

International Economics

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**THE CONTRIBUTION
OF THE INTERNATIONAL TOURISM
TO EMPLOYMENT GROWTH IN GREECE**

Abstract

The article analyzes the direct impact of factors on employment in the context of the three sectors directly related to the tourism sector in Greece (air transport, hotels and restaurants, leisure sector) with the regression and correlation analysis. The regression models take into account the impact of the number of nights spent by non-residents in hotels, tourism export growth, GDP growth, inflation, the dynamics of the real effective exchange rate, the increase in expenditures on tourism by the EU citizens. Indirect impact of international tourism on employment in other sectors is estimated as well.

Key words:

International tourism, Greek tourism, development, employment, air transport, hotels and restaurants, leisure sector.

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In September 2014 unemployment rate in the EU-28 was 10.1% with the lowest rate in Germany (5%) and Austria (5.1%), and the highest level in Greece (26.4%) and Spain (24%). Increasing international tourism receipts in Greece could lead to job creation, thus tourism industry can be a leading sector in the fight against unemployment in the coming years. For the first time during the recent crisis unemployment in Greece decreased from 27.8% in September 2013 to 26.4% in July 2014, indicating a downward trend in unemployment and direct influence of tourism sector due to the increase in the inbound tourism to Greece in 2014. (Eurostat, 2000–2014). The European Commission in November 2014 forecasted growth of the GDP of Greece by 0.6% in 2014, 2.9% in 2015, and 3.7% in 2016 (European commission, 2014).

The following researchers were involved in the study of the role of the tourism industry in the growth economy and employment growth in Greece: Buhalis Dimitrios, Dritsakis Nikolaos, Chaido Dritsaki, Stanislav Ivanov, Leontidou L., Riley Michael, Szivas Edith, Craig Webster (Dritsakis, 2004; Dritsaki, 2009; Ivanov and Webster, 2007; Leontidou et al., 1991; Szivas and Riley, 1999)

In the article's aim is to estimate direct and indirect effect of tourism sector and macroeconomic indicators on employment in Greece.

Next we consider the contribution of international tourism to employment growth in Greece. Table 1 shows the dynamics of employment in the tourism sector in Greece (direct contribution) and indirect contribution to employment as employment in other sectors existing due to the tourism industry creating additional demand for goods and services in these other sectors (with direct contribution it makes full payment) – in 2000–2012.

Since for sufficiently reliable results of regression and correlation analysis of factors of employment we need a longer period of time, we use other source of data on employment (Eurostat with another classification by sector). The annex table A1 (Table A1 Sources and description of dependent and independent variables) describes employment indicators (dependent variables) and other indicators (independent variables) and data sources for them. All indicators except real effective exchange rate are considered as growth over the previous year. Unless otherwise stated, all indicators are taken for Greece.

We consider employment in the following industries as employment in the international tourism sector:

- air transportation (the vast majority of international tourists arrive in Greece by air);
- hotels and restaurants;

- leisure sector (including travel agencies and operators; creative, artistic and entertainment activities; libraries, museums and other cultural institutions; gambling establishments; sports and other establishments for leisure).

Table 1

The role of the tourism sector in providing employment in Greece

Year	Direct contribution		Full contribution	
	Thousand persons	% growth	Thousand persons	% growth
2000	347,6		788,3	
2001	341,7	-1,70	796,6	1,05
2002	340,9	-0,23	796,2	-0,05
2003	327,6	-3,90	776,3	-2,50
2004	325,8	-0,55	785,3	1,16
2005	360,9	10,77	855,1	8,89
2006	371	2,80	885,6	3,57
2007	365,4	-1,51	878,2	-0,84
2008	361,5	-1,07	854,4	-2,71
2009	331,9	-8,19	798,6	-6,53
2010	345,3	4,04	786	-1,58
2011	329	-4,72	720,6	-8,32
2012	330,6	0,49	688,8	-4,41

Source: data of SETE , UNWTO (Travel & tourism employment 2000–2012).

We also consider indirect contribution of tourism sector to employment in other sectors:

- agriculture; production of food products and beverages (besides residents it also provides food for tourists – supplies for restaurants, etc.);
- production of clothing (including those made of fur, purchase of which is an important factor of demand for travel services in Greece);
- energy and water supply (including for hotels);
- construction (including hotels and infrastructure);
- wholesale and retail trade (except vehicles);

- water and overland transport (which is involved in transporting foreign tourists less than air transport).

Of course, not all the employed in the above sectors serve international tourists.

We consider other indicators of tourism sector and some macroeconomic indicators of Greece, as well as the EU, and the world as potential factors of employment in tourism industry.

We consider indicators of tourism sector of Greece, as well as the EU, as potential factors of employment in other industries servicing tourism sector.

