Tourism as an International Trade Category: Evidence from the European Union

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The tourism industry is expanding globally, and currently represents the third largest sector of the EU economy. However, tourism as a category of international trade has mostly remained unstudied. This study meets that need and has fulfilled the following objectives: to assess the contribution of the tourism sector to GDP in the EU member states and its relevance in international trade, and to verify the applicability of theoretical concepts of international trade to the tourism sector. This study has revealed that the share of tourism in country's GDP and exports is related to the existence of comparative advantages. In the context of Ricardian and Heckscher-Ohlin models, it has been shown that comparative advantages and factor endowments are key determinants of international trade, as the exports and imports of travel reflect them. Moreover, it has been determined that geographic location is also an important contributor to a nation's comparative advantages. These results can provide a new insight into tourism as an important export industry for individual European economies. The original contribution of this paper is that it provides a complex overview of the contribution of international tourism to the EU economies, and it extends the empirical literature in verifications of the applicability the classic theories of international trade to the EU tourism sector.

Keywords: tourism, GDP, EU, international trade, BoP, comparative advantage, Balassa index.

Introduction

Despite occasional fluctuations, the tourism industry has been dynamically developing throughout the past decade. Likewise, over the past six decades, tourism has experienced tremendous growth from 25 million international tourist arrivals in 1950 (1% of the world's population), to 1,035 million in 2012 (14.7% of the world population) (Population Reference Bureau, 2012). The substantial growth of tourism activity makes it one of the most remarkable economic and social phenomena of the past century (UNWTO, 2008).

As an internationally traded service, tourism has become one of the world's major trade categories. According to recent UNWTO statistics, tourism exports account for 30% of the world's exports of commercial services and 6% of overall exports of goods and services (UNWTO, 2013). The impacts of tourism run deep into the global economy, as it stimulates the development of accommodation, as well as transportation infrastructure.

Among the world's regions, Europe is a leading tourism destination. Notwithstanding the fact that tourism is often placed among the world's largest

economic industries, there is a lack of publications focused on the evaluation of tourism as a category of international trade. Therefore, this study has the following objectives: to assess the contribution of the tourism sector to GDP in the European Union (EU) member states and its relevance in international trade, and to verify the applicability of theoretical concepts of international trade to the EU tourism sector. Through the use of a balance-of-payments approach and the analysis of the major theories of international trade, the above-mentioned objectives will be achieved. In this research, 25 EU countries (EU-25) were analysed. The choice of the countries was made because all of them have been EU members since 2004, which thus offers a consistent framework of harmonized statistical data for analysis.

Background

Overview of European Tourism Industry

In 2012, Europe accounted for 535 million foreign tourists, representing 51% of all international tourist arrivals worldwide. Furthermore, Europe holds the largest share of international tourism receipts (43% share), reaching US$ 458 billion in 2012 (UNWTO, 2013). Specifically, about 84% of tourist trips were made within the EU, thus making the EU tourism industry of particular importance. According to Eurostat statistics, the export of tourism services in EU-25 countries amounted to 280.118 billion euros in 2012 (Eurostat, 2013). Moreover, the net export of tourism of EU-25 countries amounted to 19.9 billion euros, providing additional evidence of the contribution of tourism to the EU's economy.

Tourism continually creates growing numbers of businesses and employment opportunities worldwide as well as in many European countries. According to Eurostat statistics, tourism includes 1.84 million businesses employing about 12–14 million of people (Tourismlink, 2012). An average growth of 2.88% in international tourist receipts in EU over the period 2010–2012 outpaced the EU average GDP growth of 0.93% (Eurostat, EU member states GDP growth rates, 2013). This makes tourism important for the both employment opportunities and overall export revenues.

