
Security of Public Finances under Economic Crisis and Pandemic: Theoretical-Empirical Aspects

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Abstract:

Purpose: Determining the interdependence between the economic prosperity and the development of financial balance and debt in the general government sector in the 21st century (in the global, regional (EU) and Poland's dimensions). Assessment of the impact of the COVID-19 pandemic on public finances.

Methodology: Analysis of contemporary concepts and legal system solutions relating to the subjective and objective aspects of public finance and their impact on the economic and financial security of the State. Evaluation of the security of public finance based on the balance and debt formation of the general government institutions, with particular emphasis on periods of economic prosperity downturns and crises. Descriptive correlation of selected indicators of 2000-2001, obtained from the database of the International Monetary Fund, Eurostat, Polish Ministry of Finance, and the Main Statistical Office.

Conclusions: In relation to the situation in the 21st century, the fundamental paradigms relating to the interdependence between the cyclical course of the economic prosperity and the situation of public finance have been confirmed. Significant differences were also observed, with respect to individual regions of the world and individual countries. In economic and budgetary policy, too little importance was given to budget balance and public debt in the medium and long term.

Practical implications: In the fiscal policy and financial security policy, it is necessary to keep appropriate proportions between the realization of current social needs and shaping the conditions of economic and social development in the medium and long term. The composition of revenue and expenses and public incomes and expenditures should take much more into account the consequences of excessive budget deficits and the burden of public debt, which are intergenerational in nature. The management of the risk of breaching the stability and security of general government finance should become an obligatory subject of current and strategic economic and fiscal policy.

Originality/Value: The study is theoretical and empirical. The study clarifies the today's prevailing legal concepts and interpretations relating to the essence and nature of economic security and the public finance. Descriptive and statistical analyses of macroeconomic determinants of the public finance balance and the public debt in the years 2000-2021 enabled to show the correctness in their formation under conditions of economic collapse and crises, also in relation to the COVID-19 pandemic.

Keywords: Public finance, general government sector, financial security, public finance deficit, public debt.

JEL codes: G32, H300, H62, H63, H68.

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1. Introduction

The realization of numerous economic functions, ascribed to the State today, is carried out under conditions of high variability of determinants and numerous threats to the undisturbed functioning of society and economy. This makes the issue of economic security and its financial dimension a subject of particular interest, both in the theoretical and practical dimension. The economic history, including the experience of economic crises of recent decades, clearly shows the importance of the financial sphere and rational financial management of the general government sector for the efficient functioning of the State and its socio-economic development.

2. Economic and Financial Security

The economic system, which we most often refer to the economic activity of the State and the State's entities, covers the real and financial sphere. In the real sphere the processes of production, distribution, exchange, investment and consumption of goods and services are taking place to meet the needs of society. Its main entities are non-financial enterprises and households. The financial sphere, in turn, includes the financial system and the economy of financial entities of the real sphere. The main task of the financial system is to co-create purchasing power (money in various forms) and to ensure its undisturbed flow between participants in the economic process. The nature of the economic system which dominates today, in which, apart from the market, the State plays an important role, requires the separation of both private (market) and public finances.

The efficiency and effectiveness of the economy and its finances largely depends on their undisturbed functioning. These issues are an important subject of the theory, policy, and practice of economic and financial security. This dimension of security became the subject of special interest in the 1970s. Although we still encounter many different definitions and interpretations of their essence, they do not prevent us from better understanding the importance of security in shaping the conditions for meeting collective and individual needs.

Economic security is one of the most important planes of the State security and is complex in its nature. Taking the object to which economic security refers as the criterion, international and national (States) security is distinguished. International security refers to a region that includes two or more countries, an integration group, or it may be global (world) in its nature. The subject of the State's economic security, in turn, are the elements of the economy's structure, with particular attention paid to those areas of the economy that are sensitive from the point of view of its stable functioning and development. Among other things, industrial, raw materials, energy, and food security is distinguished as the types of economic security. Financial security is becoming increasingly important.

The functioning of national economies is determined by internal and external factors. Internal circumstances are primarily natural resources, demographic and material production potential, and the efficiency of their usage. Not without significance is also the structure of the economy and the type and effectiveness of economic policy.

The development of international economic relations in the sphere of production, trade, capital flow or financial services has significantly influenced the increase in importance of external circumstances. In fact, the theses that "... contemporary economic realities and recent economic history clearly indicate that the economic security of a State depends primarily on the economic processes taking place in its external international environment" are clearly formulated. (Redo and Siemiatkowski, 2017).

The evolution of international economic relations towards their strong internationalization, has triggered another, third wave of globalization (Ziewiec, 2012). Its contemporary character has become a premise for a modified approach to economic security and the formulation of its new foundations and pillars. It is based on participation in international economic structures, the sustainability of public finance and relatively low public debt, and its three pillars are the international competitiveness of the economy, the economy's capacity for development and progress and economic sovereignty (Redo and Siemiatkowski, 2015).

Real economic processes take place in close connection with financial phenomena and processes. The numerous functions fulfilled by money and finance makes them both a reflection of activity in the real sphere and, on an increasing scale, autonomous and even primitive phenomena that determine the basic economic decisions. They concern what to produce, how to produce and how to distribute the wealth produced. Today's economic security managers are more afraid of the threats associated with financial crises than of economic crises in industry, agriculture, trade, etc. Hence the significant increase in financial security.

Financial security, besides energy security, is the most important component of economic security. In extreme cases, it is even recognized that the use of the concept of economic and financial security may be substitutable. It is difficult to agree completely with such a view, which is due to the slightly different subjective and objective scope, which the "finance" and "economy" categories refer to. The multidimensionality of its essence makes it difficult to formulate a universal definition of financial security. More valuable is the efforts made in this direction (Raczkowski, 2014). Raczkowski states that "... financial security is a process of constant reduction and elimination of monetary risk in order to secure capital adequacy that will be adjusted to the risk profile and preferences of a given subject or entity".