First we calculate the correlation coefficients between the dependent variables and potential factors (for the period 1990-2013 or shorter period in case of missing data) with:

- 0 years lag (dependent variable and potential factor of the same year);
- 1 year lag (dependent variable of a certain year and a potential factor in the preceding year).

Employment rates themselves in international tourism are weakly correlated with each other. The only exception is the correlation between employment growth in hotels and restaurants, and employment growth in the leisure sector (0.52%).

As you can see from the correlation coefficients in tables 2 and 3, we may do preliminary conclusions about the influence of independent variables on the employment in international tourism.

Table 2

Correlation between employment in the Greek tourism sector and potential factors (lag – 0 years)

Factor	Employment growth in air transport	Employment growth in hotels and restaurants	Employment growth in the leisure sector
Exports of travel services	0.27	0.13	0.03
Imports of travel services	0.13	0.16	-0.04
Increase in number of hotels	-0.12	0.10	-0.09
Increase in rooms in hotels	-0.30	0.04	-0.02
Increase in beds in hotels	-0.29	0.03	-0.03

Factor	Employment growth in air transport	Employment growth in hotels and restaurants	Employment growth in the leisure sector
Increase in the number of nights spent in hotels by non-residents	0.52**	-0.07	-0.10
Increase in arrivals of foreign tourists	0.43*	0.40	0.09
Growth of share of foreign tourists arrivals relative to the entire Europe	0.70**	0.55*	0.02
Growth of share of foreign tourists arrivals relative to the entire world	0.75**	0.62**	-0.01
Growth of tourism expenditures of the EU citizens	-0.13	0.20	0.49**
Growth of the public deficit	0.17	0.15	0.01
Growth of foreign direct investment	0.14	-0.34	-0.22
GDP growth	-0.19	0.34	0.31
Growth of government consumption	-0.24	0.33	0.19
Growth of gross capital formation	0.06	0.30	0.32
Inflation	0.36	0.52**	0.23
Growth of inflation	-0.07	-0.08	0.08
Growth of current transfers from abroad	0.06	0.16	0.27
Real effective exchange rate	-0.03	-0.56**	-0.22
Growth of budget revenues other than grants	0.15	0.04	0.02
Growth of subsidies and other transfers from the budget	0.25	0.36	0.13
Growth of tax revenues	0.05	0.11	-0.01
Growth of share of tax revenues in the budget	-0.02	-0.09	-0.13
Growth of share of direct taxes in government revenue	-0.33	0.28	0.04
GDP growth of the world	-0.09	-0.11	-0.01
EU GDP growth	-0.16	0.14	0.19

Note: hereinafter * marks correlation coefficients with significance level <0.1; ** – <0.05.

Table 3

**Correlation between employment in the Greek tourism sector
and potential factors (lag – 1 year)**

Factor	Employment growth in air transport	Employment growth in hotels and restaurants	Employment growth in the leisure sector
Exports of travel services	-0.08	0.59**	0.08
Imports of travel services	-0.04	0.21	-0.22
Increase in number of hotels	-0.09	-0.29	-0.51**
Increase in rooms in hotels	-0.16	-0.14	-0.26
Increase in beds in hotels	-0.16	-0.16	-0.26
Increase in the number of nights spent in hotels by non-residents	-0.06	0.11	-0.11
Increase in arrivals of foreign tourists	-0.16	0.33	0.17
Growth of share of foreign tourists arrivals relative to the entire Europe	-0.08	0.13	0.23
Growth of share of foreign tourists arrivals relative to the entire world	-0.19	-0.12	0.13
Growth of tourism expenditures of the EU citizens	-0.04	-0.14	-0.15
Growth of the public deficit	0.23	0.00	0.14
Growth of foreign direct investment	-0.26	0.04	-0.07
GDP growth	-0.10	0.48**	0.27
Growth of government consumption	0.03	0.24	0.06
Growth of gross capital formation	-0.19	0.15	0.22
Inflation	0.34	0.49**	0.10
Growth of inflation	-0.02	-0.39*	-0.14
Growth of current transfers from abroad	0.04	-0.01	0.33
Real effective exchange rate	-0.06	-0.58**	-0.30
Growth of budget revenues other than grants	0.29	-0.05	0.01
Growth of subsidies and other transfers from the budget	0.15	-0.29	0.02
Growth of tax revenues	0.38	0.09	-0.05
Growth of share of tax revenues in the budget	0.19	0.13	0.22

Factor	Employment growth in air transport	Employment growth in hotels and restaurants	Employment growth in the leisure sector
Growth of share of direct taxes in government revenue	0.22	0.16	-0.11
GDP growth of the world	-0.03	0.15	0.19
EU GDP growth	-0.05	0.33	0.29

Employment growth in air transport is positively affected by:

- increase in the number of nights spent in hotels by non-residents;
- increase the share of foreign tourists arrivals relative to the entire Europe;
- increase the share of foreign tourists arrivals relative to the world;
- increase in number of arrivals of foreign tourists.

