

# CRUCIAL DIFFERENCES BETWEEN PRESENT SERVICE SECTOR STRUCTURES OF RUSSIA AND POLAND: CHANGES AND CONTRIBUTION TO THE ECONOMY

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**ABSTRACT.** During the period of planned economies in Russia and Poland, services were underestimated as a sector of economic activity. To some degree, this continues to be the case. In spite of the existence of market economies in Central and Eastern Europe for more than 25 years, Russia and Poland should be categorized differently in terms of economic and social development. Based on D. Bell's and his followers' (M. Castells, A. Toffler, J. Rifkin, P. Drucker) theory of post-industrial society and post-industrial economy, Poland can be classified as a post-industrial country, while Russia is still an industrial country in many aspects. This point of view is based on global statistics and cross-country comparisons. The following statistical data has been used as a source for this research: share of services in GDP by country, contribution (value added) of seven main types of services to the respective GDP of Russia, Poland and other selected countries, value added and governmental expenditures per capita of primary services in aforementioned economies. The main differences between the Russian and Polish service sectors are indicated. The cases of Russia and Poland are presented here to highlight the key common features of Central and Eastern European countries' tertiary sectors.

**KEY WORDS:** services, tertiary sector, intangible production, Central and Eastern Europe, Poland, Russia

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## INTRODUCTION:

There are many ways of defining services as forms of economic activity. It is therefore necessary to set a comprehensive term to describe non-material production. The most popular and significant terms are «services», «tertiary sector of economy», «intangible production», and «non-material production» (Achkasova 2013; Savlov 2018). According to the World Bank methodology, services as an economic activity include, but are not limited to: value added in wholesale and retail trade (including hotels and restaurants), transport, education, health care, and real estate services (The World Bank 2019). If we are looking for a more scientific and methodological definition of services, Cambridge Dictionary applies a system approach and defines services, or service sector, as a business that provides something for people but does not produce goods (Cambridge Dictionary 2019). The Great Russian Encyclopedia defines the service sector as a group of economic activities that provide services to economic actors. The service sector consists of the following economic activities: culture, education, health care, and household services. Often the financial sector is included in the service sector under the heading of financial services, which include tax, budget, monetary, credit, banking and non-banking activities, retirement and insurance systems, and public trading on the stock market. The service sector consists of tertiary economic sector and

quaternary economic sector. The quaternary economic sector includes more advanced service economic activities such as IT, education and scientific research (R&D).

However, the term «tertiary economic sector» is basic and widely used to describe all activities in the service sector (The Great Russian Encyclopedia, Electronical edition 2019). In the twentieth century, primary, secondary and tertiary sectors served as a basis for identifying three distinct stages of civilizational development: pre-industrial, industrial and post-industrial. These stages were delineated in works by A. Fisher, C. Clark, J. Fourastié (Fisher 1939; Clark 1940; Fourastié 1949).

The term «service sector» was widely applied in Soviet geographical science. Obviously, the concept of a «service sector» came to Soviet geographers from foreign scientific papers and was interpreted literally (Savlov 2018). As a result, many service activities were excluded. Services were perceived as supporting activities for industry, and only simple services were included in the sector: cleaning, personal services, retail trade, etc. Soviet geographers and their descendants – Russian geographers – considered geography of services as a part of social geography, more specifically, as a part of geography of population (Aleksiev, Kovalev and Tkachenko 1991; Sivickij 1998; Savlov 2018).

In Russian economic geography (also known as human geography), the first scientific references to the service sector date back to the 1960s (Savlov 2018). For the first time, the sphere of services became the subject of research

in the papers of E. Povitchannaya, which studied the issue of services for the population in cities of the Left Bank of Ukraine (Povitchannaja 1964). The fundamental issues such as theory and research methods in geography of services were noted in the research works of Soviet human geographers S.A. Kovalev and V.V. Pokshishevskij (Kovalev 1966, 1973; Pokshishevskij 1972). Later, in Russian science, geographical research of service sector has been developed by N.V. Zubarevich, V.I. Kruzhalin, A.Y. Aleksandrova, A.P. Gorkin, M.E. Savlov and others (Zubarevich 2013; Kruzhalin 2011; Aleksandrova 2016; Gorkin 2007; Savlov 2013, 2016, 2018).

Over time, recognition and comprehension of services had changed, and the term «tertiary sector» reached Russian geographical science, along with the awareness of an emerging post-industrial society and economy. The shift in perception became more apparent after the market economy had replaced the planned economy, and services became the real driver of the Russian economic system. For example, according to the World Bank, the share of services in Russian GDP in 1991 was 36,7% and it increased to 48,7% in 1992.

As a required remark in this article, the definition of «Eastern Europe» has been taken from the «Standard Country or Area Codes for Statistical Use» by the United Nations and later, it was applied for cross-country comparisons. According to the «Standard Country or Area Codes for Statistical Use» by the United Nations, Eastern Europe consists of 10 countries – Belarus, Bulgaria, Czech Republic, Hungary, Poland, Republic of Moldova, Romania, Russia, Slovakia and Ukraine. The presented article employs the term «Eastern Europe» as something opposed to the designated «Western Europe» and it has the summarizing definition that includes Central and Eastern Europe (CEE).

