency assets through the exchange rate substitution effect. This situation can be referred to as the "Financial Dutch Disease". This effect makes the local economy more vulnerable to possible exchange rate risks and may cause the effectiveness of the national monetary policy to differ regionally (Mishra et al., 2016).

A review of the literature reveals that studies in tourism economics have predominantly focused on real variables (Franco & Santos, 2021; Gössling et al., 2020). Studies on individual investments and the effect of exchange rate substitution have primarily aimed to identify the macroeconomic determinants of these preferences (Neanidis & Savva, 2022). We did not find any studies analyzing the impact of tourism intensity and high foreign exchange earnings on exchange rate substitution at the local level. Furthermore, how this effect varies across regions with different economic conditions (heterogeneity) is also an important research topic.

In this context, the study aims to determine the impact of tourism intensity on household Foreign Exchange Deposit Accounts (FX Deposits) in Türkiye's 81 provinces during the 2015-2023 period. The study's methodological contribution lies in its use of an instrumental variable strategy that accounts for the endogenous nature of tourism intensity. Coastline length and total number of protected areas, which are geographical and historical characteristics of provinces that remain constant over time and determine tourism potential, are used as valid instrumental variables. The study also contributes to the literature by examining how this impact varies according to the financial development and income levels of regions, as well as the dynamics of this impact over time.

The findings of the study reveal a strong and positive causal relationship between tourism and local financial dollarization. These results offer important implications that extend the Dutch Disease literature to include the regional financial impacts of tourism, a service sector. The second section of the study reviews the relevant literature. The third section describes the dataset and econometric methodology used in the analysis. The fourth section reports the empirical findings. The fifth section discusses the results, and the final section provides policy recommendations, limitations, and guidance for future research.

2. Theoretical Framework and Literature

This study is positioned at the intersection of three areas. This section, after explaining the theory and its applications, and its current state, includes studies examining the impact of tourism, individual investment preferences, and the dynamics of exchange rate substitution. The relevant literature is reviewed below under various headings.

Dutch Disease

The concept of the Dutch disease was first introduced to the literature in the 1960s to explain the contraction and decline in the Netherlands' manufacturing industry following the discovery of natural gas reserves. Corden and Neary (1982) theoretically defined this phenomenon using a general equilibrium model across three sectors: a sharply expanding resource sector, a shrinking manufacturing sector, and a non-tradable service sector. According to the model, a sudden increase in foreign exchange inflows reduces the export competitiveness of the tradable manufacturing sector through the expenditure effect, which depreciates the local currency. At the same time, labor and capital flow from the manufacturing sector to the booming sector due to the resource movement effect. As a result, the economy undergoes a structural transformation in favor of the resource and service sectors, detrimental to the manufacturing sector, which is crucial for long-term productivity growth (Sachs & Warner, 1995; Van der Ploeg, 2011).

The aforementioned theory appears to be particularly valid for many economies that have rapidly and unevenly become wealthy thanks to their natural resource enrichment over the last century. In this context, researchers have conducted studies supporting this notion for various countries that export natural resources, often in oil-rich countries (Bjørnland et al., 2019; Ismail, 2010). These studies have broadened the applicability of the theoretical framework by concluding that remittances can also exert similar pressure on the manufacturing industry in countries receiving foreign aid (Rajan & Subramanian, 2011) and that remittances can also exert similar pressure on the manufacturing industry (Acosta et al., 2009). Arı and Özcan (2012) determined in their study that remittances cause Dutch Disease in developing economies. Akça and Bal (2017) also determined that remittances cause Dutch Disease in a sample of nine countries with the highest remittances from overseas workers in the global economy. These studies demonstrate that the Dutch Disease is not a phenomenon specific to natural resources; different factors that generate large-scale and sustained foreign exchange inflows can produce similar outcomes. Investigating the regional impacts of tourism revenues concentrated in specific regions is crucial in this regard. Furthermore, the literature also provides preliminary evidence that tourism can crowd out manufacturing industries.

Tourism Economy: Beyond Real Effects

The tourism economics literature includes numerous studies highlighting the sector's positive impacts on economic growth, employment, income generation, and poverty reduction (Liu et al., 2023; Plzáková & Smeral, 2021; Song et al., 2012). The tourism-led growth hypothesis has been empirically tested through time series analysis for numerous countries (Nunkoo et al., 2020). Studies also highlight the potential negative impacts of tourism. Excessive tourism concentration can lead to environmental degradation, changes in the social fabric, and negative impacts on infrastructure (Fletcher et al., 2019).

Local prices are rising rapidly due to the Dutch Disease expenditure effect mechanism. Tourism increases demand for non-tradable goods and services, particularly accommodation, food, and local transportation. This increased demand, in turn, leads to higher prices in related sectors, which can increase the cost of living for local residents (Franco & Santos, 2021). This effect can be particularly devastating in regions with seasonal tourism activity. The reluctance of public service officials to work in these high-cost areas, despite their stable incomes, also reveals another dimension of the problem. It is frequently empirically demonstrated that housing prices in tourist areas are significantly higher than in non-tourist areas (Mikulić et al., 2021).

Capó et al. (2007) provide evidence that both the Balearic and Canary Islands are exhibiting symptoms of the Dutch disease, and that their economic growth may be jeopardized in the coming years as a result. The restructuring of production in both archipelagos resembles the processes followed by economies experiencing increased prosperity through the discovery and subsequent development of natural resources. The examples of the Balearic and Canary Islands are quite illustrative. The tourism boom of the early 1960s led to a significant increase in wealth through new recreational uses of the islands' natural coastal resources. Over the years, this led to a greater focus on tourism and non-tradable goods (services and construction), with industry and agriculture receiving only marginal attention. While population incomes have increased significantly as a result of this shift in production, some doubts have arisen about the long-term sustainability of these growth rates, not only due to the depletion of natural resources but also due to the low levels of education, training, innovation, and technological advancement associated with tourism specialization. Finally, it should be emphasized that the root of the Dutch Disease problem in tourism economies is not the abundance of natural resources or economic specialization. The real root lies in economic actors' inadequate attention to the determinants of long-term

economic growth. Regions or countries experiencing rapid growth in their tourism industries should properly assess the long-term consequences of specialization in tourism and Dutch disease and address the low propensity for innovation, education, and training. The need for a balanced economy to integrate agricultural economies with tourism (through marketing, the use of local products, farm tourism, etc.), and the need to bring new businesses, particularly those related to new technologies, into tourism areas, are integral to sustainable tourism development.

Nishkar Kumar and Patel (2024) examined the effects of Dutch disease on the economy of Fiji, a developing country. Their findings indicated that tourism affects real exchange rates, but this depends on the phase of the economy's business cycle and the direction of changes in tourism demand. In developing economies, positive tourism shocks lead to real exchange rate appreciation pressure during boom periods, while negative tourism shocks lead to greater real exchange rate depreciation pressure during recessions. Negative changes in tourism demand during boom periods and positive changes during recessions do not appear to affect Fiji's real exchange rates. The study's main contribution is the finding that while tourism increases real exchange rates, the effect depends on the phase of the business cycle. Chang et al. (2011) determined that using tourism-related externalities and tourist taxes to provide discounts to local residents would not be effective in preventing the Dutch disease. Instead, they determined that directing revenues from tourism taxes to the manufacturing sector would prevent the Dutch disease. Forsyth et al. (2014) determined that mining plays a significant role in the Australian economy, along with exports to China and Asia, and that this development in mining has an impact on the exchange rate, leading to a Dutch disease effect on the country's tourism sector. The study also revealed the Dutch disease impact of mining on the country's economy, as well as its impact on domestic and international tourism. Similarly, Pham et al. (2015) found a similar impact on the mining sector's Dutch disease impact on the Australian tourism sector.

