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## **GENERAL GOVERNMENT EXPENDITURE ON SPORT AND RECREATION IN EUROPEAN UNION MEMBER STATES – STRUCTURE AND CHANGES**

### **WYDATKI PUBLICZNE NA SPORT I REKREACJĘ W PAŃSTWACH CZŁONKOWSKICH UNII EUROPEJSKIEJ – STRUKTURA I ZMIANY**

#### **Introduction**

Sport and recreation are a crucial components of the socio-economic development of any country<sup>1</sup>. The health benefits of physical activity and exercise have been undoubtedly proved, and virtually everyone can benefit from becoming more physically active<sup>2</sup>.

A specific nature of sports activities distinct them from other types of industry and in consequence lead to extensive government intervention by providing subsidies or exempting sports businesses from labour, competition or other legislation<sup>3</sup>. The government and governmental organizations are responsible in making sports policies, allocating grants for sports infrastructure, nurturing talents and designing specialised programmes for sports development<sup>4</sup>. The government plays a crucial role in promoting, developing and financing sport. In consequence the government needs to budget for the sports activities it finances<sup>5</sup>.

<sup>1</sup> UNESCO, *Sport for peace and development*, 2014, <http://www.unesco.org/new/en/social-and-human-sciences/themes/physical-education-and-sport/sport-for-peace-and-development/> [21.11.2019].

<sup>2</sup> D.E.R. Warburton, C.W. Nocol, S.S.D. Bredin, *Health benefits of physical activity: the evidence*, "Canadian Medical Association Journal" 2006, 174(6), pp. 801–809; D.E.R. Warburton, S.S.D. Bredin, *Reflections on Physical Activity and Health: What Should We Recommend?*, "Canadian Journal Of Cardiology" 2016, 32(4), p. 495.

<sup>3</sup> R. Pomfret, J.K. Wilson, *The Peculiar Economics of Government Policy towards Sport*, "A Journal of Policy Analysis and Reform" 2011, 18(1), p. 85.

<sup>4</sup> V. Kumar, M.C. Pujari, *Role of government in promoting sports in India: A critical evaluation*, "International Journal of Advanced Research and Development" 2017, 2(3), p. 196.

<sup>5</sup> J.J. Swart, M. Swanepoel, J. Surujlal, *A critical analysis of government spending on sport: Mass participation and school allocation*, "African Journal for Physical, Health Education, Recreation and Dance" 2014, Supplement 2:2 (October), p. 251.

The relationship between sport and the economy has roots in the first antique Olympic Games when athletes were rewarded in either goods or species<sup>6</sup>. The goal of sports economics is to study the relationship between sport and the economy<sup>7</sup>. The intersection of politics and sport is considered a main focus of contemporary sports history<sup>8</sup>. States and governments use international sports events as high-profile public forums to validate their political systems and ideological preferences, and to realize specific policy goals<sup>9</sup>. Sports industry has become the new source of national economic growth by enlarging domestic demands, offering employment positions, etc. Thus, the government should take the responsibility in developing sports industry in the country<sup>10</sup>.

The value of the global recreation market in 2018 was almost USD 1.44 trillion. By 2022, it is expected to increase to USD 1.81 trillion. The sports market, with a 34% share in the global recreation market, was the second largest segment<sup>11</sup>. According to estimates, the sports sector generates from 2 up to 5% of GDP in European Union (EU) countries<sup>12</sup>. In 2017, all 28 EU governments spent EUR 51.3 billion on sport and recreation.

## Material and research methods

The aim of the paper was to present briefly general government expenditure and assess the fluctuations and structure of general government expenditure on sport and recreation in EU member states. The adopted research period covered the years 2001–2017, due to the data availability. The data concerned various categories of public expenditure based on the Classification of the Functions of Government and came from the European Statistical Office – Eurostat.