As an internationally traded service, tourism has become one of the world's major trade categories and fastest-growing economic sectors in the world; this has become particularly evident recently (UNWTO, 2013). The growth rate of travel and services export in the EU-25 outpaced the export of goods during the period of 2004–2012, as shown in Figure 1.
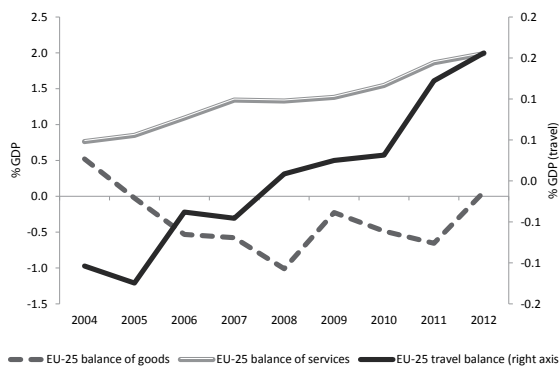

Figure 1   Trade Balance, Balance of Services, and Travel Balance Developments in the EU-25 Countries as a Percentage of GDP, 2004–2012
Source: AMECO database, own elaboration.

Furthermore, the composition of international trade is very closely related to the structures of economies. In recent decades, a considerable shift in structures of European economies has occurred. This is consistent with the global trend of a growing share of the tertiary sector, which is composed of services, in many economies. For instance, 25 member countries of the European Union have an average share of services as 59% in their economies over the period 2004–2012 (Eurostat, 2013; Bolotov et al., 2013).

Since this research is focused on European tourism, it is necessary to mention that international tourism has become an important industry for some individual European economies as it promotes export revenues and, therefore, may help to alleviate the pressure on their balance of payments (Ivanov & Webster, 2007). The large, persistent current account deficits in several European countries have led economists to examine the primary components of the balance of payments and possible measures to improve this situation. In many economies, tourism has been found to be a significant contributor to currency inflows and outflows. Therefore, European governments have recently strengthened support for tourism and consider this sector to have the potential to back economic recovery, given its capacity to distribute wealth and create jobs across the region.

The Theories of International Trade

The significant role of international trade in the EU economies induces the need to explain the rationale of its existence and discuss the underlying theoretical background of this phenomenon. International trade is an integral part of countries' economies throughout the world and is a vehicle for companies to sell goods and services. It enables access to global markets for manufactured and agricultural goods, services and natural resources; therefore, international trade is an important determinant of a country's economic well-being. Over time, the structure of economies evolve and change, new industries emerge and significantly affect customers' demands. All these factors affect the composition of international trade, i.e. categories traded internationally. The emergence of the relatively new and fast-growing global economic sector of tourism reflects such changes.

Since countries evaluate the contribution of international tourism through their travel balances, an analysis of travel flows is made within the framework of international trade in this study.

The nature and the determinants of international trade have been extensively studied in the past, and multiple theories have emerged. The major models, such as those of Ricardian and Heckscher-Ohlin, represent the theoretical background in explaining the international trade in goods. More recently, however, service trades, including the travel sector, have been rapidly evolving. Tourism as an internationally traded service has become one of the world's major trade categories; Europe has retained the leading position in this category.

The theory of international trade is conceived as offering a universal explanation for trade flows. At the same time, the nature of tourism services is different from that of the goods on which the dominant models of international trade were formulated. Traditionally, general factors of production (land, labour and capital) provided the basis for these models. However, in the tourism sector, other factors, such as geography (which determines climate), natural and cultural attractions, are essential. Moreover, tourism products cannot be stored, and it is necessary to travel to consume them; therefore, it is heavily dependent on place.

Consequently, this study analyses whether the main theoretical models (e.g. Ricardian & Heckscher-Ohlin) are suitable to explain the international trade in tourism services. In doing so, the application of the relevant indicators, such as the Balassa index, provides clarification on the comparative advantages of the European tourism sector. This indicator helps to answer the major question of whether the theories formulated for trade with goods are valid for trade with services. The application of international trade theoretical models to trade with tourism services is performed on the example of 25 EU countries, because Europe is one of the leading regions in the global economy and international trade. This is discussed and verified in the further sections of this study.

Methods

In this research, 25 European Union countries were analysed. The choice of the countries was made because all of them have been EU members since 2004, which offers a consistent framework of harmonized statistical data for analysis for all countries.

All the data used in the present research was collected from the Annual Macro-Economic Database of the European Commission (AMECO), The Statistical Office of the European Union (Eurostat), and Organization for Economic Cooperation and Development (OECD) statistical databases (European Commission, AMECO, 2013; OECD, Statistics, 2013; Eurostat, 2013). Travel export is considered as a segment of overall export. *Nominal monetary values were used for relevant calculations in the study.* The software used for the data processing was Microsoft Excel. European travel industry statistics were analysed for the period from 2004 to 2012, due to availability of data as on 1 May 2014.

