INTRODUCTION

The number of international tourist trips in the world has been increasing for many years. The consequence of this phenomenon is a growing demand for reliable information on the economic importance of tourism for the national economies of individual countries. This applies both to countries with highly developed tourism economies and countries in which the importance of tourism for the development of the country is underestimated.

The basic and widely used tool for measuring the performance of all sectors of the economy is the system of national accounts in individual countries. These data enable observation of processes taking place in an entire economy at the production stage, the generation and distribution of income, as well as showing the state of the economy at the end of the analysed period. Unfortunately, national accounts do not show the real contribution of tourism to the processes of creating added value, tax revenues of the State, gross domestic product (GDP), or job creation [Dziedzic 2003].

Challenges arise when trying to measure the economic value added for tourism, because tourism is not a single sector of the economy that is clearly separated on the supply side. A tourist package usually consists of several products, in various areas such as ‘hotels and restaurants’, ‘transport’, ‘culture and recreation’. Measurement of the economic impact of tourism-related activities based solely on the supply side approach is applied in the standard national accounts system and leads to a significant understatement of the real economic value added for tourism.
economic effects of tourism, and thus to a weakening of its position compared to other sectors of the economy [Tourism Satellite Account... 2001].

It is easier to define tourism on the demand side, i.e. to determine the value of tourist goods and services purchased in a given year [Dziedzic 2017, Podhorodecka and Cobb 2019].

Problems assessing the importance of tourism in the 1990s, resulted in the development and use of a metric called the ‘tourism satellite account’ (TSA). TSA is defined as a method of measuring the direct economic contributions of tourism consumption to a national economy. Its unique approach derives from employing the principles and structure of the internationally-adopted System of National Accounts to measuring the direct economic impact of tourism [Frechtling 2009]. This account does not constitute a subsystem in standard national accounts, but due to its very close and clear connections with national data, it is a ‘satellite’ to the national accounts system [Tourism Satellite Account 1999, Tourism Satellite Account... 2001].

The impact of tourism on the development of a national economy is analysed in two ways. On one hand, there is the term ‘tourism industry’, which is defined as ‘tourism in the narrow sense’ [Travel & Tourism Economic Impact 2012]. Expenditure incurred by tourists is considered as well as travel for goods and services directly related to tourism, e.g. spending on hotels and restaurants, and travel agencies. On the other hand, the concept of a ‘tourism economy’ includes expenditure not only directly related to tourism, but also indirect expenditure, i.e. expenses that would not have been incurred were it not for tourism (e.g. expenses incurred by tourists and travellers on transport, food, fuel, insurance). The indirect effects of the impact of tourism on the economy result primarily from the activation of branches not directly related to tourism (e.g. agriculture, construction, and rail transport) and this part of GDP and employment, which would not exist if it were not for tourism.

The Polish tourism satellite account presents a comprehensive picture of the Polish tourism economy in statistical terms and is most useful for monitoring its impacts and setting directions for development. Its advantage is the presentation of basic macro-economic aggregates, which allows the assessment of tourism in comparison to other areas of the economy [Dziedzic 2003, Balinska 2007].

The purpose of this article is to answer the question: what is the share of Poland’s tourism economy in relation to that of Europe? The second aim to answer the question: how has the Polish tourism economy responded to the global economic crisis, and has this reaction been similar to European markets? The following hypotheses were adopted: the share of the tourism economy in Poland is smaller than the average for Europe, and the Polish tourist economy reacted better to the global economic crisis than other European countries.

The paper is organised in the following way: the next section presents a brief literature review. This is followed by the development of methodology in order to test the hypotheses. The following section will apply this methodology to the tourism sector in Poland and the European Union. The next section presents the results, and the last section addresses discussion of the results, and conclusions.

Measuring the impact of tourism and its role in jurisdictional economic development is becoming more important as large numbers of individuals in many parts of the world become more affluent and more curious about exploring other parts of the world [OECD 2016]. Measuring the impact of tourism is a growing strand of the literature [Cárdenas-García and Pulido-Fernández 2017]. Documenting trends in European tourism has been the subject of great attention from the UN World Tourism Organization [UNWTO 2018.]. As more individuals participate in the tourism service economy, greater analytical and policy prescriptions appear in academia, government and business literatures [Balinska 2007].