The Classification of the Functions of Government (COFOG) was developed by the Organisation for Economic Co-operation and Development (OECD). It classifies government expenditure data from the System of National Accounts (SNA) by the purpose for which the funds are used. First-level COFOG splits expenditure data into 10 divisions of expenditures by their function, namely: general public services, defence, public order and safety, economic affairs, environmental protection, housing and community amenities, health, recreation, culture and religion, education, and social protection, while second-level COFOG further splits each first-level group into more detailed sub-groups. Recreation, culture and religion expenditure division consist of six subgroups, i.e. recreation and sports services, cultural services, broadcasting and publishing services, religious and

<sup>6</sup> W. Andreff, *Globalization of the sports economy*, "Rivista di diritto ed economia dello sport" 2008, IV(3), p. 13.

<sup>7</sup> A. Grabowski, *Znaczenie ekonomiczne sportu w Unii Europejskiej*, "Studia Ekonomiczne" 2014, 176, p. 190.

<sup>8</sup> J. Hill, *Introduction: Sport and Politics*, "Journal of Contemporary History" 2003, 38(3), p. 355.

<sup>9</sup> U. Merkel, *Sport as a Foreign Policy and Diplomatic Tool*, [in:] *Routledge Handbook of Sport and Politics*, eds. A. Bairner, J. Kelly, J.W. Lee, Routledge, New York 2016, p. 29.

<sup>10</sup> F. Wang, W. Wang, *On the Role of Government in Developing Sports Industry*, "2010 International Conference on Management and Service Science" 2010, Wuhan, p. 1–3.

<sup>11</sup> *Polski rynek sportu. Wyzwania – Wpływ Społeczno-Gospodarczy – Trendy*, Polski Instytut Ekonomiczny, Warszawa 2019, p. 8.

<sup>12</sup> MSiT, *Rachunek Satelitarny Sportu dla Polski za 2012 rok*, Raport wykonany na zlecenie i ze środków budżetowych Ministerstwa Sportu i Turystyki 2017, p. 4.

other community services, R&D recreation, culture and religion, and recreation, culture and religion n.e.c.<sup>13</sup>

The research results were presented using selected statistical, tabular and graphic methods, primarily Japanese candlestick charting.

Japanese candlestick charting is well known form of technical analysis of share prices on the stock markets<sup>14</sup>. The knowledge about the opening, closing, highest and the lowest values of the described variable in the analyzed period are required to construct Japanese candlestick chart. The main parts of each candle are the real body and two shadows. The real body reflects to the range between the opening and closing values of described variable while the lower and upper shadows represent the highs and lows of that variable in analyzed period. The candle's real body turns white, when the value in the closing period is greater than in the opening one. Otherwise the real body is black<sup>15</sup>.

## Results

Each government is responsible for providing goods and services to inhabitants, some of which are its exclusive competence, and redistributing income. Government expenditures funded primarily by taxes and social contributions are distinctly less flexible than revenues as they are less sensitive to the business cycle and reflect past and current policy decisions guaranteeing rights<sup>16</sup>.

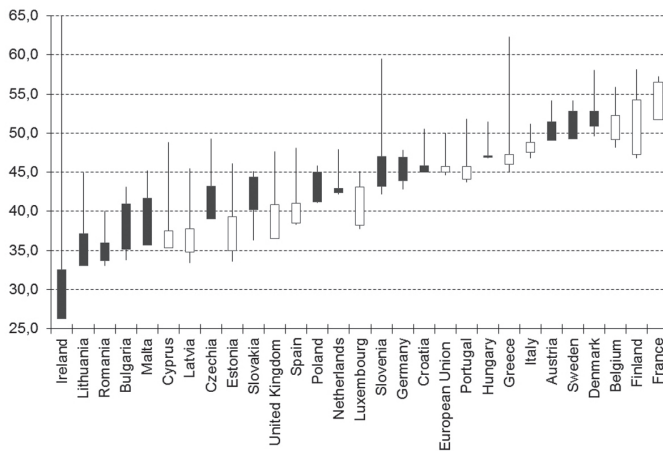


Figure 1. Total general government expenditure in European Union countries in 2001–2017 (as GDP percentage)

Source: own elaboration based on Eurostat data.