The multidimensionality of financial security, both in its theoretical, political, and practical dimensions, is reflected in its diversification considering various aspects of the use of money and the complexity of functioning financial systems. Redo and Siemiątkowski distinguish internal and external financial security of the State (Redo and Siemiątkowski, 2017). The above-mentioned authors treat as an internal security “... all legal regulations and self-regulations aimed at ensuring financial stability and protecting the interests of market participants who use financial brokers, as well as all institutions responsible for monitoring compliance with such regulations and self-regulations”. External security, in turn, means “... such a level of development of the economy and its international economic relations which ensure the financial stability of basic entities (households and enterprises), the financial system and the State institutions in the face of potential turbulences on the global market resulting in the outflow of external financing streams and the increase of debt handling costs (Redo and Siemiątkowski, 2017)”.

Considering the forms of ownership of cash (finances) should be distinguished:

- security of private (market) finances,
- security of public finance.

Private and public finances are managed according to slightly different rules and with using different mechanisms and instruments.

Considering the specificity of the structure of the market finance subsystem, we should point out to:

- security of financial institutions,
- security of financial markets,
- security of transactions and financial instruments,
- security of the principles of financial system functioning.

In turn, the sectoral structure of the public finance system makes it possible to distinguish:

- security of the government finance sector,
- security of the local government finance sector,
- security of the social security sector,

The economic system is most often referred to the national economy and includes economic entities and relations between them (Kowalik, 2005). The nature of these entities and the threats related to their functioning point out the validity of distinguishing further types of financial security:

- financial security of households,

- financial security of financial and non-financial enterprises,
- financial security of the State.

The financial security of the State is considered in a broad or narrow approach.

Security in the largo sense of the word, considers the occurrence of threats and the risk of disruptions in all the basic segments of the economic system. It is therefore a resultant of the financial situation in public and private (market) finance. Such an approach to the financial security of the State should be considered, both from a theoretical and practical point of view, as not entirely justified. The public authority does not possess and manage private entities and therefore does not bear direct responsibility for the financial situation of private sector entities.

Therefore, it should be assumed that the financial security of the State refers mainly to public finances, which we define as the resources of money at the disposal of public authorities (all levels) and operations carried out in connection with their acquisition and disposal. The general definition of public finances only reflects their essence and shows limited usefulness in their practical management. The process of public finance diversification, which has been taking place since the beginning of the twentieth century, preceded by the diversification of the political system and administration, has led to the formation of a system of public finance with an extensive subjective, objective and functional structure in democratic States. They are reflected in national and international legal regulations.

3. Subjective and Objective Aspects of Public Finance

The entity structure of public finance as an economic sector, for the European Union (EU) and European Economic Area (EEA) countries, was recommended in the Regulation of the European Parliament and the Council of the EU on the European system of national and regional accounts (ESA, 2010). According to the above-mentioned Ordinance: “The sector of general government institutions consists of institutional units which are non-market producers whose output is intended for individual and collective consumption, which such institutions are financed by compulsory payments by units belonging to other sectors, and institutional units whose primary activity is the redistribution of national income and wealth” (ESA, 2010).

The sector of these institutions includes above all:

- general government sector entities, which administer and finance non-market activities consisting in the provision of non-market goods and services intended to meet the needs of society;

- an enterprise type institution or institutions belonging to the general government if their output is predominantly non-marketable and controlled by a general government entity;

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- non-profit institutions with legal personality which are non-market producers and are controlled by entities of the general government sector;
 - autonomous pension-disability funds managed by the entities of the general government sector.

At the same time, four sub-sectors were distinguished within the general government sector (ESA 2010):

- central government institutions (excluding social security funds);
- regional general government institutions (excluding social security funds);
- local government institutions at the local community level (excluding social security funds);
- social security funds.

The broadly and in general identified the general government sector and the pension-disability fund sector corresponds in essence to the public finance sector. This enables comparisons to be made between the public finances of the countries belonging to the EU (European Economic Area) and the settlements of the Member States with the Community authorities. It also facilitates the management of the security of public finance in the EU, for example by the fact of relating prudential criteria to the same categories of public finances and the formulation of opinions and recommendations by EU bodies (European Parliament, European Council, Council of the European Union, European Commission).

The implementation of the findings of the European Parliament and the Council of the EU does not eliminate the use of national systems of national accounts, which take into account the specificity of public finance of individual countries and may show some differences in the scope and structure of the public finance sector compared to the recommendations of EU bodies. In the Public Finance Act in force in Poland (Act, 2009), the subjective scope of the public finance sector includes:

- public authorities, including government administration bodies, State
- control bodies and law protection bodies and courts and tribunals;
- local government entities and their associations and metropolitan associations;
- public finance sector entities operating in the form of: budget entities, local government budget companies, executive agencies, budget economy institutions, State special purpose funds;
- Social Security Institution and Agricultural Social Security Fund and funds managed by these entities;
- National Health Fund; independent public health care institutions;
- public colleges and universities; Polish Academy of Sciences and the organizational entities created by the Academy;

- general government cultural institutions;
- other general government legal entities established under separate laws for the purpose of performing public tasks, excluding companies, research institutes, institutes operating within banks and commercial companies.

When analyzing public finances from the point of view of their subjective scope, one should pay attention to the location of the State Treasury. The State Treasury, which is not considered to be an entity in the public finance sector, plays an important role in economic and financial processes related to public property (Wernik, 2011). The State Treasury, equipped with legal personality, manages State's properties and is the subject of receivables and liabilities (resulting from e.g. financing the budget deficit).

The public finance sector is responsible for managing the cash resources at the disposal of public-private partnerships and their stability and security. The subject of their activity are phenomena and processes consisting in collecting and spending public funds (within the State budget, local government budget, special purpose funds, social security budget and extra-budgetary funds). In the Polish financial law, the objective approach to public finances in question was used to define their essence. It states (Act, 2009) that:

“Public finances include processes related to the collection of public funds and their allocation, in particular:

- 1) collecting public revenues and incomes;
- 2) disbursement of public funds;
- 3) financing the borrowing needs of the State budget;
- 4) incurring liabilities involving public funds;
- 5) public funds management;
- 6) public debt management;
- 7) the settlement of accounts with the European Union budget”.