All the factors influence without time lag. Evidently, the employment in air transport is affected by physical indicators of tourism sector and not by value indicators. Despite bigger correlation, we will exclude growth of share of foreign tourists' arrivals in Greece relative to the entire Europe and the world from our further analysis. The reason is high correlation between them and increase in arrivals of foreign tourists and the missing data before 2001.

Employment growth in hotels and restaurants is positively affected by:

- growth of share of foreign tourists arrivals relative to the entire world;
- inflation (without time lag and with 1 year lag) – possibly deflationary trends and monetary contraction have a negative impact;
- reduction of the real effective exchange rate (without time lag and with 1 year lag) – the euro exchange rate dynamics is likely to have a significant impact on employment – expensive euro hinders employment;
- increase in exports of travel services (with 1 year lag);
- GDP growth (with 1 year lag);
- increase in the share of foreign tourists arrivals relative to the entire Europe;
- decrease in inflation (with 1 year lag) – the effect is contrary to the impact of price changes.

Employment growth in the leisure sector is positively affected by:

- growth of tourism expenditures of the EU citizens (foreign tourists come to Greece's mainly from the EU);
- decrease in the number of hotels (with 1 year lag), which is controversial from a theoretical point of view.

Apparently, employment in the tourism sector is not affected by the size of hotel (rooms, beds), indicators of the state budget, dynamics of general and foreign investment in the economy (the whole economy, not specific investments in the tourism sector), current transfers from abroad, and economic growth in the EU or the world.

We use the results of the correlation analysis to construct regression models to estimate influence of selected factors on the growth of employment in the Greek tourism sector. We show t-statistics below coefficient in regression formulas (* – indicates that the coefficient is significant with p-level < 0.10; ** – with p-level < 0.05, *** – with p-level < 0.01).

Model for employment in air transport (coefficient of determination $R^2 = 0.56$, input data for the period 1995–2012 years):

$$ATE_t = -0,1436 + 1,964N - 0,536ATE_{t-1}, \quad (1)$$

(-0,03)
(-3,29)***
(3,11)***

where ATE – employment growth in air transport in year t , %;

N – increase in the number of nights spent in hotels by non-residents, %.

Thus, increasing the number of nights spent in hotels by non-residents by 1% leads to an increase in employment in the air transport by almost 2%. We included employment growth in air transport in the preceding year as a factor in the regression, given that otherwise residuals are not independent of each other. Figure 1 shows a scatterplot that shows the effect of increase in the number of nights spent in hotels by non-residents.

The first model for employment in hotels and restaurants ($R^2 = 0.68$, input data for the period 1993–2012 years):

$$HRE_t = -3,863 + 0,137TE_{t-1} + 0,528GDP_{t-1} + 0,806P_t, \quad (2)$$

(-2,77)**
(3,17)***
(2,40)**
(3,57)***

where HRE – growth of employment in hotels and restaurants in year t , %;

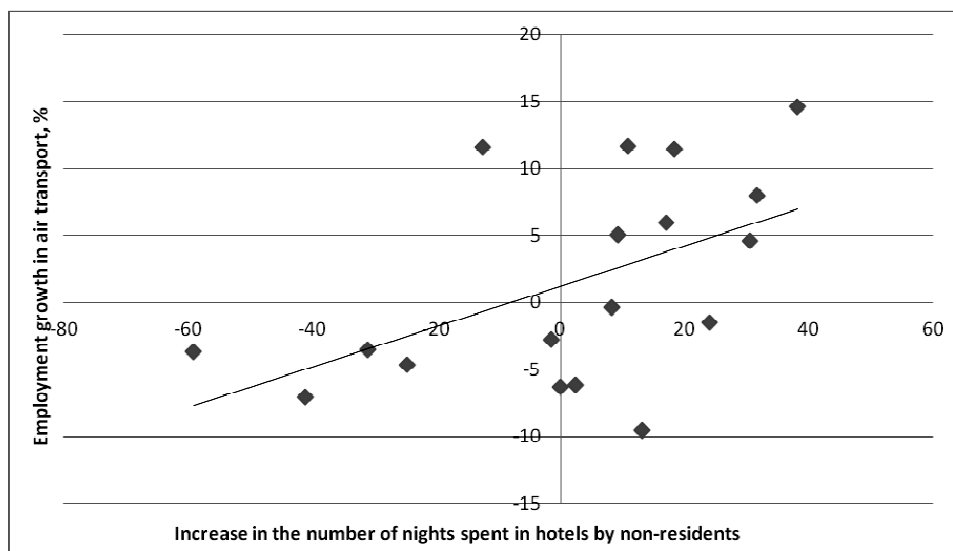
TE_{t-1} – the growth of tourism services exports in the preceding year, %;

GDP_{t-1} – GDP growth in the preceding year, %;

P_t – inflation in year t , %.