<sup>13</sup> OECD, *Government at a Glance 2019*, OECD Publishing, Paris 2019. DOI: 10.1787/8ccf5c38-en, p. 200–201.

<sup>14</sup> B.R. Marshall, M.R. Young, L.C. Rose, *Candlestick technical trading strategies: Can they create value for investors*, "Journal of Banking & Finance" 2003, 30(8), pp. 2303–2304.

<sup>15</sup> A. Gdakowicz, *The application of Japanese candlestick charting on the residential real estate market*, "Real Estate Management and Valuation" 2014, 22(4), p. 28–29.

<sup>16</sup> OECD, *Government at a Glance 2019*, op. cit., p. 68.

The purpose of Figure 1 was to picture the amount of total general government expenditure in relation to GDP. In 2001–2017 period, on average general government expenditure in EU member states amounted to almost 47% of GDP. France, Denmark, Finland, Belgium, Sweden and Denmark were the countries that spent the most (more than 50% of GDP), while Romania, Lithuania, Latvia, Ireland, Bulgaria and Estonia spent the least (less than 40% of GDP). Between 2001 and 2017 12 EU member states experienced the increase in total general government expenditure, whereas the decrease was observed in 16 countries. The largest increase occurred in Finland, Luxembourg, Estonia and the United Kingdom (more than 10%), while Ireland, Malta, Bulgaria and Lithuania experienced the largest decrease in total public spending in whole analysed period. The economic crisis caused the substantial changes of public spending level in relation to GDP in EU member states, the most visible in Ireland.

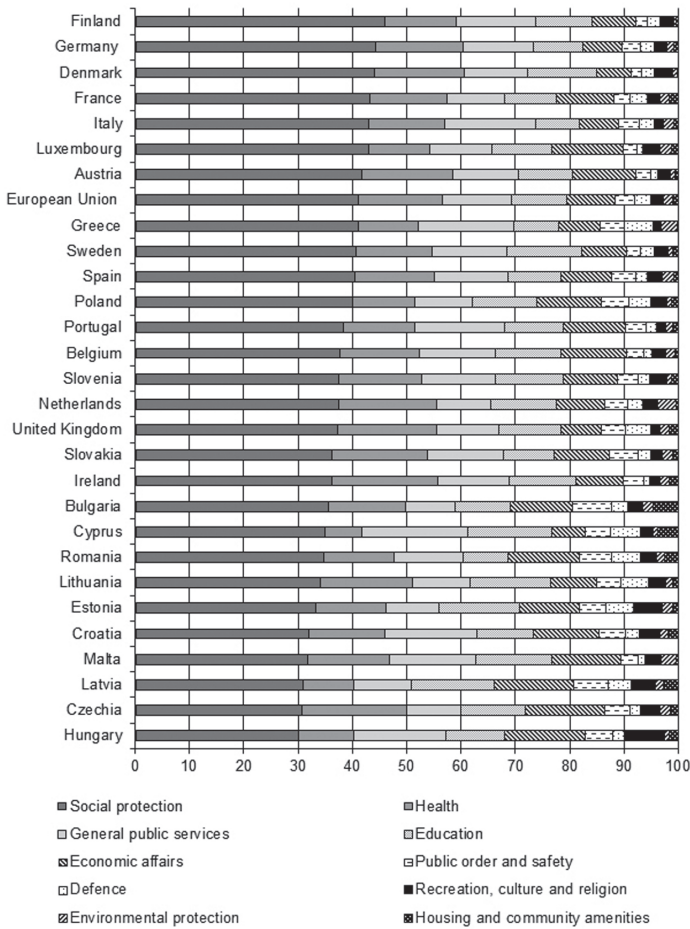
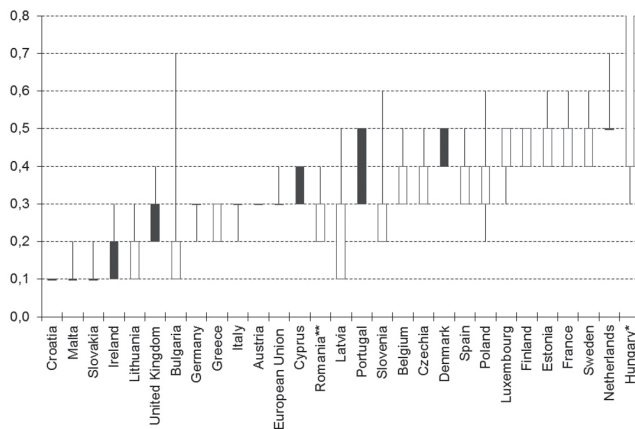