The development of geography of services as an independent scientific direction in human geography has many common features in Russia and Poland. The same clear underestimation of geography of services as an independent and significant direction of geographical research, as well as services as a crucial economic activity, took place in all formerly socialistic countries, including Poland. As was the case in the USSR, the earliest works in Poland regarding geography of services as an independent geographical direction date back to the 1970s. (Polarczyk 1971; Werwicki 1998; Dominiak 2018). Polish geographers assigned the research of services to the field of settlement research (Dominiak 2018). Perhaps due to this, even 50 years later, there are still many deficiencies in the theory, practice and methodology of geography of services. Polish geographers consider the current state of geography of services to stem from a lack of interest in the subject on the part of primary stakeholders in economics and politics. In Polish science, services as a subject of scientific research has been explored by K. Polarczyk, E. Jakubowicz, A. Werwicki, J. Dominiak and others (Polarczyk 1971; Jakubowicz 1993; Werwicki 1998; Dominiak 2018). The increasing popularity of geographical research of services followed post-industrialisation, or the diminishing share of manufacturing in the world economy in favour of services in the 1970s, connected with the process of tertiarisation (Dominiak and Rachwał 2016).

The economy of Poland after the Second World War, as with the other economies of Central and Eastern Europe, was based on huge industrial plants. As a result, in the 1980's, the share of services in GDP and the share of employment in services were much lower than in Western European countries (Dominiak and Rachwał 2016). For example, according to UNCTAD STAT, the share of services

in Polish GDP was 34.0% in 1989 and reached 51.4% in 1992. The current level of service sector development in Poland is a direct consequence of the previous period of socialism and planned economy, and the present socio-economic policy for a more dynamic development of Polish tertiary sector (Dominiak and Hauke 2015).

In foreign scientific research and papers, especially those from Western Europe and the US, the understanding of services as an important part of economy and independent subject of research (economics, social sciences, geography) began with the works of D. Bell (Bell 2004) and his followers: M. Castells, A. Toffler, J. Rifkin, P. Drucker (Castells 2000; Toffler 1980; Rifkin 2011; Drucker 1993, 2002). Now, especially in developed countries, geography of services has the basic role in geographical science – to more faithfully and deeply describe and understand the world, and thus obtain more interesting and useful knowledge (Chojnicki 1991).

## MATERIAL AND METHODS

One of the general characteristics of services contribution to the economy is a share of services, value added in a country's GDP. The role of economic sectors can be evaluated in terms of different indicators, basically, in terms of employment and value added. Value added as an indicator better reflects the changes in the economic role of a sector (Dominiak and Rachwał 2016). Otherwise, value added of services as a share of GDP is changeable and it depends on the statistical sources. Taking into account only the general dates of GDP production by main sectors (value added of agriculture, including forestry and fishing; industry, including construction; services) Russia and Poland, as well as the other Central and Eastern European countries have not yet reached the most developed countries' level: Western European Countries, the USA and Canada. Is this an advantage or disadvantage of economic and social development of Eastern European countries? National governments and sciences (economics, sociology, geography) can't give a definite answer to this challenging question. On the one hand, there are ample arguments to be made for the point that countries should keep industries on their national territories and support reindustrialization. On the other hand, some researchers believe that building sustainable economic and social growth depends on «tertiarisation». The term «tertiarisation» means not only an increase in the significance of services in the economy, but also the penetration of service economic activity into the agricultural and industrial sectors (Dominiak and Rachwał 2016). For example, the share of services in German and Japanese GDPs is lower than in other developed countries, but it does not truly mean that services are undeveloped in Germany and Japan (Bolotov and Savlov 2016). This is the case when both industry and services are equally developed. According to the World Bank, services accounted for 56.6% of Russian GDP and 56.3% of Polish GDP in 2016. According to UNCTAD STAT, services accounted for 62.8% and 63.6 % of Russian and Polish GDPs respectively in 2016. In both databases, the shares of services in Russian and Polish GDPs are close and less than the average share in the World GDP (65.1% – The World Bank; 67.5% – UNCTAD STAT in 2016).

