Vol. 5 No. 3, 2024
DOI: https://doi.org/10.30525/2661-5150/2024-3-2

COMPARATIVE ANALYSIS OF THE GDP STRUCTURE OF THE G7 COUNTRIES: ECONOMIC DEVELOPMENTS AND TRENDS

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Abstract. This research article will examine the gross domestic product (GDP), which is one of the most widely used indicators of national economic performance. GDP represents the total output of a national economy over a specified period, with seasonal fluctuations duly adjusted. The most comprehensive measure of GDP is also adjusted for inflation, thereby enabling the assessment of changes in output rather than changes in the prices of goods and services. The significance of this indicator can be demonstrated by the fact that GDP is frequently employed to assess the relative size of national economies. Governments, financial market participants, and business leaders are most interested in changes in GDP over time, as reflected in annual growth or decline rates, because this allows them to make assumptions and develop plans for the future. The government uses previous years' GDP figures to formulate policies on interest rates, taxes, and trade policy. The study of GDP in the G7 countries is particularly important and relevant, as these countries represent the central government of the whole world, have a great influence on the economy, discuss global problems and develop solutions in the shortest possible time. The object of the study is the 7 members of the G7, namely: Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States, while the subject is the basic indicators of the national economy of each individual country, analysed in the dynamics over the past 10 years.

Keywords: GDP, structure, G7 states, annual GDP growth rate, GDP per capita, comparative analysis.

JEL Classification: F02, F55, F67

The G7 Group is an informal forum that brings together heads of government and ministers from the world's largest industrialised and most powerful economies. Over the years, the annual G7 summits have become a platform for setting the direction of multilateral discourse and policy responses to global challenges. When discussing the G7 today, it means a summit that brings together the leaders of the European Union and the following countries: Canada, France, Germany, Italy, Japan, the United Kingdom, the United States, and the United States of America. The G7 can set the global agenda, as the decisions made by these major economic powers have enormous influence. When the G7 leaders agree on the direction to take on a particular policy issue, this decision is shared with many other international organisations and institutions. Thus, although decisions made within the G7 are not legally binding, they have a strong political impact. The G7 group's activities are based on 16 fundamental pillars, which are summarised in Figure 1 below.

The goal of the G7 is to coordinate macroeconomic policies and, in particular, exchange rate policies between the countries concerned. The member countries of the group are the most powerful in the world, and they are the states that determine the balance of power at the international level and the global economic order. The influence of these great powers at the global level is manifested in the significant weight they have in the world economy:
1. 12% of the world's population.
2. 39.18% of global GDP.
3. 50% of world production.
4. 65% of military expenditures.

In addition, the decisions taken by the G7 are based on five fundamental principles. These are as follows:
– Fiscal discipline, which means balancing the budget and reducing taxes;
– financial liberalisation based on fixed rates in the capital market;
– commercial liberalisation – abolition of customs protection, full opening of savings to direct investment, and privatisation of all enterprises;

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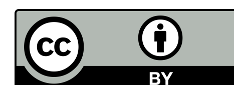

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Figure 1. Key fundamental pillars of the G7 Group

Source: prepared by the author

– regulation – elimination of all obstacles to competition;
– protection of intellectual property rights of multinational companies.

Despite the fact that the G7 is not an international organisation, it has a significant influence in all spheres, especially political and economic, as its summits not only set the global agenda but also discuss major global problems and develop ways to solve them as soon as possible. GDP, along with national income, inflation, price levels and unemployment, represents one of the most significant variables in macroeconomics. Consequently, when approaching this indicator, it is essential to have a comprehensive understanding of the underlying macroeconomic principles that inform its calculation. In turn, macroeconomics is a branch of economics that studies how the national economy behaves, its components: markets, businesses, consumers, and governments, as well as how macroeconomic aggregates change (Pelinescu, 2015). As already mentioned, macroeconomics studies phenomena at the level of the entire economy through the prism of the indicators mentioned above. Thus, macroeconomics focuses on the efficiency of the economy through poverty reduction, social equity and sustainable growth, which in turn are only possible with effective monetary and fiscal policies. In order to achieve this efficiency, it is necessary to analyse the GDP variable in the dynamics (Acemoglu, D. et al., 2008). With regard to the approach to the term and concept of GDP, there are 3 calculation methods that form the basis of its approach, with components of each formula differing. They include:

1. Production method:

GDP = GNP – C

Where: GDP – gross domestic product, CI – intermediate consumption.

2. GDP by income method:

GDP=A+Net indirect taxes+S+R+D+P-Subsidies (+Dividends)

Where: A – depreciation, S – salaries, R – rent, D – interest, P – profit

3. GDP by expenditure method:

GDP=C+Ibr+G+Nx

Where C – personal consumption expenditure, Ibr – Gross investment (gross capital formation), G – final government consumption, Nx – net export

From the author's point of view, GDP is an internal indicator that reflects the state of the national economy, with the aim of comparing the dynamics of economic development both over time and between economies of different sizes. To better understand the components of GDP and the relationships between them, refer to Figure 2. In order to measure GDP growth in terms of physical volume, GDP at current prices is estimated at the prices of the previous year, and the changes in volume calculated in this way are superimposed on the level of the base year, a process called a chain series.