A study conducted by Tuncay and Özcan (2020) examined whether tourism is a cause of Dutch disease in 17 Mediterranean countries. While it was determined that tourism is not a cause of Dutch disease in all countries, it was determined that it is a cause of Dutch disease in Albania, Bosnia and Herzegovina, Croatia, Egypt, Greece, Italy, Morocco, and Turkey. Ojaghlou (2019) examined the existence of Dutch disease in the Turkish economy, based on the tourism sector, which is important for the country's economy. He obtained evidence of Dutch disease in his study and determined that tourism has an impact on deindustrialization and unbalanced long-term growth. Holzner (2011) examined whether the long-term development of tourism in 134 countries causes Dutch disease in their economies. The study determined that there is no risk of a Beach Disease effect. It was determined that tourism does not cause Dutch disease, and that countries with economies dependent on tourism do not experience real exchange rate deterioration or deindustrialization, but have above-average economic growth rates. In national economies, investment in physical capital is found to be complementary to investment in tourism. Inchausti-Sintes (2015) determined that tourism in Spain represents a stimulus for the economy, and that the Dutch disease effect of tourism can act at a sectoral level, shifting resources to non-tradable sectors. This, in turn, can jeopardize productivity gains, lead to a permanent appreciation of the real exchange rate, and thus impact long-term economic growth.

Generally speaking, the vast majority of studies in the tourism economics literature focus on the real impacts of tourism. There is a dearth of studies on how tourism-related foreign exchange abundance affects local people's financial decisions, particularly their choice of currency for holding their savings. This study aims to fill this gap by arguing that tourism's impact on local prices may be a mechanism that can trigger households to turn to foreign currency as a hedge against declining purchasing power.

Exchange Rate Substitution

In developing countries, household investment choices are influenced by quite different dynamics than in developed countries (Campbell, 2016). In particular, high and persistent inflation and political/economic uncertainty cause households to seek alternative ways to preserve the value and purchasing power of their currency, potentially reducing demand for the local currency. This outcome, which arises when money, as a medium of exchange, loses its ability to serve as a store of value, is quite reasonable and natural. To cope with this situation, households may choose stable currencies with high convertibility and international validity. In the literature, this phenomenon is referred to as dollarization or currency substitution (Calvo & Vegh, 1992; Levy-Yeyati, 2021).

The determinants of dollarization and currency substitution are frequently discussed in academic studies. Empirical tests identify high inflation expectations, exchange rate volatility, interest rate differentials, and a lack of institutional quality as key factors driving dollarization (Beckerman & Solimano, 2002; Neanidis & Savva, 2022). Valev (2007) argues that dollarization exhibits persistent volatility during periods of high inflation and exchange rate volatility. It is also noted that once established, currency substitution can persist even when inflation declines due to hysteresis (Kokenyne et al., 2010). However, most of these studies focus on country-level macroeconomic factors. Less research has examined how regional differences within a country influence the tendency for currency substitution. Lewis (1994) showed that residents of border regions in Switzerland tend to use the neighboring country's currency more frequently. This suggests that geographical proximity and cross-border economic interaction can influence portfolio choices. This study also evaluates

the ability of tourism to act as a channel that effectively brings a region closer to the global economy and foreign currencies.

Microchannels of Tourism and Financial Dollarization

The root of the Financial Dutch Disease lies in foreign investment, large-scale foreign currency inflows, macroeconomic instability, and structural deterioration in the country's production structure (Botta, 2015). Financial markets are experiencing volatility due to the effects of the Dutch Disease. Tourism revenues, along with the perception of easy money, are creating a sense of ease among households. Consequently, the influence of this easy money perception can alter individuals' expectations, risk perceptions, and investment preferences, leading them to deviate from rationality in their financial decisions. While there are limited studies investigating this issue in the literature, its effects are mentioned indirectly (Bruno & Sachs, 1982; García-Cicco & Kawamura, 2015; Ojaghlu, 2019; Tuncay & Özcan, 2020).

Tourism activities and the influx of tourists into the country cause prices to rise, particularly in sectors such as accommodation, food and beverage, transportation, and real estate. In developing countries like Türkiye, inflation fluctuates over the years. Households use foreign currencies as a shield against inflation. For this reason, income from tourism activities is not converted into Turkish Lira. This leads to financial dollarization (Çamdibi & Demirci, 2024; Türkmen, 2023). A study examining the impact of tourism revenues on inflation in the Turkish economy mentions the existence of a positive effect (Şit & Şen, 2022). A similar study conducted specifically in Italy mentions a significant and positive impact of tourism activities on housing prices (Biagi et al., 2012). Specifically, research conducted separately in the provinces of Adana, Antalya, and Trabzon indicates that with the increase in tourism activities, local municipal resources and investment activities are shaped according to the expectations of tourists. It is stated that tourism activities create a negative perception in the socio-cultural structure of the public and that the increase in tourism revenues has a direct impact on local prices and costs (Cesur & Çeken, 2021; Kapan, 2018; Kızıldemir & Sarıışık, 2017). When researches are considered together, it can be said that the increase in tourism activities has a multifaceted impact on local prices. While tourism revenues contribute positively to the creation of new businesses, increased employment, and economic revitalization, they also increase production costs in many sectors and create inflationary pressure.

In developing economies, direct borrowing in foreign currency by households is a common occurrence (Beckmann & Stix, 2015). Households that directly access foreign currency through tourism revenues try to protect their earnings from exchange rate risk by not converting their foreign currency holdings into Turkish Lira. In fact, the reasons for this situation can be attributed to differences in individuals' levels of financial literacy and risk perceptions (Çiftci & Yıldız, 2014; Eryüzlü & Hopoğlu, 2020; Lee, 2024). Inflation, interest rates, and speculation expectations affect household demand for foreign currency. Households that borrow or hold foreign currency assets due to their lack of confidence in their own currency may be more vulnerable to macroeconomic shocks (Bernoth & Herwartz, 2021). Direct contact with foreign currency can affect household financial well-being both positively and negatively. Therefore, the proper management of household foreign currency demand and borrowing is critically important for financial stability at both individual and societal levels.

The fact that individuals have made the use of foreign currency a habit in their daily lives is an issue that needs to be considered and examined (Lin et al., 2019). With globalization, it is an undeniable fact that foreign currencies have surpassed local currencies and become a necessity (Lee, 2024). However, the normalization of this situation through environmental influences and societal norms brings about losses that are difficult to compensate for national economies. The influence of social networks, which makes the use of foreign currency a habit, leads to herd behavior among households. This is a consequence of societal transformation. This situation leads to the entrenchment of financial dollarization and causes countries' current account policies to become inadequate.