Understanding the key features of Russian and Polish tertiary sectors is based on study of cross-country comparisons. Indicators of Russia and Poland were matched with the indicators of the following country groups: the other 8 Eastern European countries, the world's top 10 economies by GDP (the USA, China, Japan, Germany, the United Kingdom, India, France, Brazil,

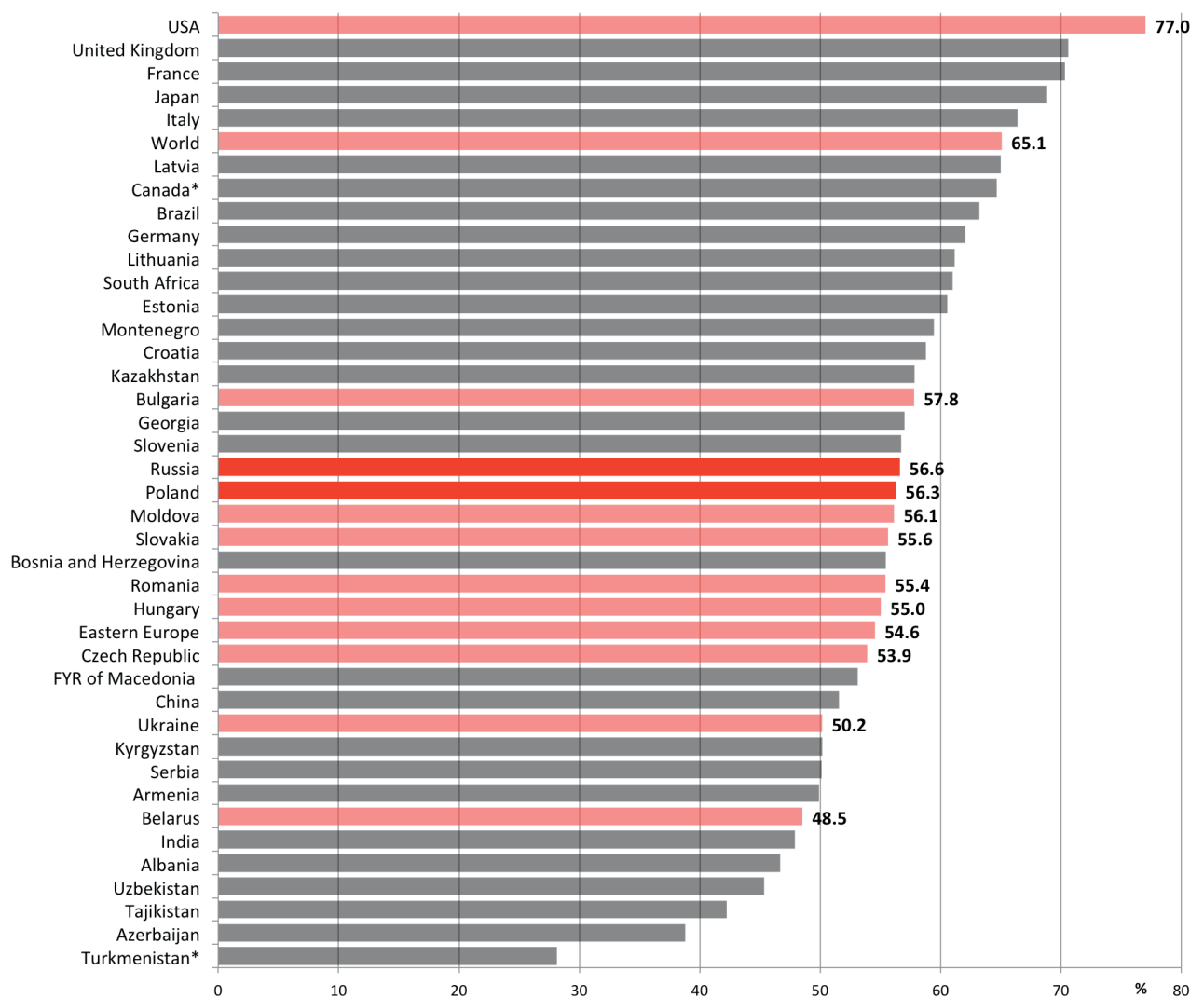


Fig. 1. Services, value added (% of GDP), 2016

\*latest available data

Source: The World Bank

Italy, Canada), BRICS, the former USSR republics, Albania and the former republics of Yugoslavia (Fig. 1). A rather average contribution of services to the economy is not the only key feature of Russian and Polish economies. It is common among all Eastern European countries and other post-socialistic economies, including even the German economy. For instance, according to the World Bank, the tertiary sector (services) accounted for 77.0% of the US economy, 70.6% in the United Kingdom, and 70.3% in France in 2016. Besides, Poland could be named one of the most developed Central and Eastern European countries. In addition, in 2018 FTSE Russell (provider of stock market indices) admitted Poland as a country with a developed financial market. A developed Polish financial market is a good point for Poland to be a sustainable post-industrial country. However, in the Central and Eastern European countries and former Soviet republics, services seldom form more than 60% of GDP, therefore Poland and Russia are not exceptions. Only in the three Baltic countries – Latvia, Lithuania and Estonia, do services supply more than 60% of their GDPs.

The challenge of mismatched structures of economies could be solved through the world statistical source, which has the value added of all kinds of economic activity by all countries – a database like the World Bank, OECD, Eurostat, etc. Unfortunately, this source does not yet exist. In this case, the author decided to make an

attempt to collect the necessary statistics and to create the comparable estimation structures for the Russian and Polish service sectors. The collection of statistics is based on world sources, which contain data by different types of services. The database was compiled using the World Bank, OECD, UNCTAD STAT, Rosstat, Stockholm International Peace Research Institute (SIPRI) and World Travel & Tourism Council (WTTC). According to the available world statistics sources, the estimation structures of Russian and Polish tertiary sectors include the following services as economic activities: health care; education; research & development (R&D); wholesale, retail trade, restaurants and hotels; tourism; military services; transport, storage and communications.

