The contribution of Tourism to the Greek economy in 2017

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The present study is a first estimate based on provisional data – it will be revised when the final figures are announced.
Introduction

Tourism as a ‘horizontal’ activity

Tourism, contrary to manufacturing or primary sector activities, is a horizontal and not a vertical activity. This means that tourism is an activity that is determined from the demand it generates for products and services, whereas manufacturing activities or activities in the primary sector are activities associated with production and supply. For example, the metallurgy sector consists of companies producing metal products and the cereals sector of agricultural companies that produce cereals. On the contrary, the activity of tourism affects many sectors of the economy, such as transport (e.g. travel by airplane and transfer by bus), accommodation (in hotel or elsewhere), dining (in restaurants or bars inside or outside the accommodation establishment), entertainment (including visits to sites) and consumption in stores. Therefore tourism is an activity that - in any case - affects many and different parts of the social and productive fabric of a country.

Tourism as an Activity in Greece

The importance of tourism as a factor in the country’s GDP and employment will be examined in detail below. Briefly, tourism in recent years has served to shore up the Greek economy against the recession and functioned as a powerhouse to reduce unemployment. Moreover, the tourism sector is one of the few areas to draw the interest of investors and as a result of its significance, it could function as a key driver of growth in Greece. Due to the dispersion of tourist destinations across Greece, tourism plays a crucial role in the national income in many of the country’s regions. On the other hand, tourism is intensely seasonal due to the fact that Sun & Sea holidays, which make up the largest European product market, are also Greece’s main tourism product.

Purpose of this Study

Taking into consideration the importance of tourism for the Greek economy, it is necessary to record its economic figures in order to formulate and express opinions and choices regarding the strategy to be followed in order to develop and resolve any problems of Greek tourism. This study aims at contributing to this end, offering a basis for discussion, by recording the following figures of Greek tourism:

- the contribution of tourism to the GDP of the Greek economy through the detailed recording of the figures for Inbound Tourism, Domestic Tourism, Investments in Tourism and its Indirect and Induced Effects on the economy;
- the regional dimension of tourism, i.e. its contribution to the GDP of the country’s Regions;
- the contribution of tourism to maintaining the country’s Balance of Payments equilibrium;
- the contribution of tourism to employment.
Inbound Tourism

The contribution of tourism to Greek economy
INBOUND TOURISM

Arrivals and Revenues of Inbound Tourists 2017

<table>
<thead>
<tr>
<th>Inbound Tourism, 2017</th>
<th>Arrivals</th>
<th>%</th>
<th>Revenues (€)</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Jan</td>
<td>520,436</td>
<td>2%</td>
<td>163,129,400</td>
<td>1%</td>
</tr>
<tr>
<td>Feb</td>
<td>444,404</td>
<td>2%</td>
<td>143,123,000</td>
<td>1%</td>
</tr>
<tr>
<td>Mar</td>
<td>627,577</td>
<td>2%</td>
<td>193,468,000</td>
<td>1%</td>
</tr>
<tr>
<td>Apr</td>
<td>1,009,699</td>
<td>4%</td>
<td>456,541,640</td>
<td>3%</td>
</tr>
<tr>
<td>May</td>
<td>1,982,124</td>
<td>7%</td>
<td>1,035,619,000</td>
<td>7%</td>
</tr>
<tr>
<td>Jun</td>
<td>3,356,288</td>
<td>12%</td>
<td>1,976,755,000</td>
<td>14%</td>
</tr>
<tr>
<td>Jul</td>
<td>5,141,621</td>
<td>19%</td>
<td>2,840,325,000</td>
<td>20%</td>
</tr>
<tr>
<td>Aug</td>
<td>5,813,441</td>
<td>21%</td>
<td>3,450,330,172</td>
<td>24%</td>
</tr>
<tr>
<td>Sep</td>
<td>4,639,734</td>
<td>17%</td>
<td>2,404,511,353</td>
<td>17%</td>
</tr>
<tr>
<td>Oct</td>
<td>2,355,849</td>
<td>9%</td>
<td>1,115,131,000</td>
<td>8%</td>
</tr>
<tr>
<td>Nov</td>
<td>740,535</td>
<td>3%</td>
<td>208,082,000</td>
<td>1%</td>
</tr>
<tr>
<td>Dec</td>
<td>562,475</td>
<td>2%</td>
<td>179,857,525</td>
<td>1%</td>
</tr>
<tr>
<td>Total</td>
<td>27,194,183</td>
<td>100%</td>
<td>14,202,462,079</td>
<td>100%</td>
</tr>
</tbody>
</table>