Tourism revenues do not cause the same level of dollarization in every region. General reasons for this include the financial depth and financial literacy levels of the regions. Differences in financial literacy levels across regions lead to the dollar being seen as the best investment vehicle, preventing households from turning to alternative investment options. Foreign currency is perceived as a hedge against inflation and exchange rate risk. Therefore, individuals tend to invest directly in foreign currency deposits without rational portfolio diversification (Guiso & Jappelli, 2008; Ize & Yeyati, 2003; Raheem & Ajide, 2021; Soydaş, 2023). Household inflation expectations, the dollar as a direct source of income, the herd behavior effect of mass media, and differences in financial literacy levels all play a critical role in the regional dollarization process of tourism revenues. Understanding the mechanisms of these channels contributes to establishing the theoretical foundations for the empirical findings in later stages of this study.

Gap in Literature and Contribution of the Study

An evaluation of Dutch Disease, tourism's economic affects and exchange rate substitution themes reveals a significant research gap. The Dutch Disease theory provides a theoretical framework for the potential negative effects of foreign

exchange inflows, and its application largely focuses on natural resources at the national level. In the tourism economy, the real effects of the sector are analyzed, while the effects on financial behavior are overlooked. The exchange rate substitution literature, however, generally focuses on macroeconomic determinants rather than regional dynamics. In this study, within the framework of Dutch Disease and theoretical discussions, the following hypotheses are tested.

H1: Increased tourism intensity has a positive and significant effect on financial dollarization at the regional level.

H2: Tourism's impact on dollarization is greater in regions with low financial development.

H3: The tourism-induced financial dollarization effect is dynamic. Shocks experienced in the previous period have a significant impact on deposit preferences in the current period.

By considering these three areas together, the study broadens the scope of the Dutch Disease framework by shifting it from natural resources to a service-based sector (tourism) and from the national to the regional level. By focusing on financial behavior (exchange rate substitution) rather than real sector effects, the concept of Financial Dutch Disease is tested regionally. Furthermore, for Türkiye, a developing economy, comprehensive regional evidence is presented on the effects of tourism on local financial markets and household behavior. The study also provides a more in-depth analysis by revealing the heterogeneous nature and dynamics of this effect.

3. Methodology

Research Model and Econometric Test

The primary objective of this study is to measure the impact of tourism intensity on exchange rate substitution at the provincial level. The following panel data regression model is used to test this relationship.

$$FX\ Deposit\ Account_Share_{it} = \beta_0 + \beta_1 Tourist_Density_{it} + \gamma' X_{it} + \alpha_i + \delta_t + \epsilon_{it} \quad (1)$$

In this model;

- “i” represents the province, “t” represents the years (2015-2023),
- $FX\ Deposit\ Account_Share_{it}$: Dependent variable, showing the percentage share of Foreign Exchange Deposit Accounts (FX Deposit Accounts) in total bank deposits in province i in year t,
- $\beta_1 Tourist_Density_{it}$: Independent variable, calculated by dividing the total number of foreign tourists visiting province i in year t by the total population of the province,
- X_{it} : Control variable vector that can affect household savings decisions and the economic structure of the province,
- α_i : Represents province fixed effects,
- δ_t : Represents year fixed effects,
- ϵ_{it} : Error term.

Estimating this model using a standard fixed effects (FE) method, while controlling for observable and unobservable time-invariant factors, fails to provide sufficient evidence for reliable causal inference. The fundamental problem that arises here is endogeneity. An increase or decrease in tourist numbers cannot be considered random. Tourists generally tend to prefer provinces with greater economic vibrancy, more developed infrastructure, and greater security. In this case, the observed positive relationship between tourism intensity and the FXDA share may stem not from tourism itself, but from a third factor affecting both (such as the province's overall development level). This could lead to biased and inconsistent estimations of the β_1 coefficient. To address this endogeneity issue, studies have adopted the instrumental variable (IV) approach. The instrumental variable (IV) strategy isolates the causal effect by using only the exogenous part of the change in the main independent variable (tourist density). A good instrumental variable must meet two fundamental conditions. The relevant conditions are listed below.

1. Relevance Condition: The instrumental variable must be strongly correlated with the endogenous variable, tourist density.
2. Exclusion Restriction Condition: The instrumental variable must not directly affect the dependent variable, the FXDA share, outside the tourist density channel.

For this purpose, the study uses two time-invariant geographical and historical features that satisfy these conditions. The relevant variables are as follows.

1. *Coastline Length (km)*: The length of a province's coastline creates a natural center of attraction, directly impacting its tourism potential. Yüncü et al. (2017) found that Türkiye's most visited places in terms of domestic and international tourist flows tended to be in coastal areas and especially international tourists travel more in the

southwest and the west coasts. Thus, the relevance condition is expected to be met. Because it is a geographical feature, it does not directly affect current household financial decisions. Its impact is only indirect, through tourism.

2. Total Number of Protected Areas: The number of registered archaeological, historical, or natural protected areas in a province reflects the province's cultural and historical richness and makes it a center of attraction for cultural tourism. Karagöz et al. (2022) showed that tourists are mostly visits natural and historical places of Türkiye. Karagöz and Ramkissoon (2025) also supported this by presenting that there are positive relations between heritage spaces and tourists' immersion and hedonia. These studies show a positive relation between tourist flows and historical and natural attractions that are mostly protected and registered areas. This supports the relevance condition. The existence of these protected areas is largely a result of historical processes and does not directly influence current portfolio choices.

Using these instrumental variables, the estimation process was conducted using the Two-Stage Least Squares (2SLS) method. The relevant stages are listed below.

Step One: A regression model was constructed based on tourist density, instrumental variables (coastal length, number of protected areas), and all other exogenous control variables.

$$Tourist_Density_{it} = \pi_0 + \pi_1 Coastline_Length_i + \pi_2 Numberof\ Protected_Areas_i + v_{it} \quad (2)$$

Step Two: The model 1 is estimated by substituting the tourist density ($Tourist_Density_{it}$) obtained and estimated from the step one into the main equation for the actual value. The coefficient β_1 in this second stage demonstrates the consistent and causal effect of tourism on the FX Deposit Account share.

Data Set and Variables

The study used a panel data set covering the years 2015-2023 for all 81 provinces of Türkiye. Definitions and data sources for the data are detailed in Table 1.

Table 1. Variables and Data Sources

Variable Name	Definition	Source
FX Deposit Share (%)	(Total FXDA in the province/Total deposits in the province) * 100	BRSA (BDDK)
Tourist Density	Number of foreign tourists visiting the province/Provincial population	MCT (KTB), TurkStat (TÜİK)
Coastline Length	Total coastline length of the province (km)	GDM (HGM)
Number of Protected Areas	Number of registered archeological, historical and natural sites in the province	MCT (KTB)
ln(GDP per Capita)	Natural logarithm of Gross Domestic Product per capita	TurkStat (TÜİK)
University Graduate Rate	The ratio of university graduates to the total population in the province	TurkStat (TÜİK)
Net Migration Speed	(In migration – Out migration)/Population * 1000	TurkStat (TÜİK)
Number of POS	Total number of POS devices in the province	ICC (BKM)
Number of ATM	Total number of ATM devices in the province	ICC (BKM)
Share of Agricultural Area	(Cultivated agricultural area/Total surface area of the province) * 100	TurkStat (TÜİK)

Source: Created by authors

The dependent variable, Foreign Exchange Deposit Account (FXDA) share, is the most common indicator of financial dollarization. The main independent variable, tourist density, measures the relative importance of tourism in the provincial economy. Control variables were included in the model to control for the province's economic development (GDP), human capital (percentage of university graduates), demographic dynamism (net migration rate), financial infrastructure (number of ATMs/POSs), and economic structure (share of agricultural land).