Figure 1

Relationship between the increases in the number of nights spent in hotels by non-residents and employment growth in air transport



Thus growth of tourism services export by 1% leads to growth of employment in hotels and restaurants in the succeeding year by nearly 0.14%. Increase in GDP by 1% leads to growth of employment in hotels and restaurants in the succeeding year by almost 0.5%. Increase in prices by 1% leads to increase in employment in hotels and restaurants in the same year by almost 0.8%. The influence of the factors is shown in the figures 2, 3, 4.

The second model for employment in hotels and restaurants ($R^2 = 0.31$, input data for the period 1993–2012 years):

$$HRE = 48,166 - 0,469REER, \quad (3)$$

(2,99) *** (-2,86)**

where HRE – growth of employment in hotels and restaurants, %;

$REER$ – real effective exchange rate (compared to 2005), %.

Thus, increase in real effective exchange rate of the euro by 1% leads to a decrease in employment in hotels and restaurants by nearly 0.5%. The relationship is also shown in figure 5.

Figure 2

Relationship between tourism export growth and growth of employment growth in hotels and restaurants.

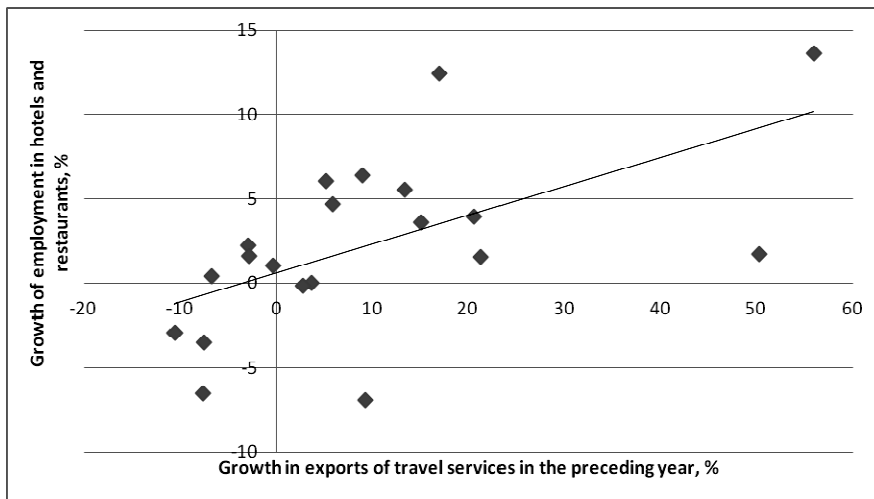


Figure 3

Relationship between GDP growth and employment growth in hotels and restaurants

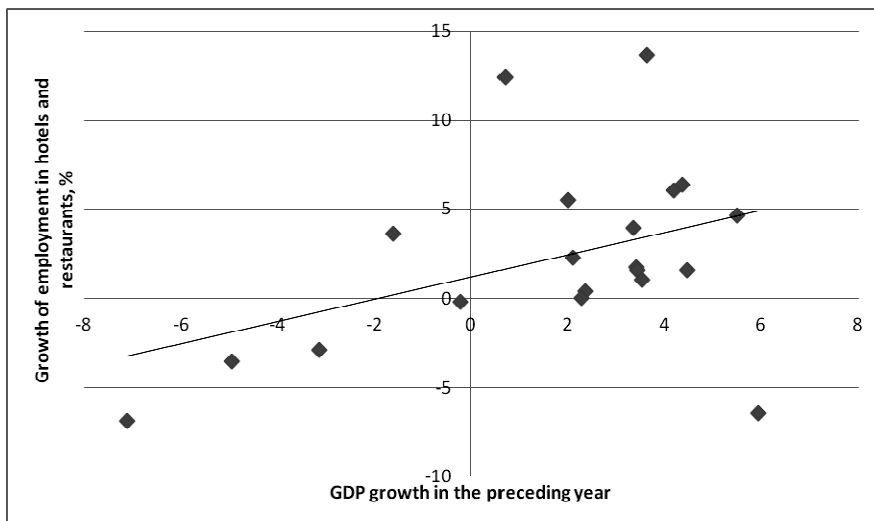


Figure 4

The relationship between rising prices and rising employment in hotels and restaurants