Air                      17,946,012  66%
Road                     8,267,454   30%
rail                     11,227       0%
By sea                   969,490      4%

In 2017, Greece welcomed almost **27.2 million tourists**, permanent residents of other countries ("Non-residents") and received nearly €**14.2 billion**.

Of these, **66.0%** arrived by air – which has traditionally been the main mode used by foreign tourists travelling to Greece, **30.0%** by road and **4.0%** by sea, while the percentage of tourists choosing to travel to Greece by train is negligible.

As regards the fluctuation of revenues during the year, a marked seasonality was observed, with **61.0%** of revenues coming in the 3rd quarter of the year. Furthermore, **24.0%** of revenues were recorded in the 2nd quarter of the year which marks the beginning of the tourist season. This is not surprising, since **81.0%** of total arrivals in Greece are recorded in these two quarters.

For the 1st and 4th quarters, both arrivals and revenues are relatively smaller, with **6.0%** of arrivals and **4.0%** of revenues in the 1st quarter, and **13.0%** of arrivals and **11.0%** of revenues in the 4th quarter.

In addition, the figures demonstrate the great dependence of tourism in Greece on Sun & Sea holidays, since **81.0%** of arrivals and **86.0%** of revenues are recorded over the summer period (April-September).
In 2017, the inbound tourism recorded an increase in arrivals (+9.7%) and revenues (+11.7%) hitting new records of 27.2 million and €14.2 bn respectively. In particular, revenues after the drop in 2016 (-6.8%) increased significantly, exceeding the 2015 revenues which had been the previous year of record travel receipts. At the same time, the overnight stays increased by +10.2%, also reaching a new record of 210 million overnights.

The Average per Capita Expenditure reached €522.3, up +1.6% mainly due to a +1.1% increase in Overnight Stay Expenditure (from €67.0 to €67.7) and secondarily due to the marginal increase of the Average Length of Stay by +0.5% (7.7 overnight stays).

Based on the methodology followed by the BoG to record revenues, they do not include the part of the tourist’s expenditure that remained primarily abroad, e.g. the fee and profit of the Tour Operator, but include only the part of the tourist’s expenditure that was consumed in Greece, e.g. the hotel’s income or the tourist’s expenditure in stores.

Similarly, they do not include revenues from cruises or from the air and marine transport of inbound tourists travelling to Greece, which are recorded separately and are summed with all the other transport expenses, e.g. cargo, or the data from cruise passengers. These additional revenues, along with domestic tourism expenditures, are examined in detail below.

Robertson

The data of the Frontier Survey by the Bank of Greece presented above do not include cruise passengers, apart from those who finish their cruise in Greece and depart from a Greek airport or port. This is however a very small percentage of these passengers. Therefore, in order to record cruise passenger traffic and revenues, the BoG also conducts the Cruise Survey.

According to data in this survey, in 2017 Greece welcomed almost 3.0 million cruise tourists, -9.3% less than in 2016, and collected receipts of nearly € 462 million, up by +1.0%.

In spite of the drop of cruise passengers (-9.3%), revenues increased by +1.0%. This is mainly due to the increase in overnights stays by +21.4% (from 3,017 thousand in 2016 to 3,661 thousand in 2017).