Figure 2. Structure of general government expenditure in European Union countries in 2017  
 Source: own elaboration based on Eurostat data.

The aim of government expenditures is to serve a wide range of purposes, i.e. providing health care, education and justice services to the population, and maintaining public order and safety. Analysis of expenditures by function can show government’s priorities and challenges, as well as track their evolution over time. Changes in the structure of expenditures can be a consequence of strictly political decisions, as well as socio-economic trends, such as demographic changes, business cycles and implementing international agreements<sup>17</sup>.

On average in 2017 in EU member states, the largest part (41,1%, equaled to 18,8% of GDP) of general government resources were targeted at social protection, which include mainly old age, disability and sickness pensions and social benefits. Finland, Germany, Denmark, France and Italy spent the largest share of their resources on social protection, while Hungary, Czechia, Latvia, Malta and Croatia spent the least. The second largest spending category in EU countries was health care (15,3%, equaled to 7,0% of GDP). Ireland, Czechia, the United Kingdom spend almost one fifth of their general government resources on health, while Cyprus, Latvia and Hungary spent less than 10%. The next expenditure categories in the EU in 2017 (according government money spent) were general public services accounted for 12,7%, education (10,2%) and economic affairs (8,9%).

A state of health that is inextricably linked to the level of physical condition is a growing concern in EU countries. Nevertheless, few resources were devoted recreation, culture and religion spending category in 2017, i.e. 2,3% (1,1% of GDP). It is worth mentioning that only about one third of above mentioned numbers represented the amount devoted to sport and recreation. Only on housing and environment EU member states spent less in 2017 on average.



\*the maximum value for Hungary was 1.2% of GDP

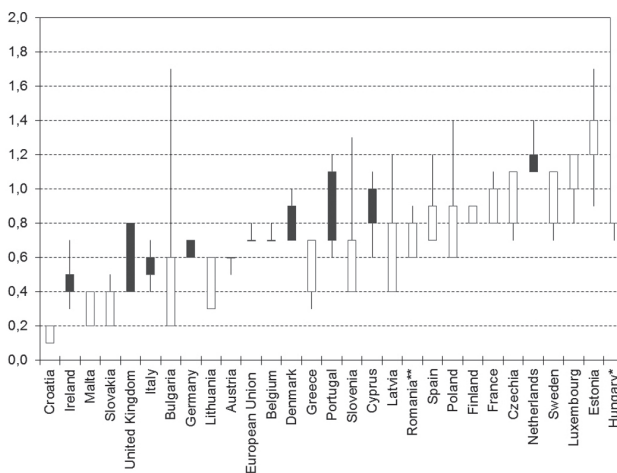
\*\*data for Romania available for 2004–2017 period

Figure 3. General government expenditure on sport and recreation in European Union countries in 2001–2017 (as GDP percentage)

Source: own elaboration based on Eurostat data.

<sup>17</sup> OECD, *Government at a Glance 2019*, op. cit., p. 70.