Tourism in Poland had been analyzed by the data from the tourism satellite account, which was financed by the central government [Baran et al. 1998, Dziedzic 2003, 2017]. Tourism in global economic crises was discussed by T. Dziedzic et al. [2010], V. Chan [2011] and E. Smeral [2011].

**METHODOLOGY**

One of the key elements of TSA is the calculation of the tourist consumption coefficient, which allows us to determine what part of the production of various sectors of the economy is produced solely in order to
satisfy the tourism demand. The need for such a procedure can be explained, for example, using the example of transport, which is a very important tourist service. Tourists make up a significant proportion of buyers of transport services, but the majority of journeys by rail are those taken for travel to work, not travel for tourism purposes. A similar situation occurs in cultural and recreational services: not everyone who visits a museum or swimming pool is a tourist. It is obvious, therefore, that including all of these production areas into tourism would lead to significant over-reporting, but not taking them into consideration would lead to understating the true economic effects of tourism.

**POLISH EXPERIENCE IN PREPARING THE TOURISM SATELLITE ACCOUNT**

Due to the complex nature of the tourism economy, the assessment of the economic effects of tourism requires the use of various sources of statistical information and the use of appropriate tools. The methodological basis for compiling this type of summary includes the Recommended Methodological Framework (RMF), the Polish adaptation of which has been used to prepare the Tourism Satellite Account (TSA) for Poland for 2000–2002 and 2005 [Tourism Satellite Account... 2001]. This methodology is very extensive when it comes to the scope of analyses, and consequently requires the use of detailed data developed as part of national accounts and data from surveys of tourism demand.

Appreciating the growing importance of tourism for the national economy of Poland and the role of the analytical tool that the tourism satellite account has become, Poland began to work on the preparation of TSA for Poland in 1998, because there was a need to improve tourism statistics before entering Poland to European Union. As a result, an experimental satellite tourism account for Poland for years 1995 and 1996 was generated – issued by the Central Statistical Office, and co-financed by the Office of Physical Culture and Tourism [Baran et al. 1998]. Then, the adaptation of the TSA methodology for Polish conditions was prepared for the years 2000–2002 and 2005.

The TSA results are obtained with considerable delay because the necessary data from the final supply side is only available after approximately three years from the reference year. In order to obtain more recent results, a simplified TSA methodology has been developed, which is partly based on the projection of results obtained under the full TSA, and partly on the study of tourism consumption in the reference year. This methodology was used to estimate the economic results of tourism in 2003–2006 and 2008–2010.

**THE SIGNIFICANCE OF THE TOURISM ECONOMY IN POLAND**

According to the results of the accounts that have been carried out up to now, the economic role of tourism in the economy is much higher than the results from the data presented in national accounts. National accounts, which are drawn up in the form of five institutional sectors and by type of activity, do not show the real contribution of tourism to the processes of adding added value, state tax receipts, gross domestic product (GDP) etc. In the Polish Classification of Activities [Rozporządzenie... 2007], the only section strictly ‘tourist’ is Section I Accommodation and catering. Other sections of PKD 2007, such as: section N Administering and supporting activities (N 79 is the activity of tour operators and agents), section H Transport and storage, section R Activities related to culture, entertainment and recreation, section G Trade; repair of motor vehicles – these are sections that to a lesser or greater extent include tourism activities. To estimate this share, it is necessary to prepare an TSA. Two key indicators that we receive as a result of the preparation of TSA show the share of tourism in generating the country’s GDP and the share of people working in specific types of tourist activities in the total number of employed people in the national economy.

From the data presented in Figure 1 it can be seen that the amount of the so-called ‘Tourist’ GDP in the period 2000–2010, fluctuated and its decline was recorded in the final period. It should be remembered that the years 2008–2009 were a period of intensifying financial and economic crisis in the world, and tourism is a sector sensitive to all economic fluctuations. In addition, the total GDP growth rate was higher than the growth rate of tourist GDP, which affected its contribution to GDP. Figure 2 shows results from the
second significant indicator: the share of the number of people employed in the total number of employed persons in Poland. This index, after slight fluctuation at the beginning of the 21st century, has become stable and remains at 5% of the total workforce. It should be noted that despite the continuing share at the unchanged level, the number of people working in specific types of tourist activity is constantly increasing (from 5.9 in 2000 to 6.0 in 2010, with an exceptional year 2001 when the number of employees in CRDT was 7.8% of people).