Comparable formation and estimation of tertiary sectors of Russia and Poland are based on the following indexes (indicators) – value added and governmental or total expenditures. Contribution of three groups of service activities: (wholesale, retail trade, restaurants, hotels); (transport, storage and communications) and tourism were evaluated as a value added, other services were evaluated as governmental expenditures except R&D. The World Bank provides only total expenditures on R&D by countries.

Besides the structure and shares of each service's contribution to GDP, the presented research is considering the indexes (indicators) per capita as crucial insights. Indicators per capita (expenditure or value added) are more

representative in cross-country comparisons (Savlov, 2013, 2016). Cross-country comparisons are illustrated through the total or governmental expenditures and value added by 7 main types of services taken per capita.

The latest available dates by groups of services have been compiled in this research and cover the years from 2014 to 2017. The value added of three groups of services (wholesale, retail trade, restaurants, and hotels; transport, storage, and communications; tourism) and current expenditures on health care, education, military services, and R&D were provided by the World Bank, World Travel & Tourism Council (WTTC) and UNCTAD STAT and calculated per capita.

## RESULTS AND DISCUSSION

### The role of services in the national accounts of Russia and Poland

The structures of national accounts of Russia and Poland include different groups of economic activities. As a result, Russian and Polish structures of economy, and tertiary sector in particular, are mismatched in case of using only national statistical sources (Fig. 2, Fig. 3).

Poland as a part of the European Union uses the Statistical Classification of Economic Activities in the European Community (NACE) as the industry standard classification system to statistically describe the Polish economy. Defining the service sector as all economic activities excluding primary sector (agriculture, forestry, fishing, mining and quarrying) and secondary sector (manufacturing; electricity, gas, steam and air conditioning supply, water supply, sewage, waste management and remediation activities, construction), we can identify the following tertiary sector's economic activities:

- wholesale and retail trade; repair of motor vehicles and motorcycles
- transportation and storage
- accommodation and food service activities

- information and communication
- financial and insurance activities
- real estate activities
- professional, scientific and technical activities
- administrative and support service activities
- public administration and defence; compulsory social security
- education
- human health and social work activities
- arts, entertainment and recreation
- other service activities.

Secondary sector, or industrial sector, and tertiary sector, or services, include economic activities based on the nature of this activity. The tertiary sector is heterogeneous, though at the same time, the services have a common nature (Dominiak and Rachwał 2016).

The same heterogeneity of the service sector is a feature of the tertiary sector of Russia and other countries (Savlov 2018). Estimation of the Russian service sector is based on national accounts by the Federal State Statistics Service of Russian Federation. The internal structure of the Russian tertiary sector is presented by all economic activities aside from agriculture, hunting, forestry, fishing and mining as a primary sector and manufacturing, production and distribution of electricity, gas and water, and construction as a secondary sector (Fig. 3).

The structure of global services has changed significantly from 2005 to 2015 (Fig. 4, Fig. 5). The first conclusion we can make from this analysis is that wholesale, retail trade, restaurants and hotels comprise the largest share of Russian and Polish service sectors. D. Bell identified three types of services accompanied by the level of social development. The pre-industrial society is characterized by the predominance of «simple» services; the industrial society by services for business; the post-industrial society by knowledge-based (advanced) services (Bell 2004; Dominiak and Hauke 2015). «Simple» services still play the main role in the tertiary sectors of Poland and Russia. The same group of service activities comprises the

