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Short-Term and Long-Term Effects of International Tourism Development on the Economic Growth of Mediterranean Countries

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Abstract: *The research presented in this paper aims to examine the short-term and long-term effects of international tourism on the economic growth of 17 Mediterranean countries in the period 2000 to 2019. The impact of tourism is not analysed separately. Actually, the indicators of the countries' labour potential, annual investments, openness to total foreign trade and inflation are also included in the analysis. A panel autoregressive distributed lag (ARDL) evaluation model along with pooled mean group (PMG) estimator was used which proved to be appropriate, based on the characteristics of the panel data series. Our research has shown that the share of international tourism receipts in total exports of a country does not have a statistically significant positive short-term effect on GDP per capita growth, but that it has a statistically significant positive effect in the first lag and a positive long-term effect. Therefore, the hypothesis stating that international tourism receipts have statistically significant short-term and long-term effects on economic growth can be rejected. Our research has shown that economic growth, as a dependent variable, returns to a long-term equilibrium after changing a selected set of independent variables in just over a year. It is vital to note that the size of long-term coefficients obtained by applying the selected model indicates that economic growth is more sensitive to the changes in the share of international tourism in total exports compared to other selected independent variables.*

1. INTRODUCTION

Tourism is one of the fastest-growing industries in the 21st century (Dwyer et al., 2009, pp. 63-74). Accelerated growth and tourism development play an increasingly important role in the global market. Moreover, tourism has a major direct and indirect impact on other related activities (Pjanić, 2019, pp. 291-305). As one of the global leading industries, tourism enables so-called "invisible export" and "invisible import", i.e. both international tourism receipts and the international tourism expenditures in a country, meaning that tourism has a profound impact on foreign trade between all countries (Unković & Zečević, 2011, pp. 48-53). One of the key positive effects of a country's tourism is reflected in the increase in the number of employees in that industry (Pjanić & Mitrašević, 2020, pp.53-66). By generating the revenue for the public and private sectors through tax income, tourism has a major impact on employment growth, simultaneously encouraging public consumption and private investments accompanied by production growth in the entire national economy (Šimundić & Kuliš, 2016, pp. 178-196).

Regardless of the fact that the tourism industry proved to be relatively well resistant to the effects of the 2008 crisis, the 2020 crises caused by the COVID-19 pandemic has adversely affected the

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entire tourism industry worldwide. The restrictions on international, regional, and local travel have greatly affected all national economies (Gössling & Scott & Hall, 2020, pp. 1-20).

Bringing the normal functioning of all countries to a standstill, COVID-19 has drastically affected the tourism sector, leading to a fall in GDP by 4.5 trillion US dollars and 62 million jobs in 2020. Capital investment also declined from $986 billion in 2019, amounting to 4.4% of the global investment, to $693 billion in 2020, which accounts for 3.2% of the global investment, meaning that the decline was 29.7% (World Travel & Tourism Council, 2021). In 2021, in the period from January to May, international tourist arrivals fell by 85% compared to the same period in 2019, or 65% compared to 2020, due to the travel restrictions caused by the coronavirus pandemic. This represents a decrease of as much as 147 million international arrivals compared to the period January-March 2020 or as much as 460 million compared to the entire 2019. Looking at the regions separately, the largest decline in international arrivals is recorded in Asia and the Pacific region with as much as 95% in the period January-March 2021. compared to the same period in 2019. The second-largest decline is in Europe with 85%, followed by the Middle East with 83%, Africa with 81%, and America with 72%. After a total revenue decline of as much as 64% from international tourism in 2020, many world destinations continued to generate low revenues in the period January-May 2021, in the range of 50% to 90% compared to 2019 (World Tourism Organization, 2021).

Due to globalization, the tourism industry has been facing various crises, with the tourism industry undergoing continuous expansion and showing considerable resistance to various crises. These crises are forcing national governments worldwide to respond quickly and efficiently to reduce the negative impact of the crises on the entire tourism industry. The current COVID-19 crisis has greatly slowed down the growth of tourism and resulted in the decline of the tourism industry globally (Marinković & Stevanović, 2020, pp. 425-439).