4. Balance of Public Finance

There are certain principles to be observed in public finance management. One of the most important is the principle of the balance, which proclaims the need to balance budget revenues and expenditures. Issues related to the balance of public finance are the subject of both theoretical considerations, decisions taken within the framework of fiscal policy, as well as budgetary practice consisting in obtaining current revenues and income and making expenditures and outgoings.

In economics and fiscal theory several concepts of the public finance balance have been formulated, ranging from the strict balance concept to the permanent deficit theory (Kostecki, 2011).

The recommendation to follow a strict mathematical balance between public revenues and expenditure derives from the assumptions of classical English economics. In the opinion of economists representing this trend, there should be equal treatment of economic entities, regardless of their form of ownership, under market economy conditions. Therefore, the States should also respect the rule of balancing revenues and expenditure in their budgets. A possible budget deficit is only allowed in exceptional circumstances and should be financed by incurring liabilities to the public market. In economic policy and fiscal practice, maintaining a strict budget balance is facing many difficulties. Hence, concepts were developed to justify the existence of deficits and, as the well-known American economist J. M. Buchanan put it, “unbalanced” budgets.

In the concept of state interventionism, of which J.M. Keynes was the forerunner, an important role was assigned to the State as an active participant in economic processes. Regarding the balance of public finances, the thesis was accepted that striving for economic development is more important than maintaining a balanced budget. By creating conditions for economic growth, especially in a situation of stagnation and crisis, the State should focus on stimulating primary demand (investment, supply, and consumption) by increasing the public expenditures.

Primary and consequent secondary demand is expected to be an important driver of capacity utilization, production, service, and employment growth. The transition of the economy to a phase of recovery and boom will result in an increase in fiscal revenues, which will create the conditions to restore budgetary balance. Although the Keynesian theory considered the importance of the economic prosperity for the balance of public finance, the cyclical nature of the market economy was at the basis of another concept of the so-called cyclical budget.

This theory was born in the Scandinavian countries. The authors of this concept have departed from the principle of a one-year budget, in favor of referring the balance of public finance to several year long periods correlated with phases of the economic prosperity cycle. In a period of economic growth, when there are significant public revenues and relatively smaller expenditures, a budget surplus should be pursued. Its accumulation should be used to finance the public finance deficit in periods of economic prosperity collapses.

The practical application of this type of fiscal policy has encountered a number of obstacles and difficulties, which, as indicated by P.J. Gaudemet and J. Molinier, are related to the unevenness of prosperity cycles, the insufficient amount of accumulated savings to cover future budget shortfalls, and the lack of a convincing justification for making savings under conditions of failure to meet current public needs (Gademet and Molinier, 2000).

The concept closest to modern public finance balancing policy is the concept of “deadlock” or “game for development”. It allows the principle of budgetary

balance to be breached, while respecting the rules relating to the size of the deficit, the way in which it is financed and the nature of the expenditures financed by the monetary liabilities incurred by the State. Budgetary policies of this kind are recommended both by the International Monetary Fund (IMF), the World Bank (WB) and the European Union. The IMF calls for it to be respected in the remedial programs of countries that benefit from its funds, and the EU has defined its basic rules in the so-called Maastricht convergence criteria. Of the five convergence criteria, two are fiscal in nature. They specify that the annual budget deficit should not exceed 3% of GDP and the accumulated public debt should not exceed 60% of GDP.

The presented theories of the public finance balance (but also, for example, the concept of over-the-line and under-the-line operations) do not bring a clear answer to the questions which the public finance policy and the public finance balance policy creates the least risk of threats and thus increases the financial security of the State.

In theory, there may be three states that characterize the sustainability of public finances: a state of full compatibility of revenues and expenditures, a state of surplus of revenues over expenditures and a state of shortage of revenues over expenditures. While the first two situations do not pose significant problems in the management of public finances, a deficit situation, especially one that persists in the long term, may pose a threat to the stability and even financial sovereignty of the State.

The Public Finance Act in force in Poland addresses this issue as follows (Act, 2009):

- “1. The positive difference between public revenue and public expenditures, established for the accounting period, is the public finance sector surplus and the negative difference is the public finance sector deficit.
2. Public revenue and public expenditure and the public finance sector surplus or deficit shall be determined after the elimination of financial flows between entities in the sector.”

Financing of public finance deficits is usually done by incurring liabilities in various forms and with various lending entities. They are the main but not the only cause of public debt.

5. Public Debt and Its Consequences

The stability of the financial system as a determinant of the State's financial security is referred to both the market finance (private) subsystem and the public finance subsystem. About market finance, it is defined “... as a state, in which the financial system performs its functions continuously and effectively, even in the

event of unexpected and unfavorable disturbances of a significant scale. Disturbances in the operation of the financial system and disturbances in the efficiency of the provision of financial broker services adversely affect the situation of enterprises and households” (National Bank of Poland, 2020). In terms of public finances, sustainability means “...the ability of a government to keep the current level of its expenditure, tax and other related policies in the long term in such a way as not to jeopardize the solvency of the State and to meet all its financial obligations and approved expenditure” (European Commission, 2020). Thus, the “state” of the financial system is determined primarily by the balance between public revenues and expenditures, as well as the size and structure of the liabilities of the general government sector (Alińska, 2016).

Public debt is defined as the accumulated liabilities of the public finance sector. It is an important criterion for assessing the State’s financial situation both in the national and international context. To determine its essence and size, formal and legal regulations and counting methodologies are used.

There are two main categories of public debt in Polish public finance law:

- 1) the State public debt,
- 2) the public debt of the State Treasury.

The State public debt, in accordance with Article 72 of the Public Finance Act (Act, 2009), includes the liabilities of the public finance sector, by virtue of:

- 1) securities issued, based on monetary receivables;
- 2) loans acquired;
- 3) deposits received;
- 4) due and payable liabilities:
 - a) resulting from separate acts and legally binding court decisions or final administrative decisions,
 - b) recognized as undisputed by a relevant public finance sector entity being the debtor.

The State public debt is the index of the debt of the public finance sector determining the amount of liabilities incurred by individual entities of the sector on the domestic and foreign financial (including banking) market. This index takes into account the consolidation process, i.e. elimination of mutual liabilities within the sector (e.g. the value of loans granted from the State budget to local governments, loans granted to the Social Security Fund or the treasury securities held in the portfolios of public finance sector entities is not taken into account).