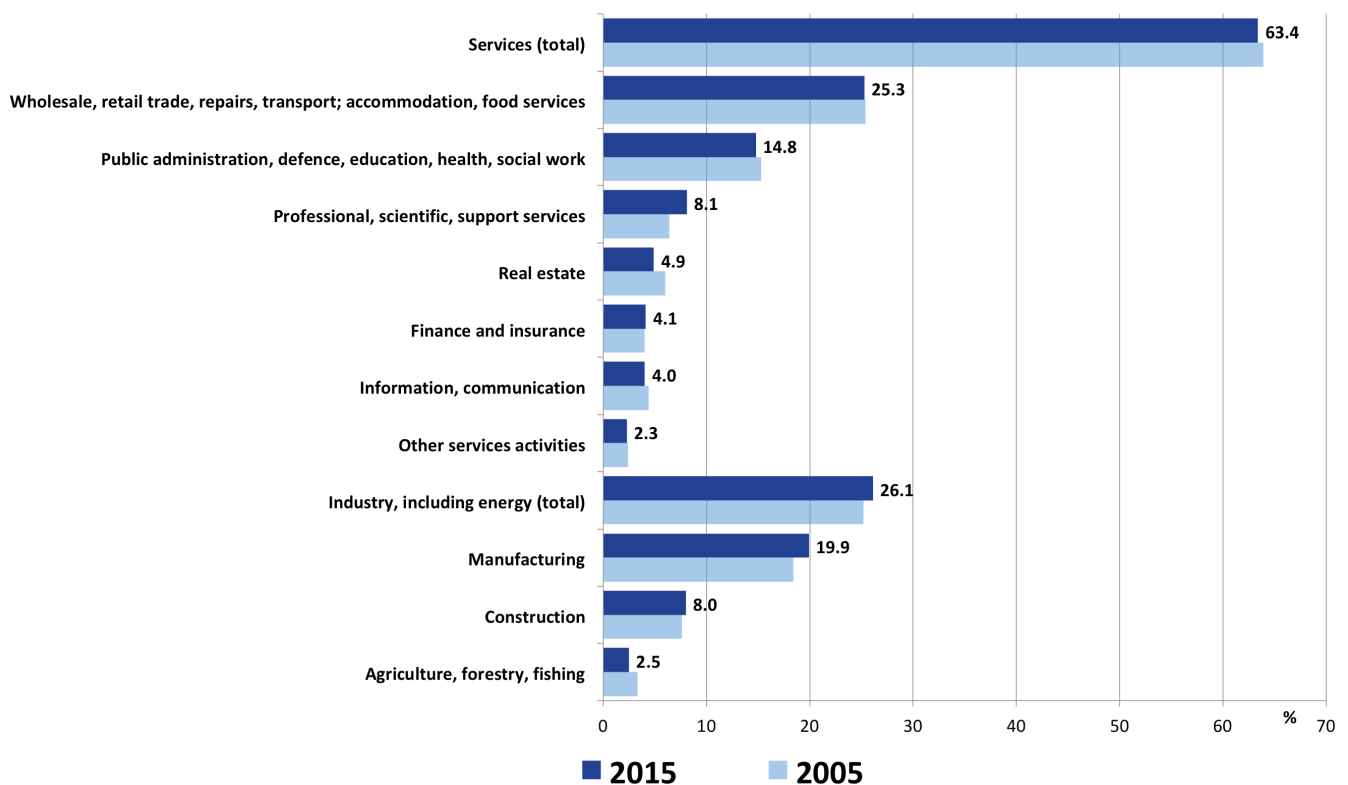


Fig. 2. Gross domestic product of Poland: value added by kinds of economic activity (%) in 2005 and 2015

Source: OECD

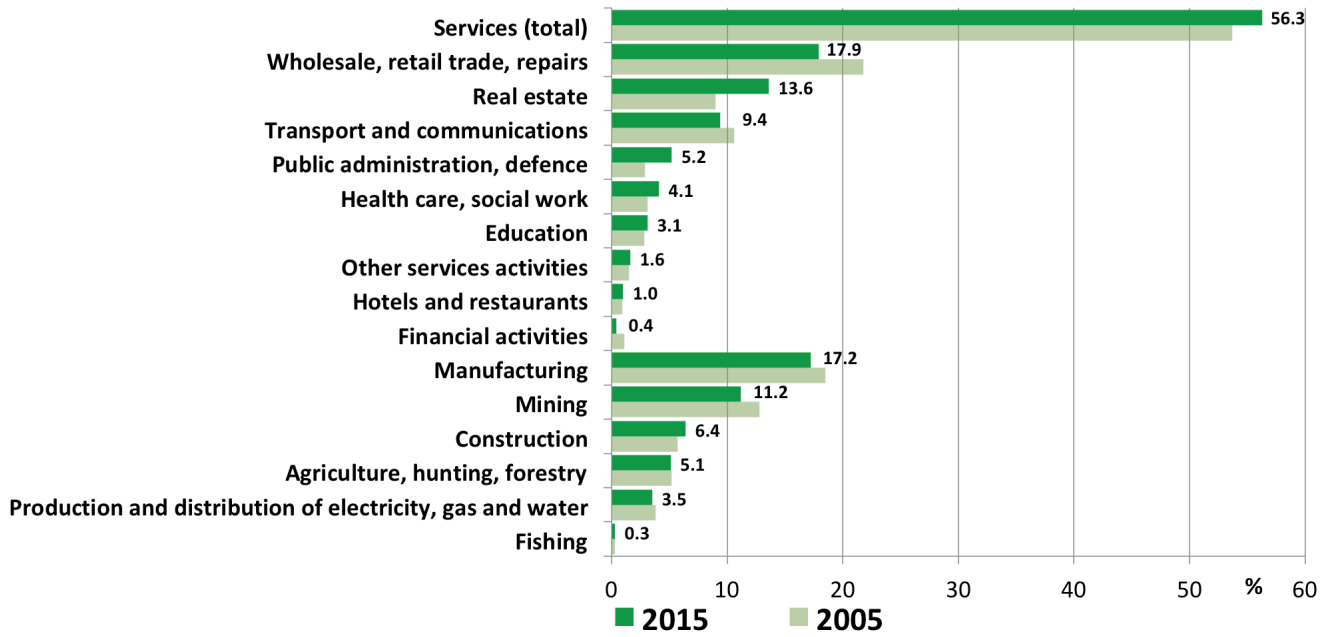


Fig. 3. Gross domestic product of Russia: value added by kinds of economic activity (%) in 2005 and 2015