A balance of payments approach was employed for the purposes of present research (International Monetary Fund [IMF], 1993). The balance of payments (BoP) is a universal source of information that allows assessing the economic impacts of international tourism on European economies. Therefore, the BoP has a universal application for different countries and contains statistics of currency receipts and expenditures from international tourism. This approach provides a basis for assessing the economic impacts of international tourism on European economies.

The insights of major theories of international trade such as Ricardian and Heckscher-Ohlin (H-O) were used in tandem to determine the comparative advantages and structures of the selected countries' international trade as well as in order to test their applicability to the tourism sector (Krugman & Obstfeld, 2003; Leamer, 1995).

The United Nations Conference on Trade and Development (UNCTAD) releases measurements of comparative advantage of a given sector in national exports based on the Balassa index. Therefore, the determination of the comparative advantage in this publication was performed using the Balassa index (BI) (Balassa, 1989; Hinloopen & Marrewijk, 2001).

The BI as a product of the concept of revealed comparative advantage refers to the relative export performance of a country in a particular commodity trade. The notation 'revealed' is derived from the concept that the commodity pattern of trade would 'reveal' the comparative advantage of trading countries. This analysis was performed for EU-25 economies in order to determine whether tourism is a strong sector in a country's exports. In this paper, the Balassa index (B_{ij}) is calculated as:

$$B_{ij} = X_{ij} / X_{iEU}$$

where Xij is the share of product i in country $j's$ total exports and X_{iEU} is the share of the same product in total EU-25 exports.

The BI values higher than 1.0 show the existence of comparative advantage, and the BI values below 1.0 do not confirm this in the set of countries analysed. The BI considers only exports; it is also known as the export performance index. It is worth noting that some argue that the BI can be biased due to the omission of imports, especially when country size is taken into consideration (Greenaway & Milner, 1993).

Results

International tourism is an important sector in the European economies, as a redistribution of wealth from the north to south has coincided with major tourist flows for many decades. For example, in Greece, Malta, and Spain, international tourism is a significant source of export earnings. In addition, it is necessary to state that international tourism is recognized as a significant segment in most of South European economies. At the same time, for the ma-

jor source markets for international tourism, such as Germany, Scandinavian countries and England, tourism represents only a small percentage of their total expenditures on imports of services, despite the large volume of outbound travel.

At all times, geographic location plays an essential role for the economy and trade relations, and the tourism industry is no exception. Until recently, there has been a lack of research focused on the examination of relationships between travel balances of countries and their geographic locations.

This study analyses the share of travel balances to GDP in relation to geographic location of EU-25 member countries over the period 2004–2012. It has revealed that the countries of Northern Europe, Germany, and the Netherlands have long-term negative travel balances, making them tourist-generating areas. In contrast, countries in Southern Europe as well as in Central Europe have demonstrated positive travel balances that show them to be tourist-receiving areas for the examined period of 2004–2012. This confirms the reality of tourist-generating areas and tourist-receiving areas, which is consistent with the concept of the geographical components of the tourism system (Boniface & Cooper, 2009).

The results are visualized in Figure 2, in which travel balance average values are plotted together with the countries' current account averages over 2004–2012. Both values were expressed as a share of the GDP.
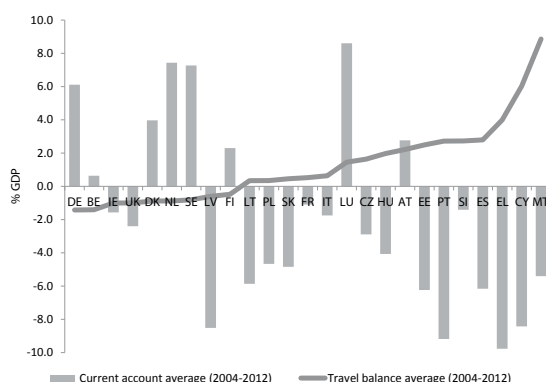

Figure 2   Travel Balances and Current Account as a Percentage of the Country's GDP, Annual Average, 2004–2012

In addition, countries abbreviations used in Figure 2 are provided in Table 1.