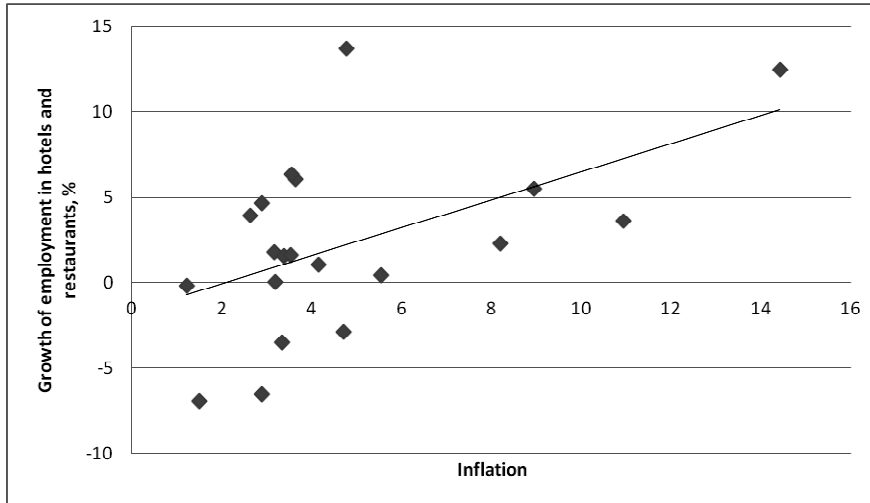
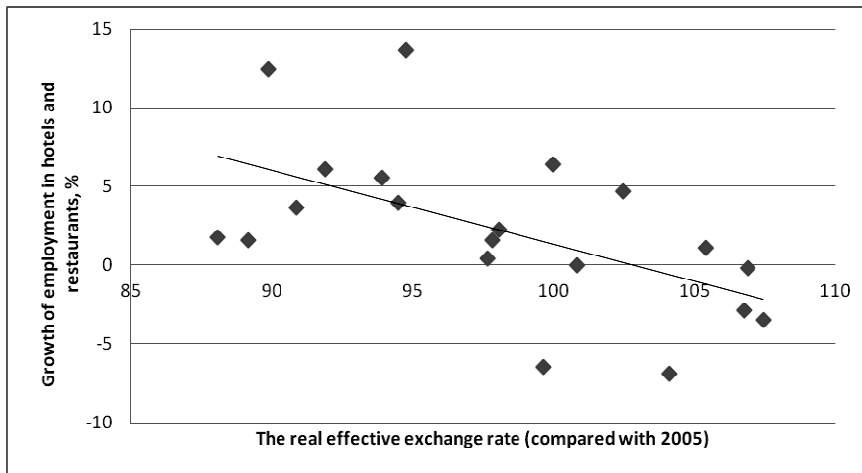


Figure 5

Relationship between the growth of the real effective exchange rate and the growth of employment in hotels and restaurants



Model for employment in the leisure sector ($R^2 = 0.24$, input data for the period 1996–2012 years):

$$RE_t = -2,710 + 0,527TEEU, \quad (4)$$

(-1,25)
(2,15)**

where RE – employment growth in the leisure sector of the year t , %;

$TEEU$ – growth of tourism expenditures of the EU citizens, %.

Thus, growth of tourism expenditures of the EU citizens (in all countries) by 1% leads to increase in employment in the leisure sector of Greece by 0.5%. The relationship is also shown in figure.

Further we use correlation analysis to determine factors of employment in sectors indirectly related to tourism industry in Greece (see tables 4 and 5).

Figure 6

Relationship between growth of tourism expenditures of the EU citizens and employment growth in the leisure sector