In Poland, the share of the tourism economy in GDP in 2007–2011 fluctuated slightly, but remained high at a contribution of around 5–6% of GDP. In 2007 it amounted to 6%, while in 2011 – around 4.9% – with simultaneous increase in inflows from the tourist economy. In the analyzed period, the largest inflows from the tourism economy were recorded in 2008 (they amounted to PLN 75 billion) and in 2010 (PLN 74.2 billion). In 2011, expenditure in the tourism economy totaled PLN 72.7 billion and was PLN 2.7 billion higher than in 2007.

It should be emphasized that the above declines and fluctuations in years 2008–2010 were the result of the global economic crisis. Tourism is a sector very sensitive to economic changes – that is why stimulating and implementing investment activities that ensure its continuity is so important for its development. At the same time, tourism in the Polish economy is starting to be perceived as a significant and dynamically developing sector. According to WTTC forecasts, the prospect of developing the tourism sector is facing Poland in such a way that the share of the tourism economy increases to 5.8% of GDP – an increase from PLN 72.7 billion to over PLN 120 billion (in 2022) [World Travel & Tourism Council 2012]. This illustrates the significant potential of this sector in stimulating the growth of Poland’s GDP in the following years.

**Fig. 1.** The share of ‘tourist GDP’ in total GDP in the years 2000–2015 on the basis of TSA (%)
Source: elaboration based on data of Ministerstwo Gospodarki, Pracy i Polityki Społecznej [2003a, b] and Ministerstwo Sportu i Turystyki [2007].

**Fig. 2.** The share of persons working in specific types of tourist activities to all persons working on the basis of TSA in the years 2000–2015
Source: elaboration based on data of Ministerstwo Gospodarki, Pracy i Polityki Społecznej [2003a, b] and Ministerstwo Sportu i Turystyki [2007].
According to the estimates of the Institute of Tourism, in 2011 the expenses of foreigners in Poland amounted to PLN 31.5 billion and were 8% higher than in 2007. Expenses of Polish citizens for domestic travel were in the period of 2007–2011 at the level of approx. 20–21 PLN billion and only slightly fluctuated. The expenses of Poles on foreign travels in the analyzed period amounted from PLN 6.7 billion in 2011 to PLN 10.2 billion in 2010. The largest increase was recorded in 2010 and 2008 – PLN 9.2 billion. Practically the same level in 2007–2011 was spent on business trips: over PLN 10 billion, of which in 2011 there was a significant increase to the level of PLN 11.3 billion. Similarly, the state’s expenditure on tourism remained unchanged around PLN 3 billion (in 2011, it amounted to exactly PLN 3.3 billion). Tourism plays a significant role in Poland’s trade exchange. In 2011, tourism exports amounted to PLN 31.5 billion, which accounted for 4.7% of total exports. The tourist export increased by PLN 2.4 billion compared to 2007 (increase by 8%). In total, in 2007–2011, the share of tourism in exports remained at the level of 5–6%.

In 2011, there was a decline in tourist imports (Table 1) to the level of PLN 11.7 billion from PLN 18.3 billion in 2010. In general, in 2007–2011, two significant decreases in tourist imports were observed: in 2009 and in the aforementioned 2011. Reduction of expenses of Polish residents during international travel in the above-mentioned years reflect trends related to the global economic crisis. At the time, the expenses of Polish citizens on foreign travels did not decrease in such a visible way (decreases in 2009 and 2011 by PLN 1.3 billion and PLN 3.5 billion, respectively). This shows that the decrease in expenses when traveling abroad was not the result of a similar decline in the number of trips abroad – Poles went abroad, but limited their expenses during these trips. Overall, the balance of trade exchange with tourism increased significantly in 2007–2011 from PLN 9.5 billion to PLN 19.8 billion, with a decrease in 2008 (PLN 5.7 billion). This is the result of the increase in tourist exports by 8% with a simultaneous decrease in imports by 40%.