Table 1   The EU Countries Abbreviations

AT	Austria	EE	Estonia	HU	Hungary	LU	Luxembourg	SK	Slovakia
BE	Belgium	FI	Finland	IE	Ireland	MT	Malta	SI	Slovenia
CY	Cyprus	FR	France	IT	Italy	NL	Netherlands	ES	Spain
CZ	Czech Republic	DE	Germany	LV	Latvia	PL	Poland	SE	Sweden
DK	Denmark	EL	Greece	LT	Lithuania	PT	Portugal	UK	United Kingdom

Additional findings can be drawn from Figure 2. The most favourable average travel balance to GDP is achieved by Spain (2.8%), Greece (4.0%), Cyprus (6.0%), and Malta (8.9%). Moreover, tourism is an important item of export in those economies. The above-mentioned four countries showed average share of travel on total exports as follows: Spain (15.0%), Greece (23.4%), Cyprus (26.0%), and Malta (14.0%). At the same time, these four countries had negative current account, due to the significant import of goods. However, positive travel balances enable to partly mitigate the adverse impacts of foreign trade balances in the aforementioned countries.

On the other side are countries such as Germany and the Netherlands, where a negative travel balances and positive current account were found. The average share travel balance and current account to GDP for Germany were -1.4% and 6.1%, and for the Netherlands -0.9% and 7.4%, respectively. These countries are typical examples of highly diversified export-oriented economies, where the high volume of export of goods outweighs negative travel balances. Moreover, in Germany and the Netherlands, tourism constitutes only a small proportion of total exports of 2.4% in average.

The least favourable situation for both the travel balances to GDP and current account was found in United Kingdom. This economy had negative values in both trade and travel balances, which indicate the excess of imports in goods and tourism over exports.

Finally, only two EU economies (Austria and Luxembourg) had both positive travel balances and current accounts. In the case of Austria, the positive travel balance of 2.2% to GDP and current account 2.8% indicates diversified exports, for which tourism had about 10% share on the total exports. At the same time, Austria had a more than a 70% share of goods

in exports in contrast to Cyprus, which had only a 17% share of goods in exports. Luxembourg gained enormously from its geographical location, which enabled it to remain in positive values of both trade and travel.

The explanation of this unequal travel balances in EU-25 is provided in connection to the comparative advantage calculations.

Comparative Advantages in Travel Export

In connection to the first finding that geographic location, to a certain extent, determines travel balances in EU-25 countries, this research examines whether the countries recognized as tourist destinations have comparative advantages in the export of travel and whether they use them. Throughout the past two centuries, comparative advantage theory has remained one of the principal explanations of existence of international trade.

An analysis of the relationship between comparative advantage and the share of tourism in overall exports will reveal the countries in which tourism is an important trade category. For the purposes of assessing the comparative advantages in travel exports, the BI was employed.

The BI enables finding the revealed comparative advantage in certain segments of exports calculated for an individual country in relation to the reference group of countries subjected to the analysis. The nature of the BI aids in distinguishing countries in relation to share of export of travel to overall exports. As a result, the existence of two groups of countries was found: those that have index values higher than 1, and those with the values below 1.

Figure 3 demonstrates the BI average values for travel and goods along with the shares of overall exports of goods, services to GDP and exports of trav-

el to GDP for 25 EU countries over the period 2004–2012.

Figure 3   Composition of Export and the Balassa Index for Export of Goods and Travel, Annual Average, 2004–2012
Source: Eurostat, own elaboration.

The highest values of the BI for the travel sector were found for Cyprus, Greece, Spain, Portugal, Austria, and Malta. North European countries have the lowest BI values and, therefore, do not possess comparative advantages in export of travel.

The relationship between the BI values and travel exports was analysed. Statistical analysis provided a strong and significant positive correlation between travel exports and the BI values with the correlation coefficient 0.67.

In addition, it is evident from Figure 4, that countries with the higher values of the BI for travel simultaneously have lower shares of goods in their exports. Statistical analysis revealed a strong negative correlation between the BI values for export of goods and BI values for export of travel. The correlation coefficient is -0.66.

These results are consistent with the Ricardian and H-O theory of international trade proposing that a country specializes in those kinds of export categories for which it has a comparative advantage. Therefore, Figure 4 confirms that the countries that have comparative advantages in travel exports do not have them in exports of goods.