In this study, the exclusion constraint, which is critical for the validity of instrumental variables, was evaluated at both the conceptual and empirical levels. There is no direct economic mechanism by which geographical and historical features, such as coastline length and the number of protected areas, directly influence households' foreign currency deposit preferences. While these variables are not directly related to production structure, financial infrastructure, or monetary policy channels, their effects largely occur indirectly through tourism potential and tourist flows. Therefore, it is considered reasonable to assume that the effects of these instruments on the share of foreign currency deposits occur solely through the channel of tourism intensity.

Heterogeneity and Dynamic Impact Analysis

Considering that the impact of tourism on the FX market share may not be the same across all provinces, the interaction of the Tourist Density variable with other variables across the province was analyzed to determine the heterogeneity of the effect. To test for heterogeneity, interaction terms were created between the Tourist Density variable and the province's financial development level and income level. An index generated by the number of ATMs and POS devices per capita in the province is used as an indicator of financial development, while GDP per capita is used as the indicator of income.

To test the dynamic effect, the one-year lagged value of the main independent variable, Tourist Density, was added to the model to assess whether the impact of tourism shocks lingers into the following year and their persistence.

4. Findings

This section presents the empirical findings from the econometric analyses. First, the descriptive statistics of the variables are presented, followed by a summary of the panel regression model results. As presented in Figures 1 and 2, both tourist density and FXDA share are clearly visible along Türkiye's southern and western coastlines. Provinces such as Antalya, Muğla, Aydın, and İstanbul, in particular, have the highest values for both variables. This geographic overlap provides visual evidence of a potential relationship between the two variables. However, testing whether this relationship is causal requires econometric analysis and forms the subject of this study.

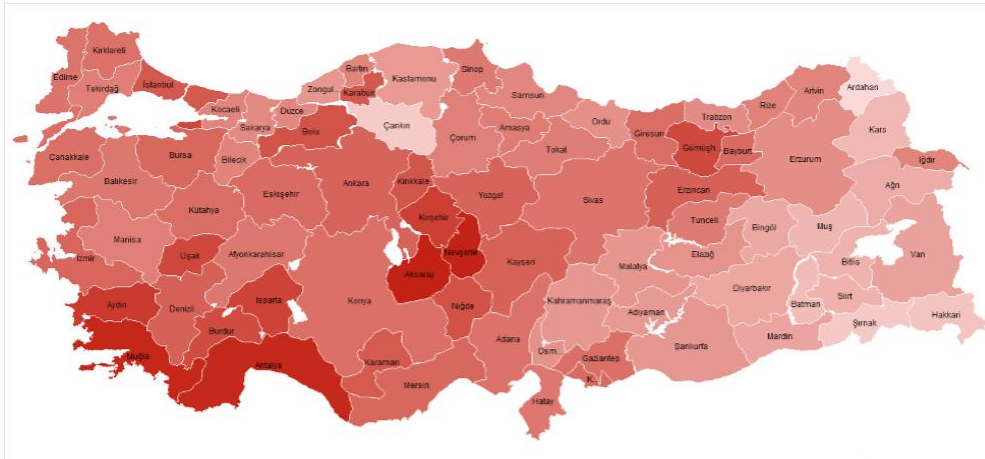


Figure 1. Average Foreign Exchange Deposit Share of Provinces

Source: Created by authors



Figure 2. Tourist Density of Provinces

Source: Created by authors

The spatial patterns observed in the maps show a tendency for both tourism density and foreign currency deposit shares to cluster geographically. This raises the possibility of spatial dependence. Since the main aim of the study is to define the causal relationship using an instrumental variable strategy, and because there are data limitations regarding the reliable definition of spatial weight matrices at the provincial level, formal spatial tests such as Moran's I were not applied. However, the findings were interpreted taking into account the reality of regional clustering, and it was emphasized that the results are particularly stronger for coastal regions with high tourism density.

Descriptive Statistics

Table 2 shows summary statistics for the key variables included in the analysis. The average share of foreign currency deposits in total deposits during the analysis period was 41.59%, but this ratio varied widely across provinces, ranging from 11.83% to 75.40%. This reveals significant regional heterogeneity in household savings preferences in Türkiye. Similarly, the number of foreign tourists per capita varies significantly across provinces. Thus, tourism appears to be a highly geographically concentrated sector. The high standard deviations in the instrumental variables of coastline length and the number of protected areas also confirm the differences in natural and historical richness among provinces.

Table 2. Descriptive Statistics

Variable Name	Obs.	Mean	Standard Dev.	Minimum	Maximum
FX Deposits Share (%)	682	41.59	15.21	11.83	75.40
Tourist Density	729	0.49	1.83	0.00	21.05
ln(GDP per Capita)	648	11.25	0.58	9.77	1,301.00
University Graduate Rate	648	12.01	4.88	4.11	29.54
Net Migration Speed	729	1.15	7.95	-33.50	45.18
Coastline Length	729	118.45	255.10	0.00	1,255.60
Number of Protected Areas	729	358.96	311.23	8	1,370

The high variability of the tourism intensity variable among provinces suggests that the results may be sensitive to extreme values. Therefore, alternative specifications were estimated using the natural logarithm of the tourism intensity variable. The findings obtained are largely consistent with the main results in terms of both sign and statistical significance. This supports the conclusion that the main findings are not driven solely by a small number of provinces with excessively high tourism intensity.

Econometric Model Results

Table 3 summarizes the main econometric results of the study. Three different models are presented in the table. Model (1) is a standard Fixed Effects (FE) model. Model (2) shows the first-stage results of the Instrumental Variable (2SLS-IV) model, which forms the basis of the study and addresses the endogeneity problem. Model (3) shows the second-stage results of the IV model, i.e., the causal effect.

Table 3. Panel Regression Results

Variable	Model (1) FXD Share (%) (Fixed Effects)	Model (2) Tourist Density (IV-1. Step)	Model (3) FXD Share (%) (IV-2. Step)
Tourist Density	1.89*** -0.45		4.35** -1.98
Coastline Length		0.003*** -0.001	
Number of Protected Areas		0.002*** -0.001	
ln(GDP per Capita)	12.55*** -2.11	0.85*** -0.25	10.98*** -2.34
University Graduate Rate	0.77*** -0.31	0.05** -0.02	0.65* -0.38
Net Migration Speed	0.15*** -0.04	0.01 -0.01	0.12** -0.05
Obs.	567	567	567
Province	81	81	81
R ² (within)	0.78	0.85	0.78
Instrumental Variable F-stat	-	31.45	-

Note: Values in parentheses indicate clustered (province-level) standard errors. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively. Province and year fixed effects were controlled for in all models.