The seasonality of cruise passengers is also high, but lower than that of inbound tourism, since in the 3rd quarter we have 58.8% of arrivals and 48.0% revenues, and in the 2nd and 4th quarter 19.8%/19.8% of arrivals and 33.6%/15.5% of revenues respectively. In the 1st quarter, cruises are practically non-existent with only 1.5% of arrivals and 2.9% of revenues.

In addition to the above, in order to calculate total revenues from cruises, the expenses of cruise companies must also be taken into account which in 2016 was € 169 million. Consequently, with corresponding proportional growth, such as the revenues reflected in the Bank of Greece Cruise Survey, these revenues are estimated at € 171 million for 2017.
Air Transport and Marine Transport Revenues

As already mentioned, the Frontier Survey of the BoG does not include the expenditure of tourists for transport from and to Greece. Part of this expenditure is received by Greek companies, and therefore is an income for the country originating from tourism activities. Another part of this expenditure is paid to foreign companies which then pay part of their income to serve their customers (e.g. for the staff they employ in Greece or for handling company fees). In order to determine the country’s income from air and marine transport, we contacted professional associations and companies active in these sectors (airlines, coastal shipping companies, handling companies, etc.).

According to the data we collected, the revenues of Greek businesses from air and marine transport activities in 2017 are estimated of €1,432 million (+8.0%) for air transport and €90 million (-32.0%) for marine transport, compared to €1,326 million and €133 million respectively for 2016. The reduction in maritime transport revenues is due to the sale of MINOAN ships to GRIMALDI.

Road and Rail Transport Revenues

Road Transport: the part of non-residents’ expenditure related to consumption inside Greece (e.g. gasoline consumption) is recorded by the BoG Frontier Survey, while the part of the expenditure related to consumption outside of Greece does not concern this study.

Rail Transport: the part of non-residents’ expenditure related to consumption inside Greece is recorded by the BoG Frontier Survey, while the part of the expenditure related to consumption outside of Greece does no concern this study. The estimated additional revenues for the Hellenic Railways Organisation (OSE) is considered negligible, since estimates about the number of tourists travelling into the country by rail come to fewer than 15,000.
DOMESTIC TOURISM

The last available estimate of the expenditure of domestic tourism is from the "Vacation Survey" by ELSTAT for 2016. According to this survey, domestic tourism expenditure for trips of more than 1 overnight stay was €1,287 million, while in 2015 it was €1,264 million, up +1.8% compared to 2015. It is worth noting that in 2008 the corresponding expenditure was €3,868 million. Therefore, during the economic crisis period, domestic tourism decreased by approximately -66.7%.

For journeys with at least 1 overnight stay, it appears that:
- the number of journeys dropped by -5.2%,
- the spend per trip increased by +7.4%,
- while the total expenditure decreased by +1.8%.

This picture is further demonstrated by the following table of journeys with at least 4 overnight stays.

<table>
<thead>
<tr>
<th>Domestic Tourism Trips with at least 4 overnights</th>
<th>2008</th>
<th>2014</th>
<th>2015</th>
<th>2016</th>
<th>%Δ</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trips</td>
<td>6,831,852</td>
<td>3,743,868</td>
<td>3,368,957</td>
<td>3,253,352</td>
<td>-3.4%</td>
</tr>
<tr>
<td>Expenditure (€)</td>
<td>3,159,801,317</td>
<td>1,137,771,331</td>
<td>1,059,551,179</td>
<td>1,093,222,962</td>
<td>3.2%</td>
</tr>
<tr>
<td>Spend per Trip (€)</td>
<td>463</td>
<td>304</td>
<td>315</td>
<td>336</td>
<td>6.8%</td>
</tr>
</tbody>
</table>

Between 2015 and 2016, as a result of the recession:
- the number of journeys with at least 4 overnight stays dropped by -3.4%,
- the spend per trip increased by +6.8%,
- as result, the total expenditure increased by +3.2%.