However, there is no legal definition of the public debt of the State Treasury. Its amount is calculated and made public by the Minister of Finance. It is assumed that the debt of the State Treasury is like the debt of the general government, reduced

by the debt of the local governments and the debt of social security funds. In 2018, it amounted to about 92% of the State public debt.

In turn, European Union law, to which all Member States are obliged to adhere, gives a fundamental role to the liabilities of the general government.

EU regulations on public debt have been regulated in numerous legal acts² In accordance with the regulation of the European Parliament and the Council of the European Union, the debt of the general government sector includes:

- debt securities:
- loans:
- cash and deposits.

It is also worth paying attention to aspects of public debt, not specified directly in legal acts. Wernik defines public debt in formal, legal and economic terms. In the first place, "... public debt is the sum of gross cash liabilities of entities in the (public finance sector or general government sector, respectively), calculated in a nominal value, outstanding at the end of the reporting period". In economic terms, public debt means the cumulative sum of "... public finance sector deficits (or the general government sector deficits), cumulated in previous years" (Wernik, 2011). The debt of the public finance sector is the State debt.

The indisputable consequence of the public debt is the necessity to handle it, consisting in the repayment of its nominal value and interest liabilities within the agreed period, according to specific rules and procedures. Debt handling always requires more money than the nominal value of the debt. The difference is the cost of the liability incurred. The source of financing the repayment should be the obtained surplus between revenues and expenditures. This means that the public finance sector entities achieved a positive balance on revenue and expenditure operations and have a financial liquidity. In the event of difficulties with the

² *The basic EU regulations relating to public debt are defined by (Strategy. 2020):*

1. *Treaty on the Functioning of the European Union (defines the level of public debt which, in addition to deficit restrictions, is the criterion on the basis of which the Commission examines compliance with budgetary discipline by the Member States).*

2. *The Protocol on the excessive deficit procedure annexed to the Treaty on European Union and the Treaty on the Functioning of the European Union (defines the debt and the base value of the public debt to GDP ratio at 60%).*

3. *Council Regulation (EC) No 479/2009 of May 25, 2009 on the application of the Protocol on the excessive deficit procedure annexed to the Treaty establishing the European Community (it defines public debt, including debt instruments).*

4. *Regulation (EU) No 549/2013 of the European Parliament and of the Council of 21 May 2013 on the European system of national and regional accounts in the European Union (ESA 2010) (defines the different categories of financial liabilities and the general government sector).*

repayment of current liabilities (redemption of Treasury Securities, repayment of loan installments, return of deposits, etc.), debt handling may be performed based on refinancing.

It consists in incurring new monetary liabilities enabling the debtor to meet its current obligations. Such a situation may cause the day-to-day debt handling to run smoothly, but the debt remains unchanged and even increases. This is a frequent phenomenon, as several countries show the ability to handle their debt on an ongoing basis, at the expense of increasing debt. Since loans are classified as incomes in public finance and funds spent on debt repayments as outgoings, refinancing causes a surplus of incomes over outgoings. These are so-called under-the-line operations. In contrast, the public revenues and expenditures are defined as over-the-line operations. Refinancing of liabilities is often referred to as “debt rollover”. This situation is possible until the lenders are ready to finance the debtors and the debtors can bear the burden of repayment of the underlying liabilities and related costs. Deterioration of the State’s economic situation usually results in a decrease in public revenue, with a simultaneous increase in expenditure (usually of a social nature). The possibility to generate additional revenues by e.g. raising taxes becomes difficult or even impossible.

Because of tightening the debt loop, the debtor State may decide to suspend or discontinue repayment of its liabilities. Such a situation occurs when there is a loss of financial liquidity or insolvency and such a situation may be medium or long-term. If the relationships with lenders are not conflicting, it becomes possible to take restructuring measures. Lenders may, for example, agree to a partial debt cancellation under the condition that the debtor State takes remedial measures. The purpose of the remedial is to improve the economic situation of the debtor and to regain its financial liquidity and the ability to repay its liabilities.

The occurrence of public debt, especially its high relation to the gross domestic product (e.g. over 60%) and the need to service it also causes many adverse consequences for the functioning of the State in the economic, financial, social and political sphere. These include primarily:

- limiting the possibilities of socio-economic development;
- an increase in inflation and a decrease in the purchasing power of money;
- increase in unemployment;
- reduction of real revenues of enterprises and households;
- social disorders,
- weakening of the international position of the debtor State,

Each of the consequences of (excessive) public debt affects, especially in the medium and long term, the financial security of the State and its economic and financial sovereignty. Their impact strength increases in the event of financial and

economic crises, which also applies to the situation in the current century and to the events happened in the recent period.

6. Global and Regional Dimension of Public Debt

Concepts relating to the balance, stability, and security of public finance, developed based on the theory of economics and finance as well as economic and fiscal policy, are subject to systematic practical verification. The real development of public revenues and expenditures, their current balance, size, and structure of public debt allows to assess the efficiency of public finance management and to formulate conclusions and conclusions about the future. The reliability of the analysis of phenomena and processes in the sphere of public finance requires considering the determinants of the phenomena being studied and their most important consequences in the global, regional and national dimensions.

The 21st century is a period of dynamically shaping processes and changes in all areas of political, social, and economic life. Over the past twenty years, the world economy has experienced both periods of relatively prosperous times and periods of economic prosperity downturn and economic and financial crises (Table 1).