At the same time, comparative advantages expressed in BI values represent just a prerequisite for exports of particular items. Therefore, this study has verified whether the countries recognized as tourist destinations in fact do use their comparative advan-

tages in the export of travel. This was calculated as the relationship of travel export to the total export.
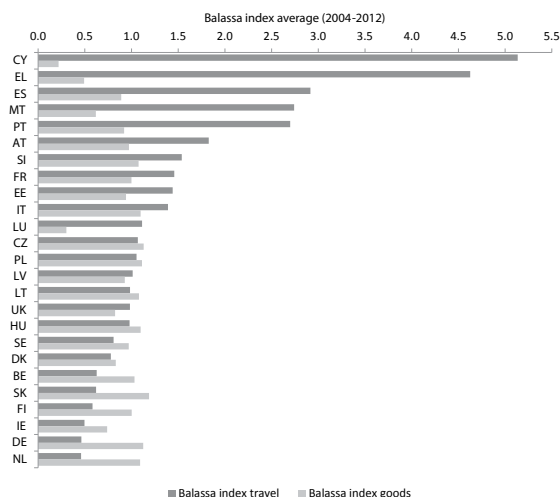

Figure 4   EU-25: The Balassa Index for Export of Goods and Travel, Annual Average, 2004–2012
Source: Eurostat, own elaboration.

The share of travel export to the total export in EU-25 countries over 2004–2012 is provided in Figure 5.
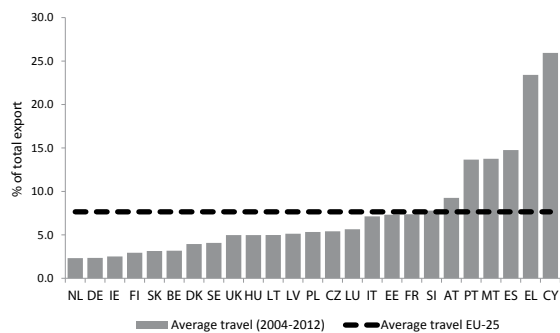

Figure 5   Average Share of Travel Export in Total Exports over the Period 2004-2012
Source: Eurostat, own elaboration.

Cyprus and Greece possesses the highest share of tourism in their overall exports, followed by Spain, Portugal and Malta. To a certain point, this confirms the use of comparative advantages for tourism exports, but it simultaneously highlights the risk of limited numbers trade categories in their exports.

These results for EU-25 countries show that comparative advantages as well as the export of tourism services are particularly dependent on geographic location.

Discussion

As a dynamically evolving segment of international trade, tourism has attracted considerable attention due to its growing significance to national incomes, employment opportunities and overall regional development.

Europe has the leading position in terms of international tourism receipts, expenditures and international tourist arrivals. The BoP implications of tourism are particularly important for certain European countries.

Emerging evidence reveals the positive correlation between exports of goods and tourism services and long-term economic growth (Cortés-Jiménez, Pulina, Prunera, & Artis, 2009; Santana-Gallego, Ledesma-Rodríguez, & Pérez-Rodríguez, 2011). In the existing literature, inbound tourism is considered to be a source of foreign capital necessary to promote economic growth. Since Nowak et al. (2007) proposed the model that describes the mechanism of transmission of economic growth from the tourist-generating areas to the tourist-receiving countries through trade, the crucial role of international trade for the country's economic development becomes evident. This evidence appears to be universal, as a recent study by Santana-Gallego et al. (2011) has confirmed the complementarity between tourism and trade in OECD countries.

However, until now, very limited research has been done in assessing the link between geographic location, the comparative advantages of countries for tourism development and their tourism balances.