One of the most important tourist destinations is the Mediterranean region since this region generates one third of the total international tourism receipts (Aslan, 2014, pp. 363-372). In 2019 the Mediterranean region recorded more than 400 million international tourist arrivals, which makes it one of the most popular tourist destinations in the world, with the tourism sector accounting for about 15% of the regional GDP (Fosse, 2021).

The primary purpose of the paper is to examine the short-term and long-term effects of international tourism on economic growth. The research covers 17 Mediterranean countries (Albania, Algeria, Bosnia and Herzegovina, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Malta, Morocco, Slovenia, Spain, Tunisia and Turkey) from the period 2000 to 2019. The literature includes the scientific papers that contain empirical evidence that the effects of international tourism have a positive impact on economic growth, as well as the papers indicating that certain variables through which the impact is observed, do not have a positive impact on economic growth or it is a negative one.

2. LITERATURE REVIEW

A large number of scientific literature includes a comprehensive list of certain tools used to analyse the impact of tourism on economic growth. While contributing to the increase in income and employment, the tourism industry is also expanding and searching for new directions for long-term economic growth (Parrilla, Font and Nadal, 2007, pp. 709–726).

Tourism is one of the most important economic activities that has influenced the economic growth of many countries, especially the Mediterranean countries. The research conducted by Belke et al. (2021) indicates that tourism can significantly help the Mediterranean countries to establish sustainable tourism management over a longer period, as well as the stability of the national economies of these countries. Similarly, the empirical research conducted by using the hidden panel cointegration test proves the existence of a long-term significant relationship between the development of economic activity and economic growth in terms of positive and negative components. However, economic growth is significantly more sensitive to an increase in tourism receipts than to a decrease in tourism receipts. The causality test confirms the hypothesis of tourism-led growth, meaning that all activities that have an impact on tourism development, such as subsidies, tax relief and other measures, contribute to economic growth.

By applying panel unit root tests and error-correction-based panel cointegration techniques to 18 Mediterranean countries (Albania, Algeria, Croatia, Cyprus, Egypt, France, Greece, Israel, Italy, Lebanon, Libya, Malta, Monaco, Morocco, Slovenia, Spain, Syria, Tunisia and Turkey) in the period 1995-2009, Eryiğit & Eryiğit (2011) outline the existence of a long-term relationship between tourism receipts and economic growth.

The research conducted by Šimundić & Kuliš (2016) used a dynamic panel analysis in the period 2004-2014 based on 24 Mediterranean countries (Albania, Libya, Algeria, Macedonia, Bosnia & Herzegovina, Malta, Croatia, Montenegro, Cyprus, Morocco, Egypt, Portugal, France, Serbia, Greece, Slovenia, Israel, Spain, Italy, Syria, Jordan, Tunisia, Lebanon and Turkey) indicates that tourist demand has a positive and statistically significant impact on the economic growth of Mediterranean countries. Moreover, the research shows that certain factors of economic growth, such as investments, trade openness and human capital, have a positive and significant impact on economic growth, and government consumption has a negative impact on economic growth. Moreover, by applying a panel analysis (random effects model) in the period 1987-2002, the empirical research of Gökovali & Bahar (2006) indicates that tourism development significantly affects the economic growth of Mediterranean countries. Aslan's study (2014) was conducted on a sample of 12 Mediterranean countries (Spain, Italy, Portugal, Malta, Tunisia, Cyprus, Turkey, Croatia, Egypt, Israel, Bulgaria and Greece) in the period 1995-2010 using the panel Granger causality tests proves that tourism growth stimulates the economic growth of these countries. Tugcu (2014) analyses the relationship between tourism and economic growth in the period 1998-2011 in European, Asian and African countries (European countries: Albania, Bosnia and Herzegovina, Croatia, France, Greece, Italy, Malta, Monaco, Montenegro, Slovenia, Spain and Turkey. Asian countries: Cyprus, Israel, Lebanon and Syria. African countries: Algeria, Egypt, Libya, Morocco and Tunisia) bordering the Mediterranean Sea by using a panel Granger causality analysis. Its results show that the causality of tourism and economic growth depends on the selected indicators in tourism and a group of countries and outlines a significant impact of tourism on economic growth in European countries. A similar analysis conducted by Manera & Taberner (2006) taking into account Mediterranean countries with a focus on the western islands (Corsica, Sardinia, Sicily, Malta, and the Balearic Islands) also confirms that tourism growth has a positive impact on economic growth.