Source: Created by authors

As seen in Model (1), the standard Fixed Effects Model shows a positive and highly statistically significant relationship between tourism density and the FXDA share. Model (2) displays the first-stage results of the IV strategy. Both Coastal Length and the Number of Protected Areas have a positive and statistically significant effect on Tourist Density. The F-statistic (31.45) obtained from the first-stage regression is well above the threshold of 10 suggested by Staiger and Stock (1997). This result indicates that the instruments used do not have a weak instrument problem and strongly explain tourism intensity. Due to the time-invariant nature of the instrument variables, over-identification tests (such as the Hansen J test) cannot be applied. However, this is a common and accepted limitation in the literature within panel fixed effects structures. The main finding in Model (3) is the coefficient of the Tourist Density variable. According to this result, holding all other factors constant, a one-unit increase in the number of foreign tourists per capita increases the FXDA share in that province by an average of 4.35 percentage points. This effect is both statistically significant (at the 5% level) and economically significant. This result indicates that tourism has a quantitatively significant and causal effect on local financial behavior.

Heterogeneity and Dynamic Effect Analyses

Findings of additional analyses conducted to understand whether the impact of tourism is the same in each province are presented in Table 4.

Table 4. Analysis of Heterogeneous and Dynamic Effects (IV Results)

Variable	Model (4) FXD Share (%)	Model (5) FXD Share (%)	Model (6) FXD Share (%)
Tourist Density	4.88** (2.05)	7.12*** (2.45)	3.98** (1.95)
Tourist Density x Financial Development Index		-2.85** (1.21)	
L.Tourist Density			1.95* (1.10)
Control Variables	Yes	Yes	Yes
Fixed Effects (Province and Year)	Yes	Yes	Yes
Obs.	567	567	512

Note: The Financial Development Index is a proxy for financial development generated from the number of ATMs and POS terminals. L represents the one-year lagged value of a variable. All models were estimated with IV. ***, **, and * indicate statistical significance at the 1%, 5%, and 10% levels, respectively.

Source: Created by authors

Model (4) shows the impact of tourist density on financial dollarization which is positive and significant at 5% level, within this finding H1 is accepted that tourism intensity has a positive and significant effect on financial dollarization. Model (5) shows that the impact of tourism varies according to the level of financial development. The coefficient of the interaction term is negative and significant; suggesting that the positive impact of tourism on dollarization is stronger in less financially developed regions. Based on this finding, H2 is accepted which is the tourism's impact on dollarization in low financial developed regions is greater. Model (6) examines the dynamic effect. While the coefficient for the current year's tourist density remains positive and significant, the coefficient for the previous year's tourist density is also positive and statistically significant. Within this, H3 is accepted that tourism-induced financial dollarization is dynamic. This finding suggests that the impact of the tourism shock carries over to the following year but diminishes over time.

5. Discussion

The empirical findings of this study strongly support the initially proposed Financial Dutch Disease hypothesis. Tourism generates a concentrated inflow of foreign currency in specific regions, causing households to shift their savings from domestic currency to foreign currency. The findings of this study support the traditional Dutch Disease literature (Corden & Neary, 1982; Frankel, 2012) and extend it in two areas. First, they demonstrate that this effect also applies to the service sector. Second, they reveal the impact on the real sector (resource effect in the form of a decline in the manufacturing industry) and the financial sector (household portfolio choices) as a saving preference rather than a spending effect. This suggests that the structural transformations brought about by a plethora of foreign currency can profoundly affect not only factors of production but also household financial behavior. The results show that the effects of resource wealth on financial development are complex and consistent with studies that bring up the concept of financial curse (Bhattacharyya & Hodler, 2014; Odhiambo, 2009). Raheem and Ajide (2021) showed that tourism income of a country has positive impact on dollarization. In line with this, our study supports the idea that tourism has an impact on dollarization, while also presenting evidence suggesting that tourism has effects related to the Financial Dutch Disease.

In Türkiye, starting in 2017, while expansionary fiscal policies prioritized economic growth, monetary policy also supported these policies. However, the implemented monetary policy was insufficient to suppress aggregate demand and curb rising dollarization. While the monetary policy failed to reduce inflation, it can be argued that it contributed to economic growth. During this period, which the study is also covered, the real sector was supported, particularly through low interest rates under the Credit Guarantee Fund. These policies, which enabled the economy to grow beyond its potential, also brought with them certain risks. The budget deficit increased significantly during this period. Furthermore, savings shifted significantly to foreign currency deposit accounts. Thus, dollarization accelerated in the country, and the Credit Default Swap (CDS) premium increased significantly. In such a fragile environment, the Turkish economy experienced a currency shock in August 2018 (Akkoç, 2023). Foreign currency, perceived as a hedge against inflation, and used as a speculative earning tool (Sönmezer & Çelik, 2019), can also be seen as an investment tool. In addition, local price pressures are justification for turning to foreign currencies. The instinctive use of foreign currency in relevant regions, such as herd behavior, is also a reason for turning to foreign currency. Furthermore, price volatility in financial instruments such as stocks leads households to hold foreign currency for investment purposes, resulting in foreign currency savings. Historically, the habit of using foreign currency is also considered among the reasons for saving. Taken together, it can be argued that tourism, especially during periods of currency shocks, exacerbates the effects of these

shocks and increases dollarization behavior. When the findings from the heterogeneity analysis (Model 5) are evaluated, the stronger impact of tourism in less financially developed regions may indicate that households in these regions struggle to find attractive Turkish Lira-denominated investment alternatives. In areas with shallow financial systems, households may turn to foreign currency as the easiest and most accessible way to hedge against inflation or exchange rate risk. This supports similar results with studies suggesting that financial development can act as a barrier against currency shocks (Aghion et al., 2009).

The empirical results are consistent with studies indicating that tourism increases local prices (Franco & Santos, 2021; Mikulić et al., 2021). Local inflation caused by tourism (especially in non-tradable sectors such as housing and services) reduces the purchasing power of the Turkish Lira in a region. As a rational response, local households may turn to foreign currency as an inflation hedge to preserve the value of their savings. Therefore, the findings confirm the national inflation-focused arguments of the currency substitution literature (Levy-Yeyati, 2021; Neanidis & Savva, 2022) on a regional basis.

The fact that the coefficient in the IV model (4.35) is significantly larger than the coefficient in the standard FE model (1.89) can be interpreted as the standard FE model underestimating the true impact of tourism due to measurement errors or omitted variable bias. The IV approach corrects for this bias, providing a more accurate estimate. Furthermore, this estimated impact can be interpreted as being valid for compatible provinces whose tourism derives largely from their geographical and historical advantages (i.e., instrumental variables). In this context, the relevant provinces (such as Antalya, Muğla, and İzmir) stand out as the most exposed to tourism shocks and therefore the most likely to change their behavior. Therefore, a larger IV coefficient indicates a marginal effect in places where the impact of tourism is most intense. These findings suggest that intense dollarization makes a region less sensitive to the shock-absorbing effects of national monetary policy, increasing financial vulnerability to sudden exchange rate movements (Mishra et al., 2016).