This study is focused on estimating the role of international tourism in EU-25 economies within BoP. Our findings suggest that countries' geographic location is connected with the existence of comparative advantages and may predetermine the share of tourism in their total exports. The analysis performed in this study has revealed that tourism has the potential to helping certain South European economies to partially stabilize their current accounts. This effect toward current accounts occurs at least in the short run, it was examined in travel balances for the

2004–2012 period. This research also provides confirmation of an important theoretical assumption between the long term structural changes in economies and economic growth (Mihov, 2011). The contribution of tourism to the structural changes could be observed using the example of tourism development in Cyprus and Greece. Over the past six decades, these countries have experienced a substantial shift in their economies' structure from the primary sector to the tertiary sector, with tourism playing an essential role. For these economies, tourism represents a relatively new industry that changed the structure of exports and led to the growth of their economies as well as GDP per capita. Likewise, several recent studies have confirmed the positive effects of the tourism industry toward the economic growth in several Mediterranean countries (Dritsakis, 2012; Celik, Ozcan, Topcuoglu, & Yildirim, 2013).
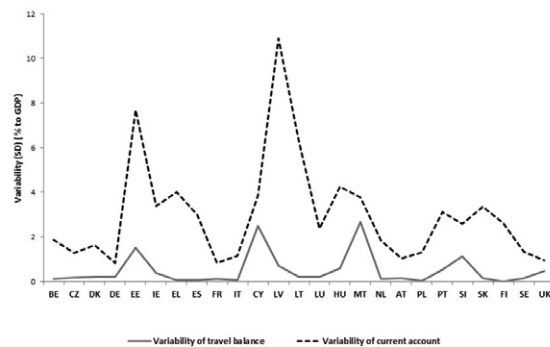

Figure 6 Variability of Travel Balance and the Current Account in the EU-25, Annual Average, 2004-2012
Source: Eurostat, own calculations.

The stabilizing effects of tourism have also been proven by the recent economic crisis, when the variability of current accounts has risen substantially; while the travel balance has simultaneously remained almost constant. In this case, variability for both the travel accounts and the current accounts was evaluated using the standard deviation average values of balance of travel to GDP and the current account to GDP for EU-25 economies over the 2004–2012 period. According to the author's calculations, the average variability expressed as the average standard deviation (SD) for the EU-25 current account was 2.8, whereas for the travel account it was 0.4 through-

out 2004–2012. The variability of travel balance was the highest for Cyprus and Malta, and the lowest occurred in Italy and Finland. Figure 6 provides visualization of calculations discussed.

In this research, the insights from the neoclassical Ricardian and H-O models are used in order to build a better understanding of what determines the number of export items. The abovementioned models explain the idea that countries specialize according to comparative advantages, and their exports match such specializations. Therefore, according to these models, countries will export goods and services that use their abundant and cheap factors of production and import products and services that use the countries' scarce factors.

Since this research is focused on international tourism and its role in BoP in 25 EU economies, the inclusion of BI was employed in order to confirm theoretical assumptions and to identify comparative advantages. Our results confirm the relationships between geographic location, the comparative advantages for the development of tourism, and the share of tourism in total exports in countries analysed, as provided in Figure 3. Countries with favourable travel balances show the higher shares of tourism in their exports, whereas countries with negative values of travel have smaller exports of tourism.

For instance, the comparative advantages for development of the tourism sector are the highest for Greece and Cyprus. This assumption was proven by present research; it was found that tourism has a major share in the structure of services in their economies and in their exports. In addition to the comparative advantages, the size of the economy can (to a certain extent) influence the export of travel services. For instance, in case of Spain, despite the high comparative advantage for export of travel services, tourism appeared to be less important in the structure of the Spanish economy and overall exports. In this case, the size of the Spanish economy plays the decisive role, as a bigger economy has more diversified exports compared to smaller economies, such as Greece and Cyprus. This occurs despite the location and high comparative advantages as shown in Figure 3. Tourism statistics for 2012 show an estimated 57.7 million tourists in Spain, but only 2.5 million tourists in Cyprus and 15.5 million in Greece (UNWTO, 2013). However, in this case, the size of the economy

and the tourist market play a decisive role. The smaller numbers of tourist in Greece and Cyprus represent higher shares in comparison to Spain.

This is consistent with the economic literature that supports the existence of a link between the size of the economy and its possible effects toward the number of goods and services categories produced in a country as well as the overall structure of export (Mihov, 2011). It is logical that the growing number of categories of products in a country's exports or diversification of exports may lead to a decrease in the significance of travel exports in the overall export. This is consistent with our findings when we examined the structure of exports of services within the BoP of EU-25 countries.

Unlike small South European economies, developed countries, such as Germany and Netherlands, have highly diversified exports. The diversification of exports has positive relationships to the stability of the country's total income, such as decreased earnings from certain exporting items due to the changing world economic conjuncture are being compensated by the other items.