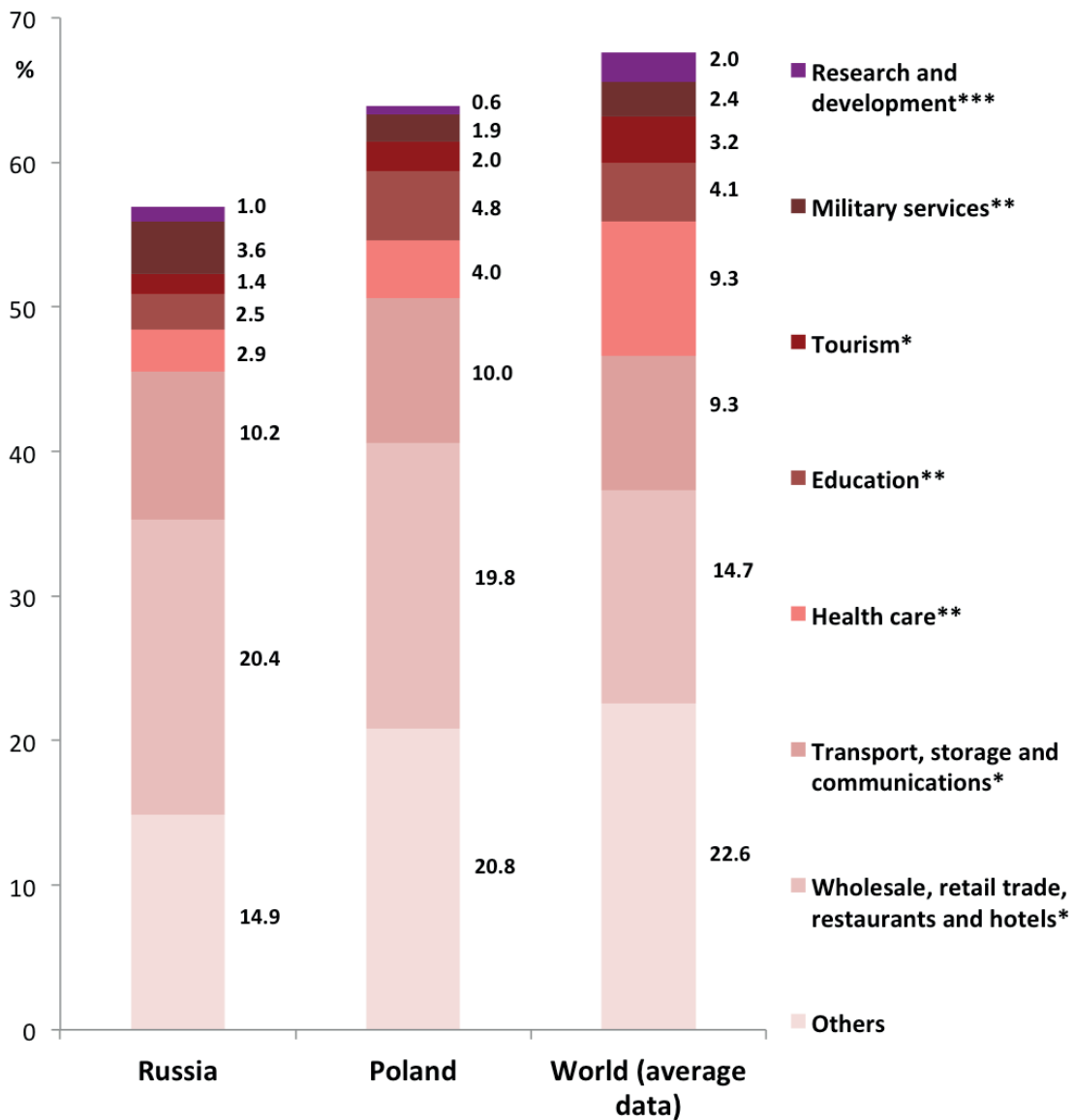


Fig. 4. Services by kinds of economic activity, % of Polish and Russian GDPs in 2005