THE IMPACT OF THE GLOBAL ECONOMIC CRISIS ON THE TOURISM SECTOR IN POLAND

The financial crisis dominated the economic situation in the world in 2009, and its effects have altered the condition of the global economy. There were problems with inflation and taxes caused by the introduction of ‘Economic support packages’ and problems related to the increase in public debt and real interest rates that weaken the rate of economic growth [Dziedzic et al. 2010].

The crisis has significantly influenced the transformations on the economic map of the world, leading to the growing importance of developing countries (emerging markets). For example, in 2009 compared to 2008 the rate of economic development in Southeast Asia and South Asia was –6.5% (European Union: –4.0%, United States: –2.3%). The crisis has also contributed to the rise in unemployment in highly developed countries (United States increase of unemployment rate from 4.6% in 2007 to 9.6% in 2010; United Kingdom 5.6% in 2008, 7.7% in 2010) [The World Bank Group].

In the global travel and tourism market, the crisis has been very strongly recorded: in 2009, the global tourist demand decreased by 10.2%. The slowdown affected both international traffic as well as domestic

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<td>Gross domestic product (PLN billion)</td>
<td>1629.4</td>
<td>1656.9</td>
<td>1720.4</td>
<td>1800.2</td>
<td>1861.1</td>
<td>1989.3</td>
<td>2115.7</td>
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<td>Incomes from tourism economy by the Institute of Tourism (PLN billion)</td>
<td>98.1</td>
<td>100.8</td>
<td>89.9</td>
<td>102.4</td>
<td>110.3</td>
<td>116.7</td>
<td>124.0</td>
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<tr>
<td>Share of tourism economy in GDP (%)</td>
<td>6.0</td>
<td>6.1</td>
<td>5.2</td>
<td>5.7</td>
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Source: elaboration based on data: Central Statistical Office of Poland, Institute of Tourism, Ministry of Sport and Tourism.

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traffic and business expenses as well as investments in the tourism sector. This is illustrated by the fact that the weakening affected the entire tourism economy more than just the tourist industry – the crisis affected the behavior of tourists who reduced tourist-related expenses. The data presented by UNWTO shows that the decline in revenue from arrivals was greater than the decline in traffic: the number of international trips decreased in 2009 by 4.3%, and global revenues from international tourism by about 8–8.5%. This was due to the fact that people thought that holidays should be traveled at least once a year, but you can reduce tourist expenses during such a trip [Dziedzic et al. 2010]. The year 2009 was also very unfavorable for the aviation industry, with the exception of low-cost airlines, which in 2009 served more passengers than in 2008. Tourism turned out to be a very sensitive area in the face of the crisis, as a result of which, some of the countries introduced special support instruments for this sector. The Polish economy was also affected by the crisis: despite the maintenance of GDP growth, unemployment increased and the situation of public finances deteriorated considerably. In addition, in 2009 the exchange rate relations of PLN to the EUR and the USD were relatively unstable.

The crisis affected the tourism economy, tourist demand decreased by 4.3%, the share of the tourist economy in GDP fell from 5.9% to 5.3% (a decrease from PLN 75 billion to PLN 70 billion). The share of tourism in exports decreased slightly: from 5.6% in 2008 to 5.2% in 2009, however the absolute values of tourist exports (expenses of foreigners in Poland) practically remained unchanged: PLN 28.1 billion in 2008 and PLN 27.8 billion in 2009 [Dziedzic et al. 2010].

The indicators in most segments of tourist activity deteriorated: in 2009, the number of domestic trips (by 12%) and foreign Poles decreased (by 21.7%). The decrease in the frequency of foreign trips was influenced, among others, by decrease in business trips related to business savings. The crisis significantly increased the spending of Poles during foreign trips than during domestic ones. In addition, the decline in tourist arrivals to Poland in 2009 was more pronounced than in Europe, which was influenced by reducing the number of arrivals after Poland’s accession to the Schengen Agreement. The number of people using the accommodation base and the number of passengers at Polish airports also decreased.

Positive trends recorded in 2009 include a slight decrease in foreigners’ expenses in Poland, an increase in charter traffic and an increase in the hotel base. In addition, the support of the tourism industry through financial resources under the European Union multi-annual financial perspective 2007–2013 was one of the factors undermining the negative effects of the crisis at the level of the tourism economy. The mitigation of the consequences of the recession was also carried out by measures to define the impact of the economic crisis on the tourism industry as part of the Inter ministerial Team for Coordination of Government Tasks set out in ‘Directions for tourism development until 2015’ support for entrepreneurs (legal changes, easier access to credit, liberalization conditions for running a business) and promotional activities of Poland implemented by the Polish Tourist Organization.