The GDP figure is a valuable tool for any type of national economy, as it can be used in a number of ways:
– The government and public institutions can use GDP to understand how policies have affected the economy and implement policies that will lead to higher productivity;
– national organisations seeking to enter new markets can use GDP to assess which markets are likely to be the healthiest;
– an investor interested in emerging markets can use GDP to understand which countries are growing at the fastest rate and therefore can provide the highest return on investment (ROI).

It is evident that the domestic indicator GDP plays a pivotal role in the national economy. It enables the

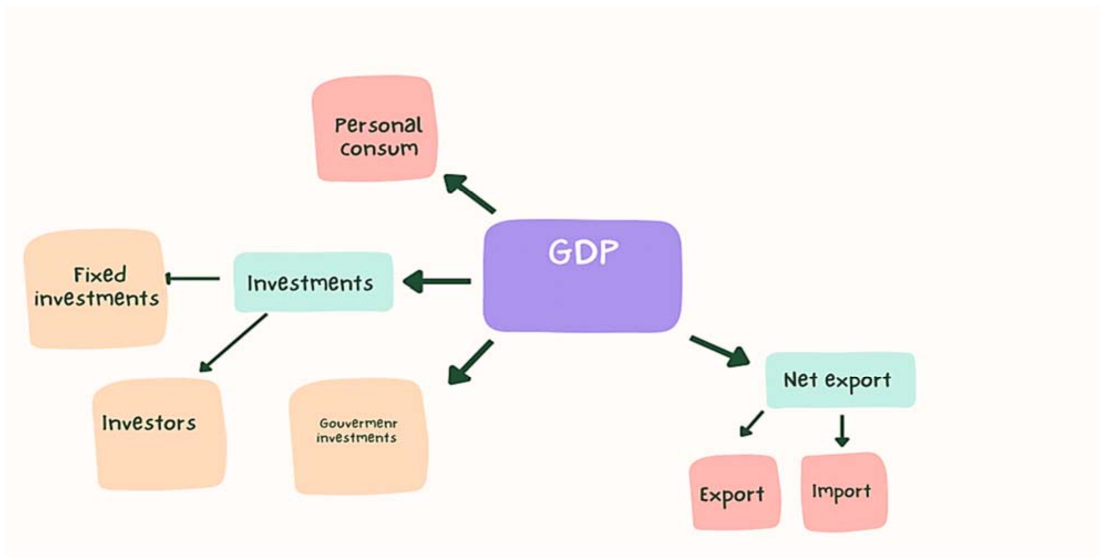

Figure 2. Schematic presentation of GDP components
Source: prepared by the author

government and central banks to ascertain whether the economy is undergoing a period of decline or expansion, and whether it requires stimulation or restraint. Furthermore, it allows for the identification of potential economic threats, such as a recession or inflationary pressures, that may emerge in the future.

Based on some comparative analysis conducted between the G7 member countries, namely: Canada, France, Germany, Italy, Japan, the United Kingdom, and the United States of America, a list of the main factors affecting GDP can be compiled. These are of 2 types:
– Negative influence;
– positive influence.

For each type of impact, a number of factors can be identified. For the negative impact, the following elements have been identified:

1. The COVID-19 pandemic.

The COVID-19 pandemic has had a serious negative impact not only on the economies of the G7 countries but also on the global economy. During 2020-2021, the total global gross domestic product (GDP) fell by as much as 3.4%. The pandemic has affected the most important components of GDP, such as exports, with many countries' borders closed to imports and tourists. The labour sector was also affected, with employees of many businesses and factories laid off. However, the economies of the G7 countries quickly recovered from the initial shock, reaching positive growth rates in 2022.

2. Natural disasters.

In the case of the G7 countries, natural disasters can have both negative and positive impacts, depending on the country and the number of disasters. Natural disasters destroy not only public infrastructure, buildings, equipment, but also components such as human capital, and thus damage their productive capacity and reduce productivity.

3. Rising unemployment and inflation.

Economic growth, unemployment, inflation, and the current account balance are the most important variables that show the performance of an economy. The quality of the relationship between these variables is extremely important when applying economic policy. Policies that affect these 2 indicators can lead to changes in labour supply and demand and thus reduce the number of aggregate jobs in the sector that is the target of profitability growth. A decline in employment will lead to a decrease in the marginal productivity of capital. Comparing the annual GDP per capita growth rates of the United States and Italy, one can observe that by 2023, this indicator will remain relatively stable in the United States, unlike Italy, where it will fluctuate, reaching several or even negative values. Below, a graph of the growth rates in the US and Italy is shown in the Figure 3.

In turn, the following elements had a positive impact and determined GDP growth:

1. Investment in infrastructure.

The available empirical evidence indicates that infrastructure spending has a stimulatory effect on gross domestic product (GDP), which is greater than that of other types of spending. However, the effectiveness of infrastructure spending as a stimulus is not without caveats. It is also crucial to consider the manner in which the government disburses funds for infrastructure development. When the federal government allocates funds for infrastructure spending, two key considerations emerge.