Table 1. *Global and regional GDP growth rate under the slowdowns and the crises 2000-2021 (%)*

Details	2000	2001	2002	2003	2008	2009	2010	2018	2019	2020f	2021f
World	4.8	2.4	2.9	4.2	3.0	-0.1	5.4	3.5	2.8	-3.0	5.8
Advanced economies	4.1	1.6	1.7	2.1	0.2	-3.3	3.1	2.2	1.6	-6.1	4.5
Euro Zone	3.8	2.2	0.9	0.6	0.4	-4.5	2.1	1.9	1.2	-7.5	4.7
Main developed economies	3.7	1.3	1.2	1.9	-0.1	-3.6	2.8	2.0	1.6	-6.2	4.5
Other developed economies (excluding the G7 and the Euro zone)	5.9	2.1	4.0	2.8	1.8	-0.8	5.9	2.6	1.7	-4.6	4.5
European Union	3.9	2.3	1.3	1.1	0.9	-4.2	2.1	2.3	1.7	-7.1	4.8
Emerging markets and developing economies	5.8	3.6	4.6	6.9	5.7	2.8	7.4	4.5	3.7	-1.0	6.6
Emerging and developing Asia	6.5	6.1	6.7	8.3	7.3	7.6	9.7	6.3	5.5	1.1	8.5
Emerging and developing Europe	7.5	2.6	4.8	6.2	4.4	-5.7	4.4	3.2	2.1	-5.2	4.2
ASEAN-5	5.5	3.4	5.1	5.7	5.4	2.5	6.9	5.3	4.8	-0.6	7.8

Latin America and the Caribbean	3.7	0.6	0.4	2.0	4.0	-2.0	6.2	1.1	0.1	-5.2	3.4
Middle East and Central Asia	5.6	2.2	3.7	10.3	4.3	1.8	4.9	1.8	1.2	-2.8	4.0
Sub-Saharan Africa	3.9	4.8	6.4	4.9	5.8	3.9	7.1	3.3	3.1	-1.6	4.1

Note: f – forecast.

Source: in-house elaboration compiled on the basis of International Monetary Fund. 2019. *World Economic Database*,

<https://www.imf.org/external/pubs/ft/weo/2019/02/weodata/index.aspx>;

International Monetary Fund 2020. *World Economic Outlook Database April 2020*,

<https://www.imf.org/external/pubs/ft/weo/2020/01/weodata/index.aspxA>.

The slowdown in the pace of economic development was recorded in 2001-2002 and in most groups of countries and regions of the world, in the second decade of this century. According to the data by the International Monetary Fund, this concerned mainly the countries belonging to the EU (especially the euro area), and the G7 group, Latin America, and the Caribbean. It should also be pointed out that 16 countries of emerging and developing Europe were slow to develop in 2014-2016. The absolute collapse of the world economy and its crisis has taken place in 2009 and - according to reliable forecasts - in 2020.

While the global economic and financial crisis initiated in 2008 was characterized by different economic and political situation in different groups of countries and regions, it will cover the whole world in 2020, except for the countries of emerging and developing Asia (30 countries) as the region. The largest decline in GDP is expected in the countries belonging to the EU and the group of countries of advanced and developed economy, emerging, and developing Europe, and Latin America and the Caribbean. The forecasts formulated by the IMF in April 2020 are subject to verification. Their successive versions are increasingly pessimistic, which raises doubts about the possibility of quickly overcoming the COVID-19 pandemic and quickly returning to the path of dynamic economic growth in the coming years.

The development of public debt in the current century is characterized by a tendency towards its constant growth (Table 2). Public debt on a global scale in 2020 exceeded the size of the world global product. Considering the problems related to its handling, the thesis about the occurrence of a global debt crisis is justified, although its scale varies between regions and countries (Table 2).

Particular attention is paid to the level and structure of gross debt of the general government sector. Taking as the measure of the burden related to foreign and internal liabilities, the relation of this debt to GDP, the regions and States with the highest indebtedness are the countries with the highest level of socio-economic development. In 2019, this index was for the group of countries with advanced

economy - 103.1%, G7 - 117.3%, EU - 80.4%. The index was also high in Latin America and the Caribbean - 69.6%. The lowest level of public debt-to-GDP ratio was achieved in emerging and developing European countries (Albania, Belarus, Russia, Romania and Poland, among others) - 31.3%, ASEAN - 40% and highly developed countries not belonging to groups: G7 and Eurozone (e.g. Norway, Australia, Switzerland) - 41.2%.

Developing countries, including those considered to be the poorest ones, dominate the group of 155 countries with emerging and developing markets. In this group, the debt ratio was 53.3%. The relatively lower burden of liabilities in developing countries (compared to the debts of most developed countries) does not prove their lower demand for loans, greater stability, and financial security. This is mainly due to their low level of economic development, underdeveloped political and economic system, lack of efficient financial markets and limited internal savings of companies and households. These countries have low creditworthiness, which makes it difficult for them to incur liabilities, both in the international and domestic financial markets.

Table 2. *Gross debt of the general government sector by world regions, in periods of economic slowdowns and crises in 2000-2021 (% of GDP)*

Details	2000	2001	2002	2003	2008	2009	2010	2018	2019f	2020f	2021f
World											
Advanced economies	no data	69.6	70.7	72.8	77.7	90.9	97.4	102.0	103.1	103.8	104.1
Euro Zone	68.2	67.2	67.1	68.3	68.8	79.3	84.9	85.4	83.9	82.3	80.8
Main developed economies	no data	74.87	76.6	79.6	88.6	103.5	111.8	116.1	117.3	118.2	118.8
Other developed economies (excluding the G7 and the Euro zone)	35.1	33.8	34.2	35.1	32.8	35.6	35.7	41.1	41.2	41.7	42.0
European Union	60.3	59.1	59.1	60.5	62.4	73.2	79.1	81.9	80.4	78.9	77.6
Emerging markets and developing economies	47.4	48.1	51.8	49.9	33.8	38.8	37.7	50.6	53.3	55.7	57.6
Emerging and developing Asia	43.5	44.0	44.6	44.9	36.8	41.5	40.1	51.5	55.1	58.8	61.8
Emerging and developing Europe	50.6	50.2	47.7	43.8	23.7	29.2	29.4	30.8	31.3	32.1	32.4
ASEAN-5	62.0	58.2	55.3	52.4	36.3	38.2	36.4	39.9	40.0	39.8	39.7
Latin America and the Caribbean	46.2	47.6	58.1	58.3	46.1	48.9	47.5	67.8	69.6	69.2	68.8
Middle East and Central Asia	48.7	51.1	61.1	55.2	24.6	30.5	27.6	43.0	44.9	46.4	47.3

Sub-Saharan Africa	67.5	64.5	57.4	52.0	24.6	28.4	27.3	49.0	50.2	50.4	50.7
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Note: *f* – forecast.