\*value added

\*\*government expenditure

\*\*\*total expenditure

Source: The World Bank, WTTC, UNCTAD STAT

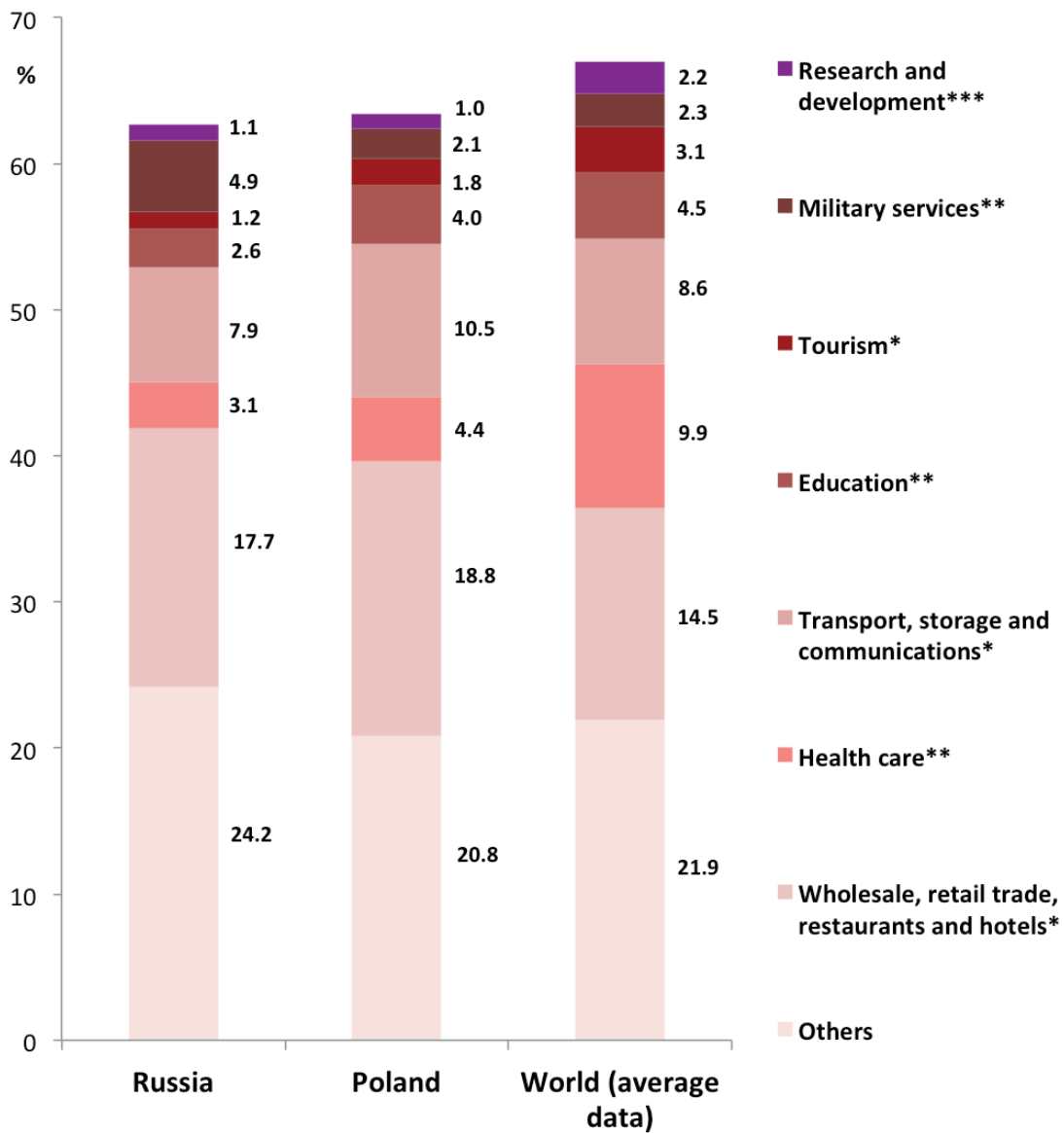


Fig. 5. Services by kinds of economic activity, % of Polish and Russian GDPs in 2015

\*value added

\*\*government expenditure

\*\*\*total expenditure

Source: The World Bank, WTTC, UNCTAD STAT

biggest part of global GDP. At the same time, there is a lack of knowledge-based services in both countries (Fig. 5). The second feature of both Russian and Polish economies is the lower shares of R&D in Russian and Polish GDPs compared with the global average and with developed countries such as the USA, Japan, the UK, France and others. The third key feature is a rather average share of health care and education, which are the main social, human-oriented services in the Russian and Polish economies compared with the world average. The fourth feature is that the contribution of tourism to Russian and Polish GDPs is too small in comparison with the world average. The last but not least – military services share in the Russian service sector is bigger than in Poland and the world average, as well as in many developed countries. In addition, the World Bank and Stockholm International Peace Research Institute (SIPRI) define military services (expenditure) as all current and capital expenditures on the armed forces, including peacekeeping forces, defense ministries and other government agencies engaged in defense projects, as well as paramilitary forces.