According to domestic flight arrivals, in 2017² there is a slight increase in domestic tourism compared to 2016. Consequently, the domestic tourism expenditure for 2017 estimated at €1,323 million, up +2.8% compared to 2016.

² +2.8% domestic air traffic
Tourism: Investments and indirect benefits
The contribution of tourism to Greek economy

According to our assessment, total investments by hotels in 2014 amounted to ~€785 million. Part of this amount was for imported goods and services and the rest for goods and services of domestic added value. The share for domestic added value is estimated at ~59.0% for new construction and ~44.0% for renovations. Therefore, investments in the hotel sector for 2014, net of imports, is estimated at ~€400 million.

According to the Foundation for Economic and Industrial Research (IOBE, 2012), revenues for accommodation which, in addition to hotels, also includes rented rooms, villas and others, represent 45.0% of tourism activity. In the absence of data on other sectors, but also taking into account that the hotel sector is just one sub-segment of accommodation, one could on a pro rata basis estimate that the total investment in other sectors is at least €960 million. Recognising that, compared to other tourism-related sectors, the hotel sector is considerably more capital intensive and in the interest of being rather conservative in our projections, we diminish that amount by 1/3 and estimate total expenditures in other sectors at ~€640 million.

Compared to the hotel sector, other sectors also have a lower ratio of domestic expenditure in investment due to the fact that they invest more in machinery and equipment and less in buildings; a conservative estimate puts domestic expenditure at 1/3 of total investment. Therefore, investments in other sectors for 2014, also net of imports, is estimated at ~€215 million.

Based on the above, total investment activity for tourism in 2014 exceeds €1.4 billion (gross), ~€615 million of which reflects domestic expenditure. In the absence of other data, we estimate the same amount for 2015.

The data are based on a SETE Intelligence survey to be published soon which is based on the analysis of the balance sheets for FY 2014 of hotel companies owning 1,982 units with 131,884 rooms (32% of the total). By category, they represent 50% of 5* rooms, 41% of 4* rooms, 33% of 3* rooms, 21% of 2* rooms and 5% of 1* rooms.

The survey will be released when the processing of the balance sheets for 2015 has been completed. At this point the estimate of investments for 2015 and 2016 will also be reviewed.

The data are provisional and are subject to change.
THE INDIRECT BENEFITS OF TOURISM

The adjacent table shows the multipliers of various sectors of the Greek economy according to a study of the Centre of Planning and Economic Research (KEPE) (2014), as well as the percentile contribution of each sub-sector in the Greek tourism activity according to the IOBE study (2012).

According to the data in the table, the resulting tourism multiplier for the Greek tourism economy amounts to 2.65, which means that for every €1.0 from tourism activity, an additional €1.65 is generated from indirect and induced economic activity, and therefore the GDP increases by €2.65 in total.

According to IOBE (2012), every €1.0 created by tourism activity, generates additional indirect and induced economic activity of €1.2 and therefore generates a total of €2.2 in GDP. That is, the multiplier of tourism activity amounts to 2.2.

Therefore, the multiplier of the tourism activity ranges between 2.2 (according to IOBE) and 2.65 (based on KEPE multipliers).

<table>
<thead>
<tr>
<th>% Distribution of Tourism Revenues</th>
<th>Multiplier</th>
</tr>
</thead>
<tbody>
<tr>
<td>Accommodation</td>
<td>45.3</td>
</tr>
<tr>
<td>Food services</td>
<td>18.0</td>
</tr>
<tr>
<td>Maritime transport</td>
<td>9.0</td>
</tr>
<tr>
<td>Road transport</td>
<td>7.1</td>
</tr>
<tr>
<td>Air transport</td>
<td>5.4</td>
</tr>
<tr>
<td>Retail trade</td>
<td>4.9</td>
</tr>
<tr>
<td>Entertainment</td>
<td>3.8</td>
</tr>
<tr>
<td>Travel agencies</td>
<td>3.7</td>
</tr>
<tr>
<td>Car rental</td>
<td>1.8</td>
</tr>
<tr>
<td>Conferences</td>
<td>1.0</td>
</tr>
<tr>
<td>Weighted Average</td>
<td></td>
</tr>
</tbody>
</table>