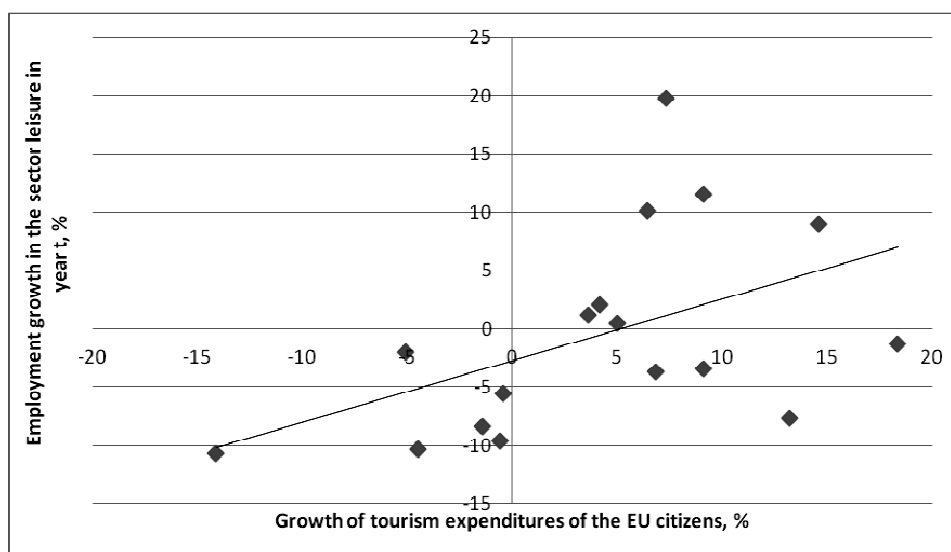


Table 4

Correlation between employment in the Greek sectors indirectly related to tourism and potential factors (lag – 0 years)

Factor	Employment growth in agriculture	Employment growth in the food industry	Employment growth in the production of clothing	Employment growth in energy supply	Employment growth in water supply	Employment growth in construction	Employment growth in wholesale trade	Employment growth in retail trade	Employment growth in land transport	Employment growth in water transport
Employment growth in air transport	0.27	0.12	0.13	0.43*	-0.15	0.04	-0.13	-0.06	-0.05	0.30
Employment growth in hotels and restaurants	0.15	0.27	0.53**	0.06	-0.05	0.75**	0.42*	0.49**	-0.08	0.05
Employment growth in the leisure sector	0.03	0.11	0.08	0.23	0.11	0.33	0.24	0.39*	-0.09	0.26
Exports of travel services	-0.14	0.28	0.12	0.13	0.20	0.09	0.19	0.32	0.07	-0.11
Imports of travel services	-0.08	0.42*	0.12	0.12	0.34	0.11	0.36	0.30	0.42*	0.04
Increase in number of hotels	0.26	0.24	0.16	0.28	0.41*	0.32	0.30	0.20	0.54**	0.32
Increase in rooms in hotels	0.17	-0.06	0.02	0.20	0.29	0.06	0.35	0.06	0.27	-0.14
Increase in beds in hotels	0.19	-0.07	0.01	0.20	0.27	0.03	0.35	0.03	0.25	-0.14
Increase in the number of nights spent in hotels by non-residents	0.12	0.14	-0.04	0.24	-0.24	-0.14	0.14	0.02	-0.07	-0.00
Increase in arrivals of foreign tourists	-0.13	0.22	0.30	0.13	-0.18	0.16	0.44*	0.16	0.15	-0.31

Factor	Employment growth in agriculture	Employment growth in the food industry	Employment growth in the production of clothing	Employment growth in energy supply	Employment growth in water supply	Employment growth in construction	Employment growth in wholesale trade	Employment growth in retail trade	Employment growth in land transport	Employment growth in water transport
Growth of share of foreign tourists arrivals relative to the entire Europe	0.05	0.33	0.50*	-0.01	-0.15	0.19	0.47	0.11	0.37	-0.11
Growth of share of foreign tourists arrivals relative to the entire world	0.23	0.38	0.49	0.02	-0.35	0.16	0.23	-0.01	0.35	-0.25
Growth of tourism expenditures of the EU citizens	-0.41*	-0.31	-0.07	0.36	0.24	0.38	0.28	0.25	0.11	0.28

Table 5

Correlation between employment in the Greek sectors indirectly related to tourism and potential factors (lag – 1 year)

Factor	Employment growth in agriculture	Employment growth in the food industry	Employment growth in the production of clothing	Employment growth in energy supply	Employment growth in water supply	Employment growth in construction	Employment growth in wholesale trade	Employment growth in retail trade	Employment growth in land transport	Employment growth in water transport
Employment growth in air transport	-0.11	-0.25	0.07	-0.03	-0.26	0.01	-0.17	0.13	-0.33	0.10
Employment growth in hotels and restaurants	0.05	0.25	0.40*	0.33	0.21	0.34	0.12	0.62**	0.53**	0.25