**Crucial similarities and differences between present state of services as an economic activity in Russia and Poland**

According to the conducted research, Central and Eastern European countries have not yet reached the level of global economic leaders in terms of service sector development. For example, according to the World Bank, in 2015, current health care expenditure per capita in the USA was \$9503.00, in Germany – \$5331.70, in Canada – \$4659.20, while meanwhile in Eastern Europe (average data) – \$1411.30. Another example – governmental expenditure per capita on education (The World Bank 2014): the USA spent \$2729.10, Germany – \$2322.20, the United Kingdom – \$2317.60, while the average governmental spending on education among 10 Eastern European countries was only \$904.50. The strongest differences between «West» and «East» are revealed by matching the total expenditure per capita on R&D. According to the World Bank, the US expenditure per capita on R&D was \$1577.00, German was \$1375.80, Japanese – \$1337.00, while Eastern Europe’s – only \$234.80 in 2015. According to the World Travel &



Tourism Council (WTTC) data, even if we only analyze tourism as an economic activity, the contribution (value added) of it per capita in Croatia achieved \$2760.90, in Italy – \$2162.80, in Montenegro – \$2065.90 and only \$486.50 in Eastern European countries in 2017.

According to the indicators of the service sector, the most developed economies among Central and Eastern European countries are Czech Republic, Hungary, and Slovakia. For instance, in 2015, current health care expenditure per capita in Czech Republic was \$2446.00, in Slovakia - \$2032.90, in Hungary – \$1892.10, and on the contrary, Poland spent \$1688.00 per capita and Russia – only \$1376.10 per capita. In 2014, the governmental expenditure on education per capita reached \$1299.00 in Czech Republic, \$1257.70 in Poland, \$1223.80 in Slovakia, \$1182.30 in Hungary, and in contrast, only \$977.20 in Russia. Analyzing total research and development expenditure per capita, the highest-ranking Eastern European country is Czech Republic (\$652.20) followed by Hungary (\$360.20) and Slovakia (\$347.90). Russia and Poland spent just \$280.00 and \$266.80 per capita on R&D respectively. Otherwise, Russia and Poland hold the top positions among Eastern European economies by military expenditure per capita. In 2017, expenditure per capita on military services amounted to \$1088.30 in Russia and \$568.00 in Poland. Nevertheless, the military expenditure per capita in the USA was nearly twice the military expenditure per capita in Russia and accounted for \$1874.80 in 2017.

Contributions of tourism services to the Russian and Polish economies are rather insignificant. According to the World Travel & Tourism Council (WTTC), in 2017 contribution (value added) per capita of tourism to Polish GDP amounted to \$559.80 and only \$316.30 in Russian GDP. The Central and Eastern European countries with the biggest contribution of tourism to GDP per capita are Czech Republic (\$936.70), Slovakia (\$809.30) and Hungary (\$622.50).

Thus, Russia and Poland occupy middle positions in the presented rankings. As was mentioned above, Czech Republic, Slovakia and Hungary are the leaders in terms of service indicators. Some Eastern European countries are ranked at the bottom in almost all presented rankings, lower than the majority of former USSR republics and former republics of Yugoslavia. The indicators are especially low in the Republic of Moldova and Ukraine. (Tkachuk 2019) One of the main reasons for the low indicators per capita (value added, expenditure) by crucial kinds of services could be the devaluation of national currency, and economic and political crises in the Republic of Moldova and Ukraine. For instance, among all Central and Eastern European countries, the Republic of Moldova and Ukraine

are highlighted for having the lowest rates of current expenditure per capita on health care (\$514.40 and \$487.60 respectively in 2015), governmental expenditure per capita on education (\$374.50 and \$509.20 respectively in 2014), total expenditure per capita on research and development (\$18.70 and \$49.10 respectively in 2015), contribution per capita of tourism to GDP (\$54.70 and \$133.70 respectively in 2017), value added per capita of wholesale, retail trade, restaurants and hotels (\$944.90 and \$1414.90 respectively in 2016), value added per capita of transport, storage and communications (\$695.30 and \$1008.80 respectively in 2016).

## CONCLUSIONS

Central and Eastern European countries have the unique experience of economic transformations – from planned economy to market economy, from industrialization to tertiarisation, and to new emerging reindustrialization. Both Russia and Poland still have developed industries. The secondary (industrial) sector developed in the 20th century, including manufacturing activities. As a result, the contribution of the secondary sector to Russian and Polish GDPs is still relatively high. The share of the secondary sector in Poland and Russia is still significant in the economy, unlike in Western European countries. «Traditional» (not advanced) services still hold the main share in the Polish and Russian tertiary sectors. As an assumption, there is a possibility that Russia and Poland can follow the path of development and economic experience of Germany and Japan, which managed to combine developed industries with an excellent level of provided services.

One of the main challenges that both Russia and Poland are facing is the need for an increase in government expenditures on social and basic services such as health care, education and research & development. According to present indicators, Russia and Poland are still behind the most highly developed countries and some Central and Eastern European countries. The most alarming situation in the economy and particularly in the services (especially the social services) can be seen in the Republic of Moldova and Ukraine as a consequence of political and military crises and unsustainable socio-economic development.

The insights of each service and their impacts on economic and social development of Russia, Poland and other countries or macro regions are worth studying in future research projects. In the geography of services, and in the case of Russia and Poland, the issue of unerring tertiarisation or re-industrialization is still open and controversial. ■

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