6. Conclusion and Recommendations

The concept of the Dutch Disease was introduced to the literature in the 1960s and has been tested in various countries by different researchers in subsequent years. Generally, the concept is based on the idea that the overvaluation of the local currency due to large influxes of foreign capital leads to a decrease in the competitiveness of the industrial sector. This situation can result in negative consequences such as a contraction in the manufacturing sector and a decrease in productivity. The concept focuses particularly on how exchange rate volatility structurally affects sectors over time. For countries, such an effect on sectors like manufacturing, which are supported by development-based policies, significantly impacts their level of development. Many different researchers have analyzed the concept using different years and models, and have offered policy recommendations for development and progress.

This study examined the impact of tourism-related foreign exchange inflows on household savings preferences at the provincial level in Türkiye. Using a robust instrumental variable strategy, it empirically demonstrated that tourism intensity significantly increases financial dollarization at the local level. The main conclusion of the study is the finding that a one-unit increase in the number of tourists per capita increases the share of FX deposits in total deposits by approximately 4.35 percentage points. The study expanded the scope of the Dutch Disease theory from the real sector to the financial sector and from commodity exports to services exports. By introducing the concept of the Financial Dutch Disease, it demonstrated how large-scale remittance inflows can shape not only the macroeconomic balance but also household behavior at the micro level.

Contributions to Practice and Policy Implications

While the tourism sector undoubtedly provides significant benefits, it may affect economy adversely on regional and country level financial stability. On the one hand, tourism offers benefits to the economy; on the other hand, its tendency to increase dollarization cannot be ignored. Increased dollarization in high-tourism regions can make these regions more vulnerable to exchange rate shocks. Therefore policymakers need to be careful when formulating policies and strike a balance between positive and negative effects of tourism. In regions heavily dependent on tourism, policies that encourage the development of other tradable sectors, such as manufacturing or technology, can mitigate effects similar to the Dutch Disease. This both diversifies the economic structure and reduces the financial pressure created by a single channel of foreign exchange inflow.

To minimize the effects of the Financial Dutch Disease, policymakers need to introduce new, targeted investment instruments to the local population. Currency-protected deposits, implemented to combat exchange rate volatility, as well as incentives and tax advantages for Turkish Lira-denominated assets, are cited as examples of such policies. For example, in tourism regions, exchange rate-protected deposit accounts could continue to be offered as an alternative to household foreign currency deposit accounts. However, this investment instrument should be subject to certain conditions to prevent its spread throughout the country. Preferential tax treatment and medium-term bonds may be the ways to de-dollarization

(Kokenyne et al., 2010). Tax advantages for Turkish Lira deposits contrary additional taxes for sales from FXDA profits may be provided in the tourism regions. Alternatively, inflation-indexed bonds denominated in Turkish Lira could be issued specifically for tourism-heavy provinces. Furthermore, development agencies could prioritize businesses holding assets in Turkish Lira in their projects. Financial literacy programs and modules should be encouraged to help local populations better manage exchange rate risk. Furthermore, the development of attractive alternative investment instruments denominated in Turkish Lira and providing protection against inflation can reduce the tendency toward dollarization. As heterogeneity analyses indicate, such policies are particularly urgent in less financially developed regions.

Limitations and Future Research

As with any study, this one has some limitations. The data used in the analysis covers only registered deposits in the banking system. Unregistered foreign currency and gold savings, particularly those under the mattress, cannot be included in the analysis. While this amount is anticipated to be high for the Turkish economy, it is known that there are no significant regional differences. The impossibility of measuring foreign currency assets, as well as the inability to measure the effects of uncertainty resulting from the COVID-19 shock, financial crises, and wars, are also considered limitations. Other limitation of the study is the period of the study. The study period can be extended by accessing detailed data.

Future research could expand on this topic in several directions. Using household-level survey data, individual motivations behind portfolio decisions could be examined in greater depth. Another way to prove the tourism-induced Financial Dutch Disease, the cities may be grouped and tested with alternative tests and models to show more evidence. Future studies can use also this approach in preventing additional evidence. Microdatasets could be used to examine how the impact is decomposed at the household and firm levels. Furthermore, the impact of tourism on financial indicators other than the FX deposit share could be investigated using a similar causal framework. This study reveals the relationship between tourism and dollarization using provincial-level data. In this way, the issue referred to as the "Dutch Disease" is tested regionally using official data. However, as previously stated, this interaction is proven by official data. A more in-depth examination of the behavioral processes underlying households' justifications for dollarization is needed. In this context, the subjective inflation expectations of households in tourism regions, whether social networks create a "herd behavior" in individuals' foreign currency investments, and the reasons why individuals who directly earn foreign currency income from the tourism sector hold onto their foreign currency are issues that need to be investigated. Future research is recommended to focus on these issues.

References

- Acosta, P. A., Lartey, E. K., & Mandelman, F. S. (2009). Remittances and the Dutch Disease. *Journal of International Economics*, 79(1), 102-116. <https://doi.org/10.1016/j.jinteco.2009.06.007>
- Aghion, P., Bacchetta, P., Ranciere, R., & Rogoff, K. (2009). Exchange rate volatility and productivity growth: The role of financial development. *Journal of Monetary Economics*, 56(4), 494-513. <https://doi.org/10.1016/j.jmoneco.2009.03.015>
- Akça, E. E., & Bal, H. (2017). Yurtdışı işçi gelirleri ve Hollanda Hastalığı: Seçilmiş ülkeler için bir panel veri analizi. *Eskişehir Osmangazi Üniversitesi İktisadi ve İdari Bilimler Dergisi*, 12(2), 49-64. <https://doi.org/10.17153/oguiibf.310348>
- Akkoç, S. (2023). 2018 Kur şoku ve Türkiye ekonomisine yansımaları. *International Review of Economics and Management*, 11(2), 75-96. <https://doi.org/10.18825/iremjournal.1366215>
- Arı, A., & Özcan, B. (2012). Hollanda Hastalığı: Gelişmekte olan ülkeler üzerine bir uygulama. *Sosyoekonomi*, 18(18), 153-172. <https://doi.org/10.17233/se.30588>
- BDDK (2025). Bankacılık Düzenleme ve Denetleme Kurumu, <https://www.bddk.org.tr/bultenfinturk> (accessed: 10.07.2025)
- Beckerman, P., & Solimano, A. (2002). Crisis and Dollarization in Ecuador: Stability, Growth, and Social Equity. USA: The World Bank. <https://elischolar.library.yale.edu/ypfs-documents/14915>
- Beckmann, E., & Stix, H. (2015). Foreign currency borrowing and knowledge about exchange rate risk. *Journal of Economic Behavior & Organization*, 112, 1-16. <https://doi.org/10.1016/j.jebo.2014.12.015>
- Bernoth, K., & Herwartz, H. (2021). Exchange rates, foreign currency exposure and sovereign risk. *Journal of International Money and Finance*, 117, 102454. <https://doi.org/10.1016/j.jimonfin.2021.102454>
- Bhattacharyya, S., & Hodler, R. (2014). Do natural resource revenues hinder financial development? The role of political institutions. *World Development*, 57, 101-113. <https://doi.org/10.1016/j.worlddev.2013.12.003>
- Biagi, B., Brandano, M. G., & Lambiri, D. (2012). Does tourism affect house prices? Some evidence from Italy. In *Contributi di ricerca CRENoS* 27, 1-34).