Factor	Employment growth in agriculture	Employment growth in the food industry	Employment growth in the production of clothing	Employment growth in energy supply	Employment growth in water supply	Employment growth in construction	Employment growth in wholesale trade	Employment growth in retail trade	Employment growth in land transport	Employment growth in water transport
Employment growth in the leisure sector	0.35	0.08	0.41*	0.33	0.23	0.33	0.02	0.36	0.46**	0.39*
Exports of travel services	0.07	0.17	0.55**	0.01	-0.24	0.52**	0.18	0.14	-0.04	-0.01
Imports of travel services	0.14	0.29	0.52**	-0.02	-0.32	0.19	0.16	0.07	0.00	0.08
Increase in number of hotels	-0.40	0.14	0.04	-0.44*	0.23	-0.03	0.40*	0.28	0.19	-0.13
Increase in rooms in hotels	-0.36	0.12	-0.11	-0.49**	0.40*	-0.02	0.21	0.06	0.17	-0.22
Increase in beds in hotels	-0.36	0.12	-0.12	-0.49**	0.39	-0.05	0.19	0.04	0.16	-0.22
Increase in the number of nights spent in hotels by non-residents	-0.16	-0.54**	0.27	-0.02	-0.33	0.12	0.03	-0.20	-0.30	0.26
Increase in arrivals of foreign tourists	-0.12	-0.01	0.38	0.30	-0.29	0.36	-0.12	0.01	0.07	0.23
Growth of share of foreign tourists arrivals relative to the entire Europe	-0.06	-0.04	0.23	0.13	-0.24	0.19	-0.07	0.08	-0.11	0.09
Growth of share of foreign tourists arrivals relative to the entire world	-0.16	-0.19	0.05	0.21	-0.09	0.10	-0.08	0.02	-0.09	0.09
Growth of tourism expenditures of the EU citizens	-0.24	-0.12	0.29	0.07	0.51**	0.18	0.25	0.22	0.19	0.34

We have not found a significant effect of tourism indicators on employment in agriculture Greece.

Employment growth in the food industry is stimulated by growth of imports of travel services, and with a 1 year by decrease in the number of nights spent in

hotels by non-residents. But it is difficult to explain it from a theoretical point of view.

Employment growth in the production of clothing correlates with growth of employment in hotels and restaurants, growth of share of foreign tourists arrivals relative to the entire Europe, and with 1 year lag with growth of employment in hotels, restaurants, and leisure sector, exports and imports of travel services. Thus, production of clothes is closely linked to the tourism sector, which seems to confirm the thesis that buying clothes made of fur is also an important motivating factor for arrivals in Greece.

Employment growth in energy supply is stimulated by employment growth in air transport and with 1 year lag by reducing the number of hotels, number of rooms in hotels, and bed capacity in hotels. But it is also difficult to explain it from a theoretical point of view.

Employment growth in water supply is correlates with increase in number of hotels with a lag of 0 and 1 year, and growth of tourism expenditures of the EU citizens with 1 year lag.

Employment growth in construction correlates with the growth of employment in hotels and restaurants, and with 1 year lag with exports of travel services.

Employment growth in wholesale trade is positively affected by growth of employment in hotels and restaurants, increase in number of foreign tourists arrivals, and with 1 year lag by increase in number of hotels.

Employment growth in retail trade correlates with growth of employment in hotels, restaurants (with 0 and 1 year lag), and leisure sector.

Employment growth in land transport is positively affected by increase in imports of travel services, increase in number of hotels, and with 1 year lag by employment growth in hotels and restaurants, and leisure sector.

Employment growth in water transport is stimulated by employment growth in the leisure sector with 1 year lag.

Conclusions. Our analysis has proven a direct effect of international tourism performance on employment in air transport, hotels and restaurants, and leisure sector. Among the studied factors, employment in the air transport and leisure sector depends only on performance of the tourism sector. But employment in hotels and restaurants depends on both indicators of tourism sector and some general economic indicators (GDP dynamics, inflation and exchange rate). These general economic indicators are largely beyond the control of the Greek government. In particular, monetary policy has been transferred to the Eurosystem, Drachma has been replaced by the euro, the GDP of Greece as open economy largely depends on external conditions.

While employment in air transport is affected by physical indicators (arrivals, nights spent) and not by value indicators, employment in hotels and restaurants much more depends on value indicators (e.g. tourism exports, GDP, euro exchange rate). Employment in the leisure sector appeared to be more weakly associated with the trends in international tourism or its relationship is controversial from the theoretical point of view (only affect aggregate spending on tourism EU residents).

The tourism industry of Greece, depending on market conditions, directly provides employment for 380 thousand people in this area. Almost as many more jobs provided in related sectors. In particular we have proved indirect influence of the indicators of international tourism in Greece on employment in production of clothing and furs, construction, retail trade, land transport, and to a lesser extent in the public utilities, wholesale trade and water transport. At the same time, the impact on employment in agriculture and food industry is negligible.