Source: In-house study based on Table 1.

When assessing the importance of public debt for economic and financial security, it is important to determine its shape in periods of the economic prosperity downturns and crises. The first slowdown in economic development in the 21st century took place in 2001-2002. Compared to 2000, it amounted to 2 to 4 percentage points in most regions of the world. Its course and nature did not cause a significant increase in public debt and did not increase the regional differentiation. This was mainly due to the then dominant neo-liberal economic policies limiting interventions by the States and the belief in the efficiency of market mechanisms and private economic entities. In most developed countries, the trend of increasing debt continued, while emerging and developing countries sought to reduce their debt-to-GDP ratios.

Numerous economic forecasts formulated in the second half of the twenties of the 21st century included the possibility of an economic prosperity slowdown or even an economic crisis in the global and regional dimension. The outbreak of the COVID-19 coronavirus pandemic has dramatically worsened the conditions for the functioning of the global economy. In the vast majority of countries, 2020 will be a period of deep recession, covering both the real and financial spheres. The GDP projection drawn up by the International Monetary Fund (Table 1) shows the scale of the economic collapse, with negative growth rates likely to deteriorate further as the pandemic continues and worsens. At the same time, it should be assumed that the further development of the economic and financial situation will vary depending on the region and the specific conditions in individual countries.

7. Public Finance and Debt in the EU

The economic situation of the European Union as the integrating group in the years 2000-2020 was shaped in the main current of trends characteristic for the world economy, at the same time showing certain specific features. Firstly, the pace of economic growth in the EU was weaker than that of the global economy. Secondly, the EU countries felt the economic prosperity slowdowns more strongly than most other regions of the world, and the economic prosperity collapses were deeper. Thirdly, the European Union, especially the euro area, was the only group of countries that showed negative GDP indexes during the economic prosperity slowdown in 2012-2013. From the point of view of public finance and debt, the years 2008-2020 were of particular importance.

In the analyzed period, the economic situation of the EU and individual Member States was diversified (Table 3). In the last thirteen years, the annual GDP growth rate did not exceed 3%, achieving the highest increase in 2017 (2.6%). The

situation was particularly unfavorable in 2009 and 2012, and in the euro area also in 2013, when the GDP indexes turned negative. Between 2008 and 2014 there was no situation where at least one EU State did not experience recession. The particularly unfavorable situation took place during the severe recession in 2009. Poland (2.8%) was the only country among the EU members that did not experience a decline in GDP compared to 2008. In several countries, the difficult economic situation and even recession (negative GDP indexes) continued until 2014. These were mainly Greece, Italy, Croatia, Cyprus, Portugal, and Finland.

After a period of relatively favorable economic conditions, a radical deterioration of the situation occurred at the beginning of 2020. This was closely related to the emergence and development of the COVID-19 pandemic. The forecast, published by the European Commission in summer 2020, pointed out the possibility of a deep recession in 2020, expressed in negative GDP growth rates for the EU and the euro area (-8.3% and -8.7% respectively). The economies of Italy (-11.2%), Spain (-10.9%), Croatia (-10.8%), Portugal (-9.8%), Greece and Slovakia (-9.0%) were hit the hardest by the crisis. It was also clearly experienced by other Member States, with Poland (-4.6%) and Sweden (-5.3%) being the least affected ones. In the following year, 2021, a significant economic recovery was expected, although in view of the prolonged pandemic, such forecasts were subject to low probability.

Table 3. The growth rate of real GDP in the EU 2008-2021 (%)

Details	2008	2009	2010	2011	2012	2013	2014	2016	2017	2018	2019	2020f	2021f
UE-28/27	0.5	-4.3	2.2	1.8	-0.4	0.3	1.7	2.0	2.6	2.0	1.5	-8.3	5.6
Euro Zone-19	0.4	-4.5	2.1	1.7	-0.9	-0.2	1.4	1.9	2.6	1.8	1.3	-8.7	6.1
Belgium	0.4	-2.0	2.9	1.7	0.7	0.5	1.6	1.5	1.9	1.5	1.4	-8.8	6.5
Bulgaria	6.1	-3.4	0.6	2.4	0.4	0.3	1.9	3.8	3.5	3.1	3.4	-7.1	5.3
Czech Republic	2.7	-4.7	2.4	1.8	-0.8	0.0	2.3	2.5	5.2	3.2	2.3	-7.8	4.5
Denmark	-0.5	-4.9	1.9	1.3	0.2	0.9	1.6	3.2	2.0	2.4	2.3	-5.2	4.3
Germany	1.0	-5.7	4.2	3.9	0.4	0.4	2.2	2.2	2.6	1.3	0.6	-6.3	5.3
Estonia	-5.1	-14.4	2.7	7.4	3.1	1.3	3.0	3.2	5.5	4.4	5.0	-7.7	6.2
Ireland	-4.4	-5.1	1.8	0.6	0.1	1.2	8.6	2.0	9.1	8.5	5.6	-8.5	6.3
Greece	-0.3	-4.3	-5.5	-9.1	-7.3	-3.2	0.7	-0.2	1.5	1.9	1.9	-9.0	6.0
Spain	0.9	-3.8	0.2	-0.8	-3.0	-1.4	1.4	3.0	3.0	2.4	2.0	-10.9	7.1
France	0.3	-2.9	1.9	2.2	0.3	0.6	1.0	1.1	2.3	1.8	1.5	-10.6	7.6
Croatia	1.8	-7.4	-1.5	-0.3	-2.2	-0.5	-0.1	3.5	3.1	2.7	2.9	-10.8	7.5
Italy	-1.0	-5.3	1.7	0.7	-3.0	-1.8	0.0	1.3	1.7	0.9	0.3	-11.2	6.1
Cyprus	3.6	-2.0	2.0	0.4	-3.4	-6.6	-1.9	6.7	4.4	4.1	3.2	-7.7	5.3
Latvia	-3.3	-14.2	-4.5	6.3	4.1	2.3	1.9	1.8	3.8	4.3	2.2	-7.0	6.4
Lithuania	2.6	-14.8	1.5	6.0	3.8	3.6	3.5	2.6	4.2	3.6	3.9	-7.1	6.7
Luxembourg	-1.3	-4.4	4.9	2.5	-0.4	3.7	4.3	4.6	1.8	3.1	2.3	-6.2	5.4
Hungary	1.1	-6.7	0.7	1.8	-1.5	2.0	4.2	2.2	4.3	5.1	4.9	-7.0	6.0
Malta	3.8	-1.1	5.5	0.5	4.1	5.5	7.6	3.9	8.0	5.2	4.9	-6.0	6.3
Netherlands	2.2	-3.7	1.3	1.6	-1.0	-0.1	1.4	2.2	2.9	2.4	1.7	-6.8	4.6
Austria	1.5	-3.8	1.8	2.9	0.7	0.0	0.7	2.1	2.5	2.4	1.6	-7.1	5.6
Poland	4.2	2.8	3.6	5.0	1.6	1.4	3.3	3.1	4.9	5.3	4.1	-4.4	4.3
Portugal	0.3	-3.1	1.7	-1.7	-4.1	-0.9	0.8	2.0	3.5	2.6	2.2	-9.8	6.0
Romania	9.3	-5.5	-3.9	2.0	2.1	3.5	3.4	4.8	7.1	4.4	4.1	-6.0	4.0
Slovenia	3.5	-7.5	1.3	0.9	-2.6	-1.0	2.8	3.1	4.8	4.1	2.4	-7.0	6.1
Slovakia	5.6	-5.5	5.7	2.9	1.9	0.7	2.8	2.1	3.0	3.9	2.4	-9.0	7.4
Finland	0.8	-8.1	3.2	2.5	-1.4	-0.9	-0.4	2.8	3.3	1.5	1.1	6.3	2.8
Sweden	-0.5	-4.3	6.0	3.2	-0.6	1.2	2.7	2.1	2.6	2.0	1.3	-5.3	3.1