In the period 1995-2014, based on a sample of eight Mediterranean countries (Egypt, France, Greece, Italy, Morocco, Spain, Tunisia and Turkey), Ren et. al. (2019) indicate that the level of income from tourist arrivals in these countries in all quantiles, significantly affects economic growth. Additionally, the research indicates that the impact of tourism receipts on environmental

pollution varies with quantile changes. It means that tourism receipts have a positive impact on environmental pollution when it comes to lower quantiles, and a negative impact on the higher quantiles. The results of the ARDL model indicate that the level of tourism receipts has both positive and negative effects on economic growth, i.e. pollution.

Using the Panel Granger tests and variance decomposition analysis in Asian countries (Armenia, Azerbaijan, Bahrain, Bangladesh, Belarus, Bhutan, China, Fiji, Georgia, India, Indonesia, Iran, Islamic Rep, Japan, Jordan, Kazakhstan, Korea, Rep, Kuwait, Lebanon, Macao SAR, Malaysia, Maldives, Mongolia, Nepal, Oman, Pakistan, Philippines, Singapore, Sri Lanka, Thailand, Turkey and the United Arab Emirates) in the period 1995-2014, Shakouri et al. (2017) found out that many tourism-related factors, such as tourism revenues, exchange rates, financial development and trade openness of Asian countries affect significantly their economic growth.

The research conducted by Pjanić & Mitrašević (2020) on a sample of twenty-seven EU countries in the period 2001-2019 using a linear mixed model indicates that business tourism spending (BTS) and domestic tourism spending (DTS) have a statistically significant and positive impact on the economic growth of the member states of the European Union. Based on a sample of twenty-eight European Union countries in the period 2012-2018, the results of Haller et al. (2020) also prove that there is a positive and direct relationship between tourism and economic growth. Similar results are obtained by Mirović, Kalaš & Pavlović (2020) by applying a fixed-effects model to a sample of the selected countries of the Western Balkans (Serbia, Montenegro, Northern Macedonia, Bosnia and Herzegovina, and Albania) in the period 2007-2018, where the results indicate that tourism has a positive and significant impact on the economic growth of these countries. Moreover, an almost identical study by Selimi, Sadiku, & Sadiku (2017) on a sample of Western Balkan countries shows that tourism growth has a significant and positive impact on the economic growth of the Western Balkan countries.

Based on the data for South Africa in the period 1995 - 2014, Phiri (2016) did not reject the hypothesis of tourism-led growth, that is, international tourism receipts positively and significantly affect economic growth. As for North African countries (Algeria, Morocco, Egypt, and Tunisia), the Azeez research (2019), conducted in the period 1995-2016, also indicates a positive impact of tourism on the economic growth of these countries.

As for Saudi Arabia, Naseem's empirical research (2021) confirms the concept that tourism promotes economic growth, pointing to the long-term relationship between economic growth and tourism revenues, expenditures, and the number of tourist arrivals.

By applying Granger tests in the period 1980-2014 in Turkey, Hüseyni, Doru, & Tunç (2017) indicate that there is a one-way causality between tourism and economic growth, as the tourism sector in Turkey plays a significant role in economic growth and the development of the entire Turkish economy.