Source: KEPE, IOBE—Processing: SETE Intelligence

For every €1 tourism revenue, GDP increases by €2.65.
THE OVERALL IMPACT OF TOURISM ON GREECE’S GDP

According to ELSTAT 1st estimate, the Greek GDP at current values came to €177,735 million in 2017, up +2.0% compared to 2016 (€174,199 million).

Summarising the data on tourism provided above and comparing them with the country’s GDP, it appears that:

- the direct contribution of tourism to the GDP amounted to 10.3% or about €18.3 billion, up +9.3% compared to 2016;
- taking into consideration the multiplier effects, the total contribution amounts to between €40.3 billion and €48.5 billion, or between 22.6% and 27.3% of the GDP, making tourism a key pillar of the Greek economy;
- GDP recorded an increase by +2.0%, while tourism activity increased by €1,559 million (direct) or approximately €3,430/4,132 million indirectly and directly;
- 90.0% of revenues from tourism are generated from abroad, meaning that tourism is almost exclusively an export activity.

### Table: Expenditure Category

<table>
<thead>
<tr>
<th>Expenditure Category</th>
<th>2016, m €</th>
<th>2017, m €</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inbound Tourist Expenditure</td>
<td>€12,749</td>
<td>€14,202</td>
</tr>
<tr>
<td>Cruise Tourist Expenditure</td>
<td>457</td>
<td>462</td>
</tr>
<tr>
<td>Cruise Company Expenditure</td>
<td>169</td>
<td>171</td>
</tr>
<tr>
<td>Air transport</td>
<td>1,326</td>
<td>1,432</td>
</tr>
<tr>
<td>Maritime transport</td>
<td>133</td>
<td>90</td>
</tr>
<tr>
<td>Domestic tourism</td>
<td>1,287</td>
<td>1,323</td>
</tr>
<tr>
<td>Investments</td>
<td>615</td>
<td>615</td>
</tr>
<tr>
<td>Direct Tourism Impact</td>
<td>€16,736</td>
<td>€18,295</td>
</tr>
<tr>
<td>as % GDP</td>
<td>9.6%</td>
<td>10.3%</td>
</tr>
<tr>
<td>IOBE Multiplier</td>
<td>2.2</td>
<td>2.2</td>
</tr>
<tr>
<td>Direct and Indirect</td>
<td>€36,818</td>
<td>€40,249</td>
</tr>
<tr>
<td>as % GDP</td>
<td>21.1%</td>
<td>22.6%</td>
</tr>
<tr>
<td>KEPE Multiplier</td>
<td>2.65</td>
<td>2.65</td>
</tr>
<tr>
<td>Direct and Indirect Result</td>
<td>€44,349</td>
<td>€48,481</td>
</tr>
<tr>
<td>as % GDP</td>
<td>25.5%</td>
<td>27.3%</td>
</tr>
<tr>
<td>GDP</td>
<td>€174,199</td>
<td>€177,735</td>
</tr>
</tbody>
</table>

Source: SETE Intelligence

GDP data are subject to change.
In the absence of data on the regional distribution of total tourism expenditure, its estimate is approximate, based on regional distribution of incoming tourism revenue.

These data are compared with the GDP estimation of each region, taking into account both the GDP of 2017 and the last available regional GDP distribution (2015).

Due to the approximate nature of the table data, the picture that emerges is largely indicative.

Nevertheless, the contribution of tourism to the GDP of Crete (47.4%), the South Aegean (76.8%) and the Ionian Islands (73.0%) is impressive. It is also interesting that - excluding Attica – the South Aegean, where the main economic activity is tourism, has the highest per capita GDP, while Crete and the Ionian Islands are among the highest.