- Bjørnland, H. C., Thorsrud, L. A., & Torvik, R. (2019). Dutch disease dynamics reconsidered. *European Economic Review*, 119, 411-433. <https://doi.org/10.1016/j.euroecorev.2019.07.016>
- BKM (2025). Bankalararası Kart Merkezi, <https://bkm.com.tr/> (accessed: 08.07.2025)
- Botta, A. (2015). The macroeconomics of a financial Dutch disease. *Levy Economics Institute of Bard College Working Paper*, 850.
- Bruno, M., & Sachs, J. (1982). Energy and resource allocation: A dynamic model of the “Dutch Disease”. *The Review of Economic Studies*, 49(5), 845-859. <https://doi.org/10.2307/2297191>
- Calvo, G. A., & Vegh, C. A. (1992). Currency substitution in developing countries: An introduction. *IMF Working Paper*. <https://doi.org/10.5089/9781451845884.001>
- Campbell, J. Y. (2016). Restoring rational choice: The challenge of consumer financial regulation. *American Economic Review*, 106(5), 1-30. <https://doi.org/10.1257/aer.p20161127>
- Capó, J., Font, A. R., & Nadal, J. R. (2007). Dutch disease in tourism economies: Evidence from the Balearics and the Canary Islands. *Journal of Sustainable Tourism*, 15(6), 615-627. <https://doi.org/10.2167/jost698.0>
- Cesur, E., & Çeken, H. (2021). Trabzon yerel halkının turizm algısında turist profilinin rolü: Arap turist profili. *Balıkesir Üniversitesi Sosyal Bilimler Enstitüsü Dergisi*, 24(46-1), 1313-1331. <https://doi.org/10.31795/baunsobed.1022381>
- Chang, J.-J., Lu, L.-J., & Hu, S.-W. (2011). Congestion externalities of tourism, Dutch disease and optimal taxation: Macroeconomic implications. *Economic Record*, 87(276), 90-108. <https://doi.org/10.1111/j.1475-4932.2010.00680.x>
- Corden, W. M., & Neary, J. P. (1982). Booming sector and de-industrialisation in a small open economy. *The Economic Journal*, 92(368), 825-848. <https://doi.org/10.2307/2232670>
- Çamdibi, A. M., & Demirci, S. (2024). Türkiye ekonomisinde dolarizasyon ve reel kur ilişkisi. *EKOIST Journal of Econometrics and Statistics*, 40, 199-207. <https://doi.org/10.26650/ekoist.2024.40.1467704>
- Çiftci, F., & Yıldız, R. (2014). Dış ticarete kur riski yönetimi: Temsili bir türk dış ticaret firması için uygulama örnekleri. *Finansal Araştırmalar ve Çalışmalar Dergisi*, 5(9), 93-112.
- Eryüzü, H., & Hopoğlu, S. (2020). Döviz Cinsi Krediler Bir “Döviz Riski” Azaltma Aracı Mıdır? 2003-2018 Türkiye Analizi. *Manisa Celal Bayar Üniversitesi Sosyal Bilimler Dergisi*, 18(Özel Sayı), 45-55. <https://doi.org/10.18026/cbayarsos.491511>
- Fletcher, R., Murray Mas, I., Blanco-Romero, A., & Blázquez-Salom, M. (2019). Tourism and degrowth: an emerging agenda for research and praxis. *Journal of Sustainable Tourism*, 27(12), 1745-1763. <https://doi.org/10.1080/09669582.2019.1679822>
- Forsyth, P., Dwyer, L., & Spurr, R. (2014). Is Australian tourism suffering Dutch disease? *Annals of Tourism Research*, 46, 1-15. <https://doi.org/10.1016/j.annals.2013.12.003>
- Franco, S. F., & Santos, C. D. (2021). The impact of Airbnb on residential property values and rents: Evidence from Portugal. *Regional Science and Urban Economics*, 88, 103667. <https://doi.org/10.1016/j.regsciurbeco.2021.103667>
- Frankel, J. A. (2012). The natural resource curse: A survey of diagnoses and some prescriptions. *HKS Faculty Research Working Paper Series RWP12-014*, John F. Kennedy School of Government, Harvard University.
- García-Cicco, J., & Kawamura, E. (2015). Dealing with the Dutch disease: Fiscal rules and macro-prudential policies. *Journal of International Money and Finance*, 55, 205-239. <https://doi.org/10.1016/j.jimonfin.2015.02.009>
- GDM (HGM) (2025). Harita Genel Müdürlüğü, <https://www.harita.gov.tr/> (accessed: 09.07.2025)
- Gössling, S., Scott, D., & Hall, C. M. (2020). Pandemics, tourism and global change: A rapid assessment of COVID-19. *Journal of Sustainable Tourism*, 29(1), 1-20. <https://doi.org/10.1080/09669582.2020.1758708>
- Guiso, L., & Jappelli, T. (2008). Financial literacy and portfolio diversification. *European University Institute, Economics Working Papers*.
- Holzner, M. (2011). Tourism and economic development: The beach disease? *Tourism Management*, 32(4), 922-933. <https://doi.org/10.1016/j.tourman.2010.08.007>
- Inchausti-Sintes, F. (2015). Tourism: Economic growth, employment and Dutch Disease. *Annals of Tourism Research*, 54, 172-189. <https://doi.org/10.1016/j.annals.2015.07.007>
- Ismail, K. (2010). The structural manifestation of the ‘Dutch disease’: The case of oil exporting countries. *IMF Working Paper*, WP/10/103. <https://doi.org/10.5089/9781455200627.001>
- Ize, A., & Yeyati, E. L. (2003). Financial dollarization. *Journal of International Economics*, 59(2), 323-347. [https://doi.org/10.1016/S0022-1996\(02\)00017-X](https://doi.org/10.1016/S0022-1996(02)00017-X)
- Kapan, K. (2018). Turizm ve rekreasyon faaliyetlerinin ekonomi üzerindeki etkileri: Antalya örneği. *Journal of Geography*, 37, 47-56. <https://doi.org/10.26650/JGEOG2018-0004>