Based on a sample of 18 Mediterranean countries (Albania, Croatia, Cyprus, France, Greece, Italy, Malta, Slovenia, Spain, Turkey, Algeria, Egypt, Israel, Lebanon, Libya, Morocco, Syria and Tunisia) and by using a panel analysis for the period 1995 and 2010, the results of Gao, Xu, & Zhang (2021) show that there is a two-way causality between tourism and economic growth in the northern Mediterranean countries, and a one-way causality between tourism and economic growth in the southern Mediterranean countries. Furthermore, the obtained results

indicate a one-way causality between tourism and CO_2 emissions, suggesting that the Mediterranean countries should focus on the development of tourism, primarily the development of sustainable tourism, taking into account the relationship between economic growth, tourism development, and CO_2 emission.

In tourist destinations such as Slovenia and Montenegro, there was an influx of tourists before the onset of the coronavirus crisis. The empirical results of Gričar et al. (2021) indicate that the influx of tourists has a major impact on economic growth, with economic growth also affecting the development of tourism. A stable and efficient economic environment influences the creation of an attractive environment for the arrival of tourists. At the same time, the influx of tourists affects the growth of foreign exchange earnings and, thus, the overall economic growth.

Tourism, as one of the key drivers of growth in developing countries, has a significant impact on the economic growth of these countries. As for Pakistan, the empirical results of Khan et al. (2020) confirm that the increase in tourism affects economic growth, increases inflows of foreign direct investment, growth and development of agriculture, and poverty reduction.

3. METHODOLOGICAL SETTING

In the paper, we are going to analyse the short-term and long-term effects of changes in the development of international tourism expressed through the share of international tourism receipts in total exports on the annual GDP growth rate per capita as a measure of economic growth. In addition to the impact of tourism, we have examined the impact of the indicators of a country's labour potential, annual investments, openness to total foreign trade and inflation measured by the consumer price index, as an indicator of the degree of instability in the economy. A more detailed description of the variables used in the analysis is presented in Table 1.

Table 1. Role, definitions and units of the variables

Variables	Definitions	Role of variable
GDP	GDP per capita growth (annual %)	dependent
TOUR	International tourism receipts (% of total exports)	independent
LBR	Labour force participation rate (% of total population ages 15-64)	independent
CAP	Gross fixed capital formation (% of GDP)	independent
TO	Trade (% of GDP); Trade= (export+ import)	independent
INFL	Inflation, consumer prices (annual %)	independent

Source: World Bank's World Development Indicators database

In the study, we used balanced panel data for the period 2000–2019 for 17 out of 21 Mediterranean countries (Panel 1). These countries are spread over three continents: Africa, Asia, and Europe, and the areas they occupy are known as the Northern and Southern Mediterranean regions. Along with the analysis of 17 Mediterranean countries, a comparison of the results of a group of 6 Southern Mediterranean countries (Panel 2) was performed and analysed: Algeria, Egypt, Israel, Lebanon, Morocco, Tunisia; and 11 Northern Mediterranean countries (Panel 3): Albania, Bosnia and Herzegovina, Croatia, Cyprus, France, Greece, Italy, Malta, Slovenia, Spain, Turkey. Four Mediterranean countries: Libya, Syrian Arab Republic, Monaco and Montenegro, were excluded from the analysis due to lack of data. For econometric and statistical data processing, we used the software package EViews 10 and Stata 13.