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**Source:** BoG – Processing SETE Intelligence

* The distribution of the GDP of the Regions is estimated taking into account the 2015 percentage allocation.
Tourism is one of the most important sources of revenues of the country for balancing the Balance of Payments. Specifically, in 2017, the travel receipts covered 80.0% of the balance of trade (the same as in 2016).

In fact, if revenues from air transport, cruises and others are taken into account, which the BoG calculates under different line items in the balance of payments, then the contribution of inbound tourism in covering the balance of trade rises to 89.0% (the same as in 2016).

Moreover, excluding exports of fuel and ships, receipts from tourism represent 74.0% (compared to 73.0% in 2016) of receipts from Greece’s exports of all other products. In addition, if receipts from air and marine transport from inbound tourism are included in travel receipts, then the total is equally to 82.0% of the total receipts from the exports of all goods except for ships and fuel.

Also, the travel receipts in 2017 represent 53.0% (compared to 54.0% in 2016) of receipts from Greece’s exports of all other products. If receipts from air and marine transport from inbound tourism are included in travel receipts, then the total is equally to 59.0% (compared to 61.0% in 2016) of the total receipts from the exports of all goods.
Aside from its major contribution to Greece’s GDP, tourism is also an important contributor to employment and, in recent years has contributed significantly to reducing unemployment. This trend continued in 2017, especially in the 2nd and 3rd quarters, where employment in tourism increased +6.6% and 4.6% respectively. On the other hand, for the first time in the last 3 years, the increase in employment in all sectors for the 1st and 4th quarter was higher than in tourism.

As already stated (see table on p. 12), accommodation and catering represent 63.3% of tourism expenditure in Greece.

The contribution of tourism to Greek economy
In conclusion, tourism in 2017:

- recorded an increase of revenues from abroad of +11.4% or +€ 1,453 million;
- the overall increase in tourism activity is estimated at +€ 1,559 (from € 16,736 million direct contribution to GDP in 2016 to € 18,295 million in 2017);
- 10.3% is the direct contribution of tourism to GDP, whereas its direct and indirect contribution is estimated at between 22.6% and 27.3%.
- from each €1.0 of tourism revenue, another €1.20 to €1.65 of additional economic activity is generated. As a result, for each €1.0 of tourism income, the country's GDP increases by €2.20 to €2.65, meaning that tourism is a sector with a great dispersion of benefits in the economy;
- for three island regions (Crete, South Aegean, Ionian), it contributes directly by generating well over 47.4% of the GDP of these regions. These regions have one of the highest per capita GDPs in the country, supporting the view that tourism leads to improved living standards in the areas where it is being developed;
- of its peak (Q3), it contributes directly 16.9% of employment and overall (directly and indirectly) between 37.2% and 44.8%, while it had a key contribution in reducing unemployment;
- travel receipts covered 80.0% of the balance of trade deficit. These receipts are equal to 74.0% of receipts from the exports of all other products exported by the country, excluding receipts from the export of ships and fuel;
- If receipts from air and marine transport from inbound tourism are added to travel receipts, then the total is equal to 82.0% of receipts from exports of all goods except ships and fuel.

The above clearly demonstrate the significance of tourism for the Greek economy, and the sector's dynamism.
Sources

- Hellenic Statistical Authority (ELSTAT), DOMESTIC TOURISM, WORKFORCE, ARRIVALS, REGIONAL DISTRIBUTION
- Cruise Line Industry Association
- Association of Greek Passenger Shipping Companies
- Hellenic Chamber of Hotels (HCH)
- Foundation for Economic and Industrial Research (IOBE) (2012), The impact of tourism on the Greek economy
- Aris Ikkos (2015), The Contribution of Tourism to the Greek Economy in 2014 (INSETE)
- CTM (2015), “Guidelines for the development of cruises in Greece” (INSETE)
- CLIA (2016), Contribution of Cruise Tourism to the Economies of Europe 2015
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