– Compensation for infrastructure costs at the state and local levels;

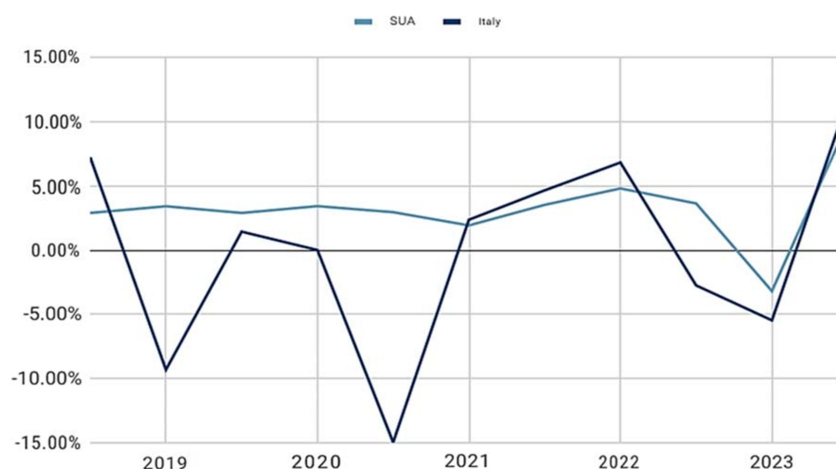

Figure 3. Presentation of annual GDP per capita growth rates for 2019-2023 in the G7 countries: USA and Italy

Source: prepared by the author

– the time required to complete infrastructure investments.

Infrastructure, in turn, stimulates GDP growth by creating jobs related to the planning and implementation of various projects. Infrastructure projects often last from a few months to several years, which means that jobs will be sustained. These workers then spend their earnings locally and help develop the economy. Moreover, after the projects are completed, citizens can use transport and utilities more efficiently to increase the productivity of their workers (Soava, et al., 2020).

2. Support of national production.

This element contributes enormously to GDP, exports, jobs and livelihoods, as economists say it drives any technical change in the economic system, which has proven to be a major source of economic growth.

Support for national business will contribute to the growth of national production, exports and human capital productivity, and national business, in turn, is one of the 4 factors of production, which is closely related to the other three, namely land, capital, human resources.

3. Increase in exports.

Exports are one of the main elements of the GDP calculation using the final use method, which directly affects not only GDP but also such indicators as the exchange rate, inflation and interest rates. A positive export balance contributes to a country's economic growth. Increased exports mean high levels of production in a country's factories and industrial facilities, and more people employed in those facilities to keep them running. When a company exports a large number of goods, it also means an influx of funds into the country, which stimulates consumer spending and promotes economic growth (Zhang, et al., 2021).

Thus, this paper has established the degree of importance of studying the GDP structure of the G7 countries by analysing national economic indicators: GDP value, annual GDP growth rate, GDP per capita, annual GDP growth rate per capita. In turn, both GDP and the G7 countries are of enormous importance in the global economy, directly influencing a number of elements such as interest rate policy, taxes and trade policy. As an informal international organisation, the G7 countries not only set the global agenda at their summits, but also discuss the world's major problems and develop ways to solve them as soon as possible.

Based on the results of the comparative analysis, the main factors of both negative and positive impact on the GDP of the G7 member countries were identified. These include the 2020 COVID-19 pandemic, natural disasters, and rising unemployment and inflation, which have a negative impact, while the factors with a positive impact are further investments through budget allocations for infrastructure development, support for domestic producers, and stimulating export growth.

Thus, after an in-depth study, a list of recommendations can be drawn up that can be applied within the 7 states:

– Promoting economic growth through innovation.

Innovation and start-ups drive economic growth. They are the best job creators, starting with brilliant ideas, taking risks and creating value for the American consumer. Particularly in the current economic downturn, it is important that national policies that foster innovation are in place to ensure that there is sufficient prosperity for the next generation.

– Increase in trade.

Promoting a level playing field in trade is beneficial for the G7 member states. There is an opportunity to modernise trade agreements, including the

Free Trade Agreement, so that they are mutually beneficial to all parties. The United States would benefit from having its markets remain open while new or modified trade agreements are negotiated.

– Infrastructure improvement.

Underinvestment in infrastructure hinders private sector productivity, long-term growth and job creation. There is an argument for a significant increase in public spending on maintenance, repair and new infrastructure projects, as part of deficit and debt reduction, which could have a positive impact on GDP growth and GDP per capita (World Economic Forum).

Therefore, the author can endorse the fact that a comparative analysis of the GDP structure of the G7 countries helped to understand the importance of these countries in the global economy, their crucial contribution to solving major problems in all sectors of the world. The analysis of the GDP of these countries helped to identify the main factors of influence and to identify the weaknesses of the states.

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Received on: 10th of September, 2024
Accepted on: 27th of October, 2024
Published on: 15th of November, 2024