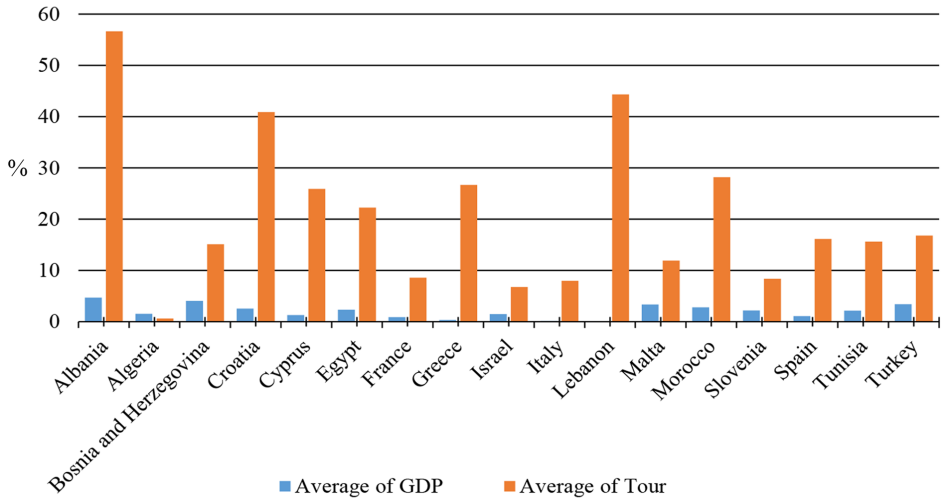
Table 2 depicts the descriptive statistics of the variables used in the analysis of the countries covered by Panel 1. Since Panel 1 covers 17 Mediterranean countries over 20 years, the total number of observations for each variable was 340.

Table 2. Descriptive statistics (%)

Variable	GDP	TOUR	CAP	TO	LBR	INFL
Mean	2.026511	20.75289	22.82679	87.62344	60.82641	3.507486
Median	1.990212	16.93175	21.71053	71.48741	63.20000	2.308093
Maximum	18.91149	74.76000	43.07444	322.6765	75.14000	54.91537
Minimum	-10.01628	0.365350	10.13518	30.24655	44.78000	-4.298475
Std. Dev.	3.186748	15.44523	5.550848	52.94324	9.271797	5.759815

Source: Authors' calculation based on World Bank's World Development Indicators database

GDP per capita growth (annual %) of the Mediterranean countries in the analysed period ranged from -10.02 to 18.91%. There was also a significant difference between the minimum and maximum value of the inflation rate in this period. The values of international tourism receipts (% of total exports) ranged from 0.37% to 74.76%. As we will see in the following graph, the lowest average value of international tourism, receipts (% of total exports) was recorded in Algeria and the highest one in Albania. Out of the selected countries, Albania also had the highest average GDP per capita growth (annual %).



Graph 1. Average values of GDP per capita growth (annual %) and international tourism receipts (% of total exports) in the period 2000-2019 in the selected Mediterranean countries

Source: Authors' calculation based on World Bank's World Development Indicators database

The research was based on the null hypothesis stating that the change in the share of tourism receipts in the country's total exports has statistically significant short-term and long-term effects on GDP per capita growth of the selected Mediterranean countries.

Bearing in mind that in order to obtain statistically valid results, it is necessary to check the presence of multicollinearity, we used the VIF test. Asteriou, et al. (2007, p. 100) state that the VIF test values greater than 10 are generally considered to be evidence of the presence of multicollinearity problems. The limit of the VIF test values in some studies varies, therefore, some researchers take the value 5 (Akinwande, Dikko, and Samson, 2015, pp. 754-767).

In order to select an appropriate model for the analysis of the impact of international tourism receipts on the economic growth of the Mediterranean countries, after checking the presence of multicollinearity, we tested individual data series for stationarity. In this paper, the unit root test of Im, Pesaran, and Shin (2003) was used. The null hypothesis states that there is non-stationarity of time series of all comparative data, i.e. the existence of a unit root, while the alternative hypothesis implies that at least one of those individual components is stationary.

Having conducted the stationarity test, we are going to check the existence of cointegration using the Pedroni Cointegration Test (1999, 2004) based on seven different statistics, assuming the absence of cointegration by the null hypothesis. Four panel test statistics are based on the aggregation of within-dimension data for each observation unit (panel v-statistic, panel rho-statistic, panel PP-statistic, and panel ADF-statistic), while three group test statistics are based on the aggregation of between-dimension data for each time moment (group rho-statistic, group PP-statistic, and group ADF-statistic).