Great Britain/United Kingdom*	-0.3	-4.2	1.9	1.5	1.5	2.1	2.6	1.9	1.9	1.3	1.5	-9.7	3.1
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Note: f – forecast, * as of February 1, 2020 Great Britain is no longer the member of the European Union

Source: In-house elaboration compiled on the basis of: Eurostat, <http://ec.europa.eu/Eurostat/data/database>; European Commission (Summer 2020r.) https://ec.europa.eu/commission/presscorner/detail/pl/ip_20_799.

The internal situation of many EU Member States and international conditions were not conducive to balancing public finance and strengthening their stability. This was reflected, among other things, in difficulties in balancing the annual revenues and expenditures of the State budget, budgets of local government units and extra-budgetary funds.

The dominant situation in the EU countries was the deficit of the general government sector (Table 4). Over the last twenty years it has occurred, in shorter or longer intervals, in almost all Member States. Exceptions include countries which, for at least a few years, have had a surplus of revenues over expenditures. These countries are Germany, Estonia, Sweden, and above all Luxembourg. The increase in public finance deficits occurred during periods of recession and the Sanation, which is particularly evident since 2009. It is also worth noting the efforts of many governments to reduce excessive deficits, as was evident in the second half of the 1920s. The level of budget deficits varied between Member States, with the highest deficit indexes in Greece, Spain, and Ireland. In the latter, in 2010, it amounted to 32.1 % and was more than ten times higher than the level set in the Maastricht fiscal criteria.

Table 4. Surplus/deficit of the general government sector of EU Member States 2008-2021 (% of GDP)

Details	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020f	2021f
UE-28	-2.5	-6.6	-6.4	-4.6	-4.3	-3.3	-2.9	-2.4	-1.7	-1.1	-0.7	-0.8	-8.3	-3.6
Euro Zone-19	-2.2	-6.2	-6.3	-4.2	-3.7	-3.0	-2.5	-2.0	-1.5	-1.0	-0.5	-0.6	-8.5	-3.5
Belgium	-1.1	-5.4	-4.1	-4.3	-4.3	-3.1	-3.1	-2.4	-2.4	-0.7	-0.8	-1.9	-8.9	-4.2
Bulgaria	1.6	-4.0	-3.1	-2.0	-0.3	-0.4	-5.4	-1.7	0.1	1.1	2.0	2.1	-2.8	-1.8
Czech Republic	-2.0	-5.5	-4.2	-2.7	-3.9	-1.2	-2.1	-0.6	0.7	1.5	0.9	0.3	-6.7	-4.0
Denmark	3.2	-2.8	-2.7	-2.1	-3.5	-1.2	1.1	-1.2	0.1	1.8	0.7	3.7	-7.2	-2.3
Germany	-0.1	-3.2	-4.4	-0.9	0.0	0.0	0.6	0.9	1.2	1.2	1.9	1.4	-7.0	-1.5
Estonia	-2.6	-2.2	0.2	1.1	-0.3	0.2	0.7	0.1	-0.5	-0.8	-0.6	-0.3	-8.9	-3.4
Ireland	-7.0	-13.8	-32.1	-12.8	-8.1	-6.2	-3.6	-2.0	-0.7	-0.3	0.1	0.4	-5.6	-2.9
Greece	-10.2	-15.1	-11.2	-10.3	-8.9	-13.2	-3.6	-5.6	0.5	0.7	1.0	1.5	-7.0	-1.8
Spain	-4.6	-11.3	-9.5	-9.7	-10.7	-7.0	-5.9	-5.2	-4.3	-3.0	-2.5	-2.8	-10.1	-6.7
France	-3.3	-7.2	-6.9	-5.2	-5.0	-4.1	-3.9	-3.6	-3.6	-2.9	-2.3	-3.0	-9.9	-4.0
Croatia	-2.8	-6	-6.5	-7.9	-5.4	-5.3	-5.3	-3.3	-1.0	0.8	0.2	0.4	-7.1	2.2
Italy	-2.6	-5.1	-4.2	-3.6	-2.9	-2.9	-3	-2.6	-2.4	-2.4	-2.2	-1.6	-11.1	-5.6
Cyprus	0.9	-5.4	-4.7	-5.7	-5.6	-5.8	-8.7	-1	0.3	2	-3.7	1.7	-7.0	-1.8
Latvia	-4.3	-9.6	-8.7	-4.3	-1.4	-1.2	-1.6	-1.4	0.2	-0.8	-0.8	-0.2	-6.3	4.5
Lithuania	-3.1	-9.1	-6.9	-9	-3.1	-2.6	-0.6	-0.3	0.2	0.5	0.6	0.3	-6.9	2.7
Luxembourg	3.5	-0.2	-0.4	0.6	0.5	0.8	1.3	1.3	1.8	1.3	3.1	2.2	-4.8	0.1
Hungary	-3.8	-4.8	-4.5	-5.2	-2.3	-2.6	-2.8	-2	-1.8	-2.5	-2.1	-2	-5.2	-4.0
Malta	-4.2	-3.2	-2.4	-2.4	-3.5	-2.4	-1.7	-1	1	3.3	1.9	0.5	-6.7	-2.8
Netherlands	0.2	-5.1	-5.2	-4.4	-3.9	-2.9	-2.2	-2	0	1.3	1.4	1.7	-6.3	-3.5
Austria	-1.5	-5.3	-4.4	-2.6	-2.2	-2	-2.7	-1	-1.5	-0.8	0.2	0.7	-6.1	-1.9