Figure 3 presents general government spending on sport and recreation in EU countries in 2001–2017 period in relation to GDP percentage. On average 0,4% of GDP was spent on that expenditure group in analysed period. The highest average level of general government expenditure on sport and recreation was observed in Netherlands, France, Hungary, Sweden, Finland and Denmark (0,5% of GDP), while Croatia and Malta spent only 0,1% of GDP on that spending category. In the whole analysed period the decrease in sport and recreation expenditure was observed only in five EU member states, primarily in Ireland, Portugal and the United Kingdom, while Hungary, Latvia, Bulgaria and Lithuania doubled or more the spending on sport and recreation in relation to GDP.



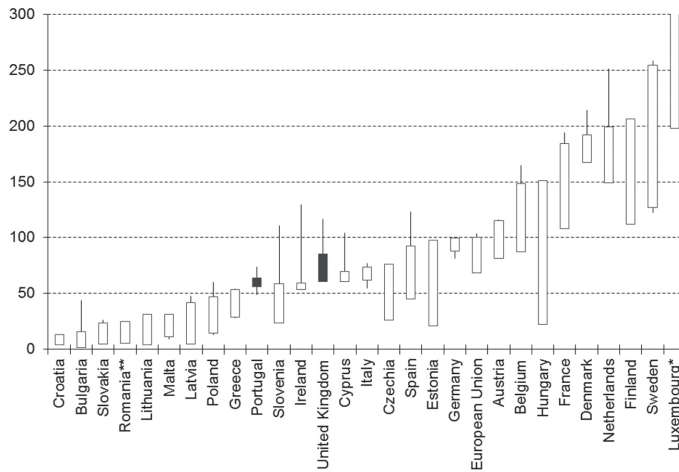
\*the maximum value for Hungary was 2.5% of total general government expenditure

\*\*data for Romania available for 2004–2017 period

Figure 4. General government expenditure on sport and recreation in European Union countries in 2001–2017 (in relation to total general government expenditure)

Source: own elaboration based on Eurostat data.

Data from Figure 4 shows general government expenditure on sport and recreation as a total spending percentage and are strongly correlated to ones presented in Figure 3. The ratio of government sport and recreation expenditure to total spending varied widely across EU member states. Netherlands, Estonia and Luxembourg spent on sport and recreation more than 1% of total general government expenditure, while Croatia and Malta less than 0,4%. In the analysed period Hungary, Bulgaria, Latvia, Lithuania, Slovakia, Malta and Croatia at least doubled the amount of sport and recreation expenditure in relations to total spending. Nevertheless, eight member states, primarily the United Kingdom, Portugal and Denmark experienced a substantial decrease of general government resources spending on sport and recreation (as total spending percentage).



\*the maximum value for Luxembourg was EUR 493 per capita

\*\*data for Romania available for 2004–2017 period

Figure 5. General government expenditure on sport and recreation in European Union countries in 2001–2017 (in EUR per capita)

Source: own elaboration based on Eurostat data.

The amount spent by each EU government on sport and recreation can be put into country population size perspective. Figure 5 pictured the differences between EU member states in sport and recreation spending in EUR per inhabitant. In 2001–2017 period sport and recreation government expenditure per inhabitant was above EUR 150 in six EU member states, namely Luxembourg, Netherlands, Sweden, Denmark, France and Finland. In contrast, the lowest sport and recreation expenditure per head was recorded in Croatia and Bulgaria (less than EUR 10), followed by Lithuania, Malta, Slovakia and Romania (less than EUR 20). Bulgarian, Latvian, Lithuanian, Hungarian and Slovakian governments increased the amount of spending on sport and recreation five or more times in the analysed period. The United Kingdom and Portugal were the only two EU countries which experienced the decrease in sport and recreation expenditure in 2001–2017 period.

## Conclusions

The presented study on changes of general government expenditure on sport and recreation in relation to GDP, total spending and in EUR per capita in EU member states in 2001–2017 period led to the following conclusions.