In the last step of the analysis, we used the ARDL model based on the Pooled Mean Group (PMG) estimator proposed by Pesaran, Shin, and Smith (1997, 1999). The Akaike Information Criterion (AIC) was used for lag length selection.

4. RESULTS AND DISCUSSION

As mentioned above, we began our analysis by checking multicollinearity. The results of the VIF test (Table 3), conducted using Stata 13 software package, show that there is no problem of multicollinearity.

Table 3. VIF test results

Variable	VIF-Panel 1	VIF-Panel 2	VIF-Panel 3
TOUR	1.05	1.26	1.22
CAP	1.11	1.28	1.47
TO	1.07	1.07	1.07
LBR	1.20	1.20	1.52
INFL	1.13	1.23	1.36

Source: Authors' calculation using Stata 13 software package

In the following part of the paper, we tested the values of the series for the existence of a unit root. The analysis includes Im, Pesaran, and Shin tests, starting from the null hypothesis that panels contain unit roots. When conducting the test, we chose the option offered in EViews software package to include individual effects in the model and to perform automatic lag length selection based on the Akaike Information Criterion (AIC).

Rejecting the null hypothesis implies that at least one time series is stationary, while all others can be non-stationary. The results of testing individual data series for stationarity based on Im, Pesaran, and Shin test show that the analysed data series were of a different order of integration (mixture of I (0) and I (1)).

The following table shows the results of the Pedroni Cointegration Test, which is based on the within-dimension test or panel statistics test and the between-dimension test. The results based on the data of the countries included in Panels 1, 2 and 3 show that in 6 out of 11 tests, the null

hypothesis of the absence of cointegration has been rejected. Consequently, according to the Pedroni Cointegration Test, there is a long-term consistency in the movement of the analysed time series.

Table 4. Panel unit root test results - Im, Pesaran, and Shin (Individual effects)

	Panel 1		Panel 2		Panel 3	
Variable	**At level**	**At first difference**	**At level**	**At first difference**	**At level**	**At first difference**
GDP	-6.06964***	-14.8358***	-6.27118***	-12.7174***	-1.89861***	-7.78795***
TOUR	-3.65876***	-12.5403***	-2.51607***	-10.3472***	-2.78904***	-7.10278***
CAP	-0.07812	-7.28145***	-0.28457	-4.84808***	0.25599	-5.63571***
TO	0.21360	-9.24134***	0.36896	-7.83861***	-0.14608	-4.93522***
LBR	1.56551	-8.06091***	1.76694	-7.13334***	0.23910	-3.89419***
INFL	-5.48248***	-14.8659***	-4.67642	-11.5000***	-2.92778***	-9.43089***

Significance at 1%, 5% and 10% level are denoted with ***, **, and *, respectively.

Source: Authors' calculation using EViews 10 software package

Table 5. Panel Cointegration Test Results

Panel 1.

Alternative hypothesis: common AR coefficient (within-dimension)

	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	-0.449699	0.6735	-1.897179	0.9711
Panel rho-Statistic	1.469213	0.9291	1.553386	0.9398
Panel PP-Statistic	-5.622419	0.0000	-7.083092	0.0000
Panel ADF-Statistic	-6.027964	0.0000	-7.346366	0.0000

Alternative hypothesis: individual AR coefficient (between-dimension)

	Statistic	Prob.
Group rho-Statistic	3.336887	0.9996
Group PP-Statistic	-9.107641	0.0000
Group ADF-Statistic	-8.652141	0.0000

Panel 2.