THE DEVELOPMENT OF TOURISM ECONOMY IN EUROPE

In 2010–2018, the tourism economy in Europe was a mature economy that developed dynamically after the Second World War, especially in countries such as France, Spain, Great Britain and Portugal (Figure 3). It was estimated that the tourist industry in Europe generated 3.8% of GDP, and if we take into account the tourism economy and adding together with the multiplier effect it was 8.8%, and together with the induced effect it is 10%. Comparing this with the results of the tourist satellite account for Poland, where the tourism economy accounts for 6% of GDP in 2018, clearly the significance of the tourism economy for the Polish economy is lower than the average for Europe.

The share of the tourism industry in creating jobs on the European market is constantly growing. It should be emphasized that tourism is an extremely labor-intensive sector. In 2008–2009, it was 3.6%, then in 2010 as a repercussions of the global economic crisis, there was a drop to 3.5%, and then a stable growth to 3.85% in 2018. The share of jobs created by tourism industry in Europe was rising after the global economic crisis from the level 3.5% in 2010 to 3.85% in 2018 (Fig. 4).
CONCLUSIONS

This article describes the sources of data in research in the area of ‘Tourism’, the results of Polish tourism in 2009 and the share of the European tourist sector in the European economy. The Polish tourist economy had a smaller share in GDP than the European. This is confirmed by data for 2018, when the tourist economy in Europe was 8% of GDP, and in Poland – 6%. The article uses data from the satellite tourism account for Poland and World Tourism and Travel Council (WTTC) data showing the multiplier effect of tourism in Europe. Data analysis addressing the two hypotheses shows that the share of tourism industry in Polish GDP was 1.25% in 2018 and the share of tourism industry in Europe in GDP was 3.6%. During the global economic crisis, the tourism sector in Poland reacted better than the average in Europe. There were no such large declines in tourist arrivals and tourist expenses in Poland as on European markets, which could have been caused by Poland’s preparations for the UEFA Euro 2012 European Football Championship and the large-scale promotion related to this event.

It should be remembered that there have been changes in borderline surveys since 2008. Poland’s accession to the Schengen zone in December 2007 caused the cancelation of the internal EU borders, and thus the Border Guard ceased to provide important data from the point of view of international tourism. The future research should not only take into account statistical data on the share of tourism sector in GDP of Poland and Europe but should provide information about what is the best value of the share of tourism in advanced economies and how to provide the best quality jobs in tourism.

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**ROZWÓJ GOSPODARKI TURYSTYCZNEJ W POLSCE NA TLE EUROPY W LATACH 2010–2018**

**STRESZCZENIE**

W artykule wskazano problem związany z oceną znaczenia turystyki w gospodarce. Opisano pierwsze inicjatywy na rzecz rozwoju rachunku satelitarnego turystyki, w latach 90. XX wieku. Celem badań to uzyskanie odpowiedzi na pytania: jaki jest udział gospodarki turystycznej w generowaniu PKB w Polsce i Europie oraz w jaki sposób polska gospodarka turystyczna reagowała na światowy kryzys gospodarczy i czy ta reakcja była zbliżona do rynków europejskich? Przyjęto następujące hipotezy: po pierwsze, udział gospodarki turystycznej w Polsce jest mniejszy niż średnia dla Europy, a po drugie, polska gospodarka turystyczna lepiej reagowała na światowy kryzys gospodarczy niż inne gospodarki europejskie. W artykule wykorzystano dane z rachunku satelitarnego turystyki dla Polski oraz dane Światowej Rady Turystyki i Podróży (WTTC) pokazujące efekt mnożnikowy turystyki w Europie. Analiza danych pokazuje, że udział gospodarki turystycznej w PKB dla Polski pod koniec drugiej dekady XXI wieku wynosił 6%, a udział gospodarki turystycznej w Europie w PKB wynosił 8%.

**Słowa kluczowe:** gospodarka turystyczna, Polska, znaczenie turystyki, kryzys ekonomiczny