1. The study confirmed that EU governments allocated a small portion of their financial resources on sport and recreation, i.e. 2,3% of total expenditure (1,1% of GDP).
2. On average, in the analysed period general government expenditure on sport and recreation has remained stable in relation to GDP and as a percentage of total spending

in the EU. However, those ratios varied across EU member states, i.e. Netherlands spent the most, while Croatia and Malta the least. The largest increase of sport and recreation expenditure was recorded in Hungary, Bulgaria and Latvia, while the most substantial decrease was observed in case of the United Kingdom and Portugal.

3. The most visible differences between EU countries were observed in case of sport and recreation spending per capita. Luxembourg, Netherlands spent on average more than EUR 200 per inhabitant, while Croatia and Bulgaria less than EUR 10.

In the paper we showed that Japanese candlestick charting improves research clarity. The study is comparative and should be treated as a contribution to future research.

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## Streszczenie

Celem artykułu było krótkie przedstawienie wydatków sektora instytucji rządowych i samorządowych oraz ocena fluktuacji i struktury wydatków sektora instytucji rządowych i samorządowych na sport i rekreację w krajach członkowskich Unii Europejskiej (UE). Przyjęty okres badawczy obejmował lata 2001–2017 – ze względu na dostępność. Dane dotyczące kategorii wydatków publicznych opartych na Klasyfikacji wydatków sektora instytucji rządowych i samorządowych według funkcji (COFOG) pochodziły z Europejskiego Urzędu Statystycznego – Eurostatu. Wyniki badań zostały przedstawione przy użyciu wybranych metod statystycznych i graficznych, przede wszystkim wykresów świecowych (świec japońskich). Badanie wykazało, że rządy UE przeznaczyły niewielką część środków finansowych na sport i rekreację. W analizowanym okresie wydatki sektora instytucji rządowych i samorządowych na sport i rekreację utrzymywały się na stałym poziomie w stosunku do PKB i jako odsetek wydatków ogółem w UE. Jednakże wskaźniki te były zróżnicowane w poszczególnych państwach członkowskich UE, tj. najwięcej wydawała Holandia, a Chorwacja i Malta najmniej. Największy wzrost wydatków na sport i rekreację odnotowano na Węgrzech, w Bułgarii oraz na Łotwie, a najbardziej znaczący spadek zauważono w Wielkiej Brytanii i Portugalii. Najbardziej widoczne różnice między państwami członkowskimi UE zaobserwowano w przypadku wydatków na sport i rekreację *per capita*. Luksemburg i Holandia wydawały przeciętnie ponad 200 euro na mieszkańca, podczas gdy Chorwacja i Bułgaria mniej niż 10 euro.

**Słowa kluczowe:** wydatki publiczne, wydatki na sport i rekreację, ekonomia sportu, metoda świec japońskich, Unia Europejska

## Abstract

The aim of the paper was to present briefly general government expenditure and assess the fluctuations and structure of general government expenditure on sport and recreation in European Union (EU) member states. The adopted research period covered the years 2001–2017 – due to the data availability. The data concerned various categories of public expenditure based on the Classification of the Functions of Government and came from the European Statistical Office – Eurostat. The research results were presented using selected statistical, tabular and graphic methods, primarily Japanese candlestick charting. The study showed that EU governments allocated a small portion of their financial resources on sport and recreation. On average, in the analysed period general government expenditure on sport and recreation has remained stable in relation to GDP and as a percentage of total spending in the EU. However, those ratios varied across EU member states, i.e. Netherlands spent the most, while Croatia and Malta the least. The largest increase of sport and recreation expenditure was recorded in Hungary, Bulgaria and Latvia, while the most substantial decrease was observed in case of the United Kingdom and Portugal. The most visible differences between EU member states were observed in case of sport and recreation spending per capita. Luxembourg, Netherlands spent more than EUR 200 per inhabitant, while Croatia and Bulgaria less than EUR 10.

**Keywords:** general government expenditure, expenditure on sport and recreation, sports economics, Japanese candlestick charting, European Union

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