Alternative hypothesis: common AR coefficient (within-dimension)

	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	-0.173258	0.5688	-1.732116	0.9584
Panel rho-Statistic	1.093499	0.8629	1.782622	0.9627
Panel PP-Statistic	-5.110654	0.0000	-4.057614	0.0000
Panel ADF-Statistic	-5.637107	0.0000	-4.933928	0.0000

Alternative hypothesis: individual AR coefficient (between-dimension)

	Statistic	Prob.
Group rho-Statistic	3.344524	0.9996
Group PP-Statistic	-4.614488	0.0000
Group ADF-Statistic	-5.576907	0.0000

Panel 3.

Alternative hypothesis: common AR coefficient (within-dimension)

	Statistic	Prob.	Weighted Statistic	Prob.
Panel v-Statistic	-0.678965	0.7514	-0.790748	0.7855
Panel rho-Statistic	1.065844	0.8568	0.052580	0.5210
Panel PP-Statistic	-2.160678	0.0154	-6.788237	0.0000
Panel ADF-Statistic	-1.963390	0.0248	-5.996254	0.0000

Alternative hypothesis: individual AR coefficient (between-dimension)

	Statistic	Prob.
Group rho-Statistic	1.088310	0.8618
Group PP-Statistic	-9.082398	0.0000
Group ADF-Statistic	-7.012556	0.0000

Source: Authors' calculation using EViews 10 software package

According to the theoretical knowledge, in a situation when working with relatively small samples with time series data of different order of integration, the application of Autoregressive Distributed Lag Models - ARDL with Pooled Mean Group (PMG) estimator allows a reliable assessment of long-term and short-term effects of tourism development on economic growth. The next two tables show the results of the analysis conducted in the software package EViews 10 based on the countries covered by Panels 1, 2 and 3 while using the option that the model includes a constant term.

Table 6. Values of long-term coefficients using Panel ARDL model

	Panel 1	Panel 2	Panel 3
Selected Model:	**ARDL(2, 2, 2, 2, 2, 2)**	**ARDL(2, 2, 2, 2, 2, 2)**	**ARDL(1, 2, 2, 2, 2, 2)**
Independent variable:	**Coefficient (Std. error)**		
TOUR	0.258413*** (0.013358)	0.120285*** (0.037834)	0.267748*** (0.042045)
CAP	0.250165*** (0.018957)	0.100374*** (0.033123)	0.200600*** (0.041657)
TO	0.040950*** (0.003378)	0.029419* (0.017154)	0.037390*** (0.013809)
LBR	0.075686*** (0.015884)	0.090783* (0.057165)	0.138252* (0.095135)
INFL	-0.077233*** (0.017172)	-0.031156 (0.036336)	-0.064699* (0.040282)

Source: Authors' calculation using the EViews 10 software package

The preliminary results show that in the case of Panel 1 and Panel 3 all long-term coefficients are statistically significant, while in the case of Panel 2 the long-term coefficient expressing the movement of economic growth depending on the movement of the inflation rate is not statistically significant.

The share of international tourism receipts in total exports has a statistically significant, at the level of significance of 1%, positive long-term effect in the case of all three panels. However, based on the following table (Table 7) which shows the values of short-run coefficients, we can conclude that the change in the share of tourism receipts in total exports does not have a statistically significant short-term effect on GDP per capita growth; however, it has a statistically significant positive effect in the first lag.

The error correction term is negative and statistically significant, and its size in the case of all three panels (-0.868599, -0.753360, -0.916398) indicates that GDP per capita growth, as a dependent variable, returns to long-term equilibrium after changing the selected set of independent variables for a little over a year.

In the following part of the paper, the results of long-term and short-term relationship between GDP per capita growth and the selected variables are compared with the previous research in this area, followed by a comprehensive conclusion and directions for further research.