- Karagöz, D., Günay Aktaş, S., & Mert Kantar, Y. (2022). Spatial analysis of the relationship between tourist attractions and tourist flows in Turkey. *European Journal of Tourism Research*, 31, 3102. <https://doi.org/10.54055/ejtr.v31i.2745>
- Karagöz, D., & Ramkissoon, H. (2025). The effect of heritagescapes on immersion and hedonia: the moderating role of visitor type. *International Journal of Tourism Research*, 27: e70026. <https://doi.org/10.1002/jtr.70026>
- Kızıldemir, Ö., & Sarıışık, M. (2017). Turizm endüstrisinin ekonomik etkilerinin bölgesel kalkınmaya etkileri: adana’da yerel paydaşlar üzerine bir araştırma. *Uluslararası Ticaret ve Ekonomi Araştırmaları Dergisi*, 1(2), 38-58.
- Kokenyne, A., Ley, J., & Veyrune, R. (2010). Dedollarization. IMF Working Paper, WP/10/188.
- KTB (2025). Kültür ve Turizm Bakanlığı, Turizm İstatistikleri, <https://yigm.ktb.gov.tr/TR-9851/turizm-istatistikleri.html> (accessed: 10.07.2025)
- Lee, A. S. (2024). Why do emerging economies borrow in foreign currency? The role of exchange rate risk. *The Role of Exchange Rate Risk* (October 01, 2024).
- Levy, S. (2007). Public investment to reverse Dutch Disease: The case of Chad. *Journal of African Economies*, 16(3), 439-484. <https://doi.org/10.1093/jae/ejl043>
- Levy-Yeyati, E. (2021). Financial dollarization and de-dollarization in the new millennium. Department of Economics Working Papers wp_gob_2021_02, Universidad Torcuato Di Tella. https://ideas.repec.org/p/udt/wpecon/wp_gob_2021_02.html
- Lewis, K. K. (1994). Puzzles in international financial markets. NBER Working Paper Series. Working Paper No: 4951. https://www.nber.org/system/files/working_papers/w4951/w4951.pdf
- Lin, L.-F., Li, Y.-M., & Shih, W.-C. (2019). A social recommendation mechanism for P2P currency exchange. In 2019 8th International Congress on Advanced Applied Informatics (IIAI-AAI) (pp. 99-102). IEEE. <https://doi.org/10.1109/IIAI-AAI.2019.00030>
- Lindberg, K., Munanura, I. E., Kooistra, C., Needham, M. D., & Ghahramani, L. (2022). Understanding effects of tourism on residents: A contingent subjective well-being approach. *Journal of Travel Research*, 61(2), 346-361. <https://doi.org/10.1177/0047287520988912>
- Liu, Y., Cheng, X., Liao, S. S., & Yang, F. (2023). The impact of COVID-19 on the tourism and hospitality industry: Evidence from international stock markets. *The North American Journal of Economics and Finance*, 64, 101875. <https://doi.org/10.1016/j.najef.2022.101875>
- Lusardi, A., & Mitchell, O. S. (2014). The economic importance of financial literacy: Theory and evidence. *Journal of Economic Literature*, 52(1), 5-44. <https://doi.org/10.1257/jel.52.1.5>
- Mikulić, J., Vizek, M., Stojčić, N., Payne, J. E., Časni, A. Č., & Barbić, T. (2021). The effect of tourism activity on housing affordability. *Annals of Tourism Research*, 90, 103264. <https://doi.org/10.1016/j.annals.2021.103264>
- Mishra, P., Montiel, P., Sengupta, R. (2016). Monetary transmission in developing countries: Evidence from India. In: Ghate, C., Kletzer, K. (eds) *Monetary Policy in India*. Springer, New Delhi. https://doi.org/10.1007/978-81-322-2840-0_3
- Neanidis, K. C., & Savva, C. S. (2022). The currency composition channel of monetary policy and the role of macroprudential regulation. <http://dx.doi.org/10.2139/ssrn.3883456>
- Nishkar Kumar, N., & Patel, A. (2024). A test of the tourism Dutch disease hypothesis in developing countries. *Journal of Air Transport Management*, 116, 102577. <https://doi.org/10.1016/j.jairtraman.2024.102577>
- Nunkoo, R., Seetanah, B., Jaffur, Z. R. K., Moraghen, P. G. W., & Sannassee, R. V. (2020). Tourism and economic growth: A meta-regression analysis. *Journal of Travel Research*, 59(3), 404-423. <https://doi.org/10.1177/0047287519844833>
- Odhiambo, N. M. (2009). Finance-growth-poverty nexus in South Africa: A dynamic causality linkage. *The Journal of Socio-Economics*, 38(2), 320-325. <https://doi.org/10.1016/j.soec.2008.12.006>
- Ojaghlou, M. (2019). Tourism-led growth and risk of the Dutch Disease: Dutch Disease in Turkey. *International Business Research*, 12(7), 103. <https://doi.org/10.5539/ibr.v12n7p103>
- Pham, T., Jago, L., Spurr, R., & Marshall, J. (2015). The Dutch Disease effects on tourism – The case of Australia. *Tourism Management*, 46, 610-622. <https://doi.org/10.1016/j.tourman.2014.08.014>
- Plzáková, L., & Smeral, E. (2021). Impact of the COVID-19 crisis on European tourism. *Tourism Economics*, 28(1), 91-109. <https://doi.org/10.1177/13548166211031113>
- Raheem, I. D., & Ajide, K. B. (2021). The journey towards dollarization: The role of the tourism industry. *Current Issues in Tourism*, 24(22), 3182-3188. <https://doi.org/10.1080/13683500.2020.1863929>
- Sachs, J. D., & Warner, A. M. (1995). Natural resource abundance and economic growth. NBER Working Paper, No. 5398. <https://doi.org/10.3386/w5398>

- Song, H., Dwyer, L., Li, G., & Cao, Z. (2012). Tourism economics research: A review and assessment. *Annals of Tourism Research*, 39(3), 1653-1682. <https://doi.org/10.1016/j.annals.2012.05.023>
- Soydaş, Ş. S. (2023). Finansal bilgi düzeyinin finansal yönetim davranışı ve yatırım davranışına etkisi. *İşletme Araştırmaları Dergisi*, 15(4), 2816-2822. <https://doi.org/10.20491/isarder.2023.1750>
- Sönmezer, S., & Çelik, İ. E. (2019). Factors causing change in foreign exchange deposits in an emerging economy: Turkey case. *Finansal Araştırmalar ve Çalışmalar Dergisi*, 11(21), 264-286. <https://doi.org/10.14784/marufacd.623408>
- Staiger, D., & Stock, J. H. (1997). Instrumental variables regression with weak instruments. *Econometrica*, 65(3), 557-586. <https://doi.org/10.2307/2171753>
- Şit, M., & Şen, A. (2022). Türkiye ekonomisinde turizm gelirleri ve enflasyon ilişkisinin ampirik analizi. *Turizm Akademik Dergisi*, 9(1), 209-218.
- Tuncay, N., & Özcan, C. C. (2020). The effect of Dutch disease in the tourism sector: The case of Mediterranean countries. *Tourism and Hospitality Management*, 26(1), 97-114. <https://doi.org/10.20867/thm.26.1.6>
- TÜİK (2024). Türkiye İstatistik Kurumu, <https://data.tuik.gov.tr/> (accessed: 11.07.2025)
- Türkmen, N. C. (2023). Ekonomik krizler ve pandeminin Türk turizm sektörüne etkilerinin incelenmesi. *Journal of Tourism & Gastronomy Studies*, 11(4), 3510-3535. <https://doi.org/10.21325/jotags.2024.1354>
- Valev, N. T. (2007). The hysteresis of currency substitution: Currency risk vs network externalities. *Andrew Young School of Policy Studies Research Paper Series No. 07-23*. <http://dx.doi.org/10.2139/ssrn.989053>
- Van der Ploeg, F. (2011). Natural resources: Curse or blessing? *Journal of Economic Literature*, 49(2), 366-420. <https://doi.org/10.1257/jel.49.2.366>
- Yüncü, D., Günay, S., & Kantar, Y. M. (2017). Spatial relationship of tourist distribution in Turkey. In: Saufi, A., Andilolo, I., Othman, N., Lew, A. (eds) *Balancing Development and Sustainability in Tourism Destinations*. Springer, Singapore. https://doi.org/10.1007/978-981-10-1718-6_32