According to the statistical data, the share of tourism in most of the countries of the Western and Northern Europe is smaller comparing to the South Europe. These countries are recognized as tourist-generating areas and have negative travel balances. However, due to the higher extent of export diversification, tourism does not play as an essential role for those countries, as compared to certain Mediterranean countries.

Finally, tourism is also recognized as an investment opportunity. According to the principles of BoP, in the case a current account is negative it should be balanced by the capital inflow, such as foreign direct investments (FDI), found in the financial accounts of BoP. In general, FDI are allocated into different sectors of the economy, including tourism. Moreover, FDI are also recognized as important drivers of growing services share in many economies (Aslan, 2013).

According to the OECD database, inward FDI in hotel accommodation and restaurants are the biggest investment flows related to the tourism industry. Due to available statistics for the 2004–2011 period, more than US$ 16.8 billion were invested into the tourism industry in 15 EU countries (OECD, FDI flows by in-

dustry, 2013). Among the countries with the highest inflow of total FDI into hotel accommodation and restaurants were Italy and Spain, with more than US\$ 3.6 billion and US\$ 3.5 billion, respectively, for the period analysed.

Therefore, in contrast to the investments in capital markets, tourism could be a competitive and safer option for investors due to the positive development of travel balances in recent years in many European tourist destinations. For instance, this could be supported by the constant positive inflow of FDI into the hotel and restaurant sector that occurred in Greece during the 2004–2011 period, when it received more than US\$ 250 million. Despite the problems in the economy, tourism here remains the major item in the export of services, helping to maintain a positive balance of services. This, to a certain extent, mitigates the adverse impacts of negative trade balances.

Recent statistical data shows that investments in tourism and in the hotel sector in particular, remain robust despite the sluggish EU economy over 2012 and 2013. During the past decade, Southern European countries have been receiving more investments in the tourism sector than the EU on average. Moreover, countries such as Malta and Portugal did not show any decline in investments in the travel industry during the crisis in 2008–2009, whereas the other sectors of their economies experienced considerable declines in investments (OECD, FDI flows by industry, 2013). This information provides additional support for the possible effects of comparative advantages for the travel industry and the performance of hospitality businesses in certain countries.

Conclusions

In recent times, tourism as an internationally traded service has become one of the world's major trade categories and fastest-growing economic sectors in the world. Notwithstanding renewed interest on the impacts of tourism into European economies, the empirical evidence in this field remains limited.

The original contribution of this study is that it extends the empirical literature in verifications of the applicability of the classic theories of international trade to the tourism sector. Moreover, it considers international tourism within the balance of payments and reveals that the tourism share of GDP and exports is related to the existence of comparative ad-

vantages. The results of the analysis prove that comparative advantages to a large extent determine the tourism flows in the EU countries, providing strong support for the validity of the major theories of trade for the travel sector. In the context of the Ricardian and Heckscher-Ohlin models, it has been shown that comparative advantages and factor endowments are key determinants of international trade as the exports and imports of travel reflects them. Moreover, it was found that geographic location was also an important contributor to the nation's comparative advantages. This is reasonable, considering that geography and hence climate can be hardly replaced, thus allowing tourism to develop according to existing comparative advantages.

It can be concluded that the role of tourism in the EU-25 economies broadly varies and is related to the comparative advantages that determine the share of tourism in total exports and the travel balances of the country. This study can provide a new insight into tourism as an important export industry for certain European countries.

In conclusion, it is noteworthy that tourism as category of international trade represents an important phenomenon for future research. However, to date, the lack of harmonized statistical data has represented the main obstacle for doing such research on a global scale. Considering the possible limitations of the study, it is necessary to mention that trade flows are not merely the result of underlying comparative advantages but are also the result of other factors, such as trade policy interventions, implemented by governments. Trade policy, such as import tariffs, may influence both imports and exports. For the trade in goods, these interventions could influence the measurement of comparative advantage. However, the tourism sector does not typically experience protectionist measures, such as import tariffs or quantitative restrictions. It can be concluded that to the extent that the tourism sector is free of regular subsidies, we may expect that the measurement of comparative advantage provides a more accurate picture than for physical goods.

Acknowledgments

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