Table 7. Values of short-term coefficients using Panel ARDL model

	Panel 1	Panel 2	Panel 3
Selected Model:	**ARDL(2, 2, 2, 2, 2, 2)**	**ARDL(2, 2, 2, 2, 2, 2)**	**ARDL(1, 2, 2, 2, 2, 2)**
Variable:	**Coefficient (Std. error)**		
COINTEQ01	-0.868599*** (0.204723)	-0.753360*** (0.126647)	-0.916398*** (0.267889)
D(GDP(-1))	0.122194* (0.096615)	0.204047* (0.163458)	
D(TOUR)	0.027997 (0.526978)	0.111512 (0.393432)	0.800443 (1.202180)
D(TOUR(-1))	0.470385** (0.209588)	0.524728* (0.332365)	0.425399* (0.448047)
D(CAP)	0.815101*** (0.169705)	0.751336*** (0.242279)	0.674890*** (0.238656)
D(CAP(-1))	0.413976** (0.183205)	0.150207 (0.212407)	0.386292* (0.253655)
D(TO)	0.053410 (0.059128)	0.159939* (0.081102)	0.042771 (0.036000)
D(TO(-1))	0.124445* (0.047565)	0.039455 (0.067222)	0.136703** (0.061650)
D(LBR)	0.841353 (0.736107)	0.181817 (0.544859)	2.380316 (1.680553)
D(LBR(-1))	0.231215 (0.323765)	0.018232 (0.195060)	0.119239 (0.613089)
D(INFL)	-0.041205* (0.110834)	-0.083104* (0.088608)	-0.062390* (0.204020)
D(INFL(-1))	-0.100972* (0.166464)	-0.325283* (0.185290)	-0.177252* (0.292615)
C	-4.125882*** (0.945111)	-4.539357*** (0.957770)	-7.349082*** (2.659925)

Source: Authors' calculation using the EViews 10 software package

5. CONCLUSION

Our main goal was to analyse the long-term and short-term impact of international tourism receipts on the economic growth of the analysed Mediterranean countries using the panel autoregressive distributed lag (ARDL) model. We have included the indicators from the domain of various economic policies as independent variables which according to theoretical and practical knowledge have an impact on a country's development, as well as annual investments, openness to total foreign trade and inflation, and labour potential as one of the key indicators which, according to empirical knowledge, is largely interdependent with the country's development indicator.

Our results show a statistically significant long-term relationship between international tourism receipts (% of total exports) and GDP per capita growth (annual %) in 17 out of 21 Mediterranean countries in the period 2000-2019. Based on these coefficients, we can conclude that the growth of the share of international tourism receipts in total exports of 1% would imply the growth of GDP per capita growth (annual %) by 0.25%, 0.12% and 0.26% in the case of Panel 1, 2, and 3 respectively.

Similar results based on the example of the panel composed exclusively of Mediterranean countries are obtained by Ren, et al. (2019) and Simnudić and Kuliš (2016). Many studies, including

Hüseyni, Doru and Tunç (2021), Azeez (2019), Selimi, Sadiku & Sadiku (2017), covering the Mediterranean countries individually or in a group of other countries belonging to this area also confirm our results concerning the positive impact of tourism on economic growth.

Our research shows that there is a positive statistically significant impact of gross fixed capital formation (% of GDP) on economic growth. The long-term coefficient labour force participation rate (% of total population ages 15-64) indicates a statistically significant and positive impact; however, the results of the selected model do not show that a short-term coefficient is statistically significant. The results of our research show that trade openness has a statistically significant and positive long-term effect on economic growth and a statistically significant and positive short-term effect in the case of Panel 2.

Our results show a statistically significant short-term negative effect in the case of all three panels and a long-term effect in the case of Panel 1 and Panel 3, while in the case of Panel 2 the long-term coefficient is not statistically significant.

Having in mind the abovementioned results, it can be concluded that the tourism sector has a significant impact on economic growth, which once again confirms the importance of encouraging tourism development in the selected countries.

6. FUTURE RESEARCH DIRECTIONS

Since the tourism industry has been one of the hardest-hit sectors due to the pandemic, many countries have been forced to implement various financial measures in order to stabilize and improve the tourism industry. Future research should consider the concrete effects of the undertaken measures on the growth and development of tourism, as well as on the overall economic growth of all countries.

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