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Appendix

Table A1

Sources and description of dependent and independent variables

Indicator	Source	Description
<i>Indicators of employment in international tourism sector (growth in % relative to the previous year)</i>		
Employment growth in air transport	Eurostat	Employment (Air transport – until 2008; Air transport – after 2008)
Employment growth in hotels and restaurants	Eurostat	Employment (Hotels and restaurants – until 2008; Accommodation + Food and beverage service activities + Travel agency, tour operator reservation service and related activities – after 2008)
Employment growth in the leisure sector	Eurostat	Employment (Recreational, cultural and sporting activities – until 2008; Travel agency, tour operator reservation service and related activities + Creative, arts and entertainment activities + Libraries, archives, museums and other cultural activities + Gambling and betting activities + Sports activities and amusement and recreation activities – after 2008)
<i>Indicators of employment in sectors indirectly related international tourism (growth in % relative to the previous year)</i>		
Employment growth in agriculture	Eurostat	Employment (Agriculture, hunting and related service activities – until 2008; Crop and animal production, hunting and related service activities – after 2008)
Employment growth in the food industry	Eurostat	Employment (Manufacture of food products and beverages – until 2008; Manufacture of food products + Manufacture of beverages – after 2008)

Indicator	Source	Description
Employment growth in the production of clothing	Eurostat	Employment (Manufacture of wearing apparel; dressing; dyeing of fur – until 2008; Manufacture of wearing apparel – after 2008)
Employment growth in energy supply	Eurostat	Employment (Electricity, gas, steam and hot water supply – until 2008; Electricity, gas, steam and air conditioning supply – after 2008)
Employment growth in water supply	Eurostat	Employment (Collection, purification and distribution of water – until 2008; Water collection, treatment and supply – after 2008)
Employment growth in construction	Eurostat	Employment (Construction – until 2008; Construction of buildings + Civil engineering + Specialised construction activities – after 2008)
Employment growth in wholesale trade	Eurostat	Employment (Wholesale trade and commission trade, except of motor vehicles and motorcycles – until 2008; Wholesale trade, except of motor vehicles and motorcycles – after 2008)
Employment growth in retail trade	Eurostat	Employment (Retail trade, except of motor vehicles and motorcycles; repair of personal and household goods – until 2008; Retail trade, except of motor vehicles and motorcycles – after 2008)
Employment growth in land transport	Eurostat	Employment (Land transport; transport via pipelines – until 2008; Land transport and transport via pipelines – after 2008)
Employment growth in water transport	Eurostat	Employment (Water transport – until 2008; Water transport – after 2008)

Indicator	Source	Description
<i>Other indicators of tourism sector (growth in % relative to the previous year or percentage points in the case of market shares)</i>		
Exports of travel services	Eurostat	Services exports travel
Imports of travel services	Eurostat	Services import travel
Increase in number of hotels	Eurostat	Hotels and similar accommodations (number of establishments)
Increase in rooms in hotels	Eurostat	Hotels and similar accommodations (bedrooms)
Increase in beds in hotels	Eurostat	Hotels and similar accommodations (bed-places)
Increase in the number of nights spent in hotels by non-residents	Eurostat	Nights spent at tourist accommodation establishments (non-residents in Hotels and similar accommodations)
Increase in arrivals of foreign tourists	WDI (World Development Indicators)	International tourism, number of arrivals
Growth of share of foreign tourists arrivals relative to the entire Europe	Market share of Greek tourism 2000-2012 SETE, Hellenic Statistical Authority, UNWTO 2013	Market Share of Greece in Europe (Arrivals)
Growth of share of foreign tourists arrivals relative to the entire world	Market share of Greek tourism 2000-2012 SETE, Hellenic Statistical Authority, UNWTO 2013	Share of Greece in World Market (Arrivals)
Growth of tourism expenditures of the EU citizens	WDI	International tourism, expenditures (current US\$) – European Union
<i>Other indicators (growth in % relative to the previous year or percentage points when measured as % of GDP, or other value)</i>		
Growth of the public deficit	WDI	Cash surplus/deficit (% of GDP)
Growth of foreign direct investment	WDI	Foreign direct investment, net inflows (% of GDP)
GDP growth	WDI	GDP growth (annual %)

Indicator	Source	Description
Growth of government consumption	WDI	General government final consumption expenditure (annual % growth)
Growth of gross capital formation	WDI	Gross capital formation (% of GDP)
Inflation	WDI	Inflation, consumer prices (annual %)
Growth of inflation	WDI	Inflation, consumer prices (annual %)
Growth of current transfers from abroad	WDI	Net current transfers from abroad (current US\$)
Real effective exchange rate	WDI	Real effective exchange rate index (2005 = 100)
Growth of budget revenues other than grants	WDI	Revenue, excluding grants (% of GDP)
Growth of subsidies and other transfers from the budget	WDI	Subsidies and other transfers (% of expense)
Growth of tax revenues	WDI	Tax revenue (% of GDP)
Growth of share of tax revenues in the budget	WDI	Taxes on goods and services (% of revenue)
Growth of share of direct taxes in government revenue	WDI	Taxes on income, profits and capital gains (% of revenue)
GDP growth of the world	WDI	GDP growth (annual %) – World
EU GDP growth	WDI	GDP growth (annual %) – European Union

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