Poland	-3.6	-7.3	-7.4	-4.9	-3.7	-4.2	-3.6	-2.6	-2.4	-1.5	-0.2	-0.7	-9.5	-4.0
Portugal	-3.7	-9.9	-11.4	-7.7	-6.2	-5.1	-7.4	-4.4	-1.9	-3	-0.4	0.2	-6.5	-1.8
Romania	-5.4	-9.1	-6.9	-5.4	-3.7	-2.1	-1.2	-0.6	-2.6	-2.6	-2.9	-4.3	-9.2	-11.4
Slovenia	-1.4	-5.8	-5.6	-6.6	-4	-14.6	-5.5	-2.8	-1.9	0.0	0.7	0.5	-7.2	-2.1
Slovakia	-2.5	-8.1	-7.5	-4.5	-4.4	-2.9	-3.1	-2.7	-2.5	-1.0	-1.0	-1.3	-8.5	-4.2
Finland	4.2	-2.5	-2.5	-1	-2.2	-2.5	-3.0	-2.4	-1.7	-0.7	-0.9	-1.1	-7.4	-3.4
Sweden	1.9	-0.7	0	-0.2	-1.0	-1.4	-1.5	0.0	1.0	1.4	0.8	0.5	-5.6	2.2
Great Britain	-5.1	-10.1	-9.3	-7.5	-8.2	-5.5	-5.6	-4.6	-3.3	-2.5	-2.2	-2.1	-10.5	-6.7

Note: *f* – forecast.

Source: In-house elaboration based on Table 3.

In 2020, a deep deficit in the general government sector was expected in all EU countries. According to the European Commission's forecast, the negative balance for the EU (already without the UK) was to be -8.3%, and for the Eurozone -8.5%. The greatest shortage of public finance, in relation to GDP, was to be found in Italy (-11.1%), Spain (-10.1%), France (-9.9%) and Poland (-9.5%). In the following year, 2021, it was announced that the EU economy would return to the path of economic growth. The situation in the sphere of public finance should also improve, and in several countries (Croatia, Latvia, Lithuania, and Luxembourg), a budget surplus should be developed.

The rapid growth of budget expenditures, with a simultaneous decrease in fiscal revenues, was associated with the need for additional expenditures on health care and the need to counteract the effects of the economic recession (e.g. financing the enterprises, keeping jobs, increasing liquidity of the banking sector, public investments). According to IMF data, in August 2020, the estimated expenditures on fighting the pandemic in the European Union was almost 10% of GDP.³

Financing of public finance deficits is primarily done through liabilities incurred by the State and public-private partnerships, which results in an increase in public debt. The analysis of the structure of debt in global and regional terms shows that European Union countries are the group with the highest public debt to GDP ratio. Between 2008 and 2019, the value of the gross debt of the general government sector in the EU increased from 7,199 billion euros to 10,833 billion euros. While in 2008 this debt as a share of GDP was 61.3%, in 2019 it stood at 79.3% (Table 5). In the corresponding period, the debt ratios for the Euro area countries developed accordingly as: 69.6% and 102.7%. The biggest burden with public debt in 2019 was in Greece (176.6%), Italy (134.8%) and Portugal (117.7%). Among the countries with a lower level of public debt there are: Estonia, Bulgaria, and Luxembourg. High budget deficits in the European Union countries in 2020 will

³ In July 2020 the European Council agreed on a Multiannual Financial Framework for 2021-2027 of €1,824.3 billion and a new, extraordinary Next Generation EU Recovery Facility of €750 billion. It has been assumed that the financing of the EU reconstruction plan will come from the proceeds of the European Commission that has issued its bonds with a maturity of 3 to 30 years. Member States will be able to use the funds raised in the form of grants and loans. Repayment of liabilities related to the implementation of Next Generation EU will take place in 2027-2058 from future budgets of EU.

cause a significant increase in the debt to GDP ratio. The increase will range from a few percentage points in the case of e.g. Luxembourg, Bulgaria, Malta, or Sweden to a dozen or so or even more than twenty percentage points, as may be the case in Greece and Italy.

8. The Situation of the General Government Finance Sector in Poland and its Circumstances

Public finances are among the basic properties of the State and are managed within the framework of national financial and budgetary policies. The State is responsible for a state of public finance, their balance, stability, and security. The international aspects of public finance relate to the participation of countries in international and supranational organizations.

Table 5. Consolidated debt of the general government sector of EU Member States 2008-2020 (% of GDP)

Details	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020 f
UE-28	61.3	74	79.6	82.0	84.4	86.3	87.0	84.9	83.8	82.1	80.4	79.3	95.1
Euro Zone-19	69.6	80.2	85.8	87.7	90.7	92.6	92.8	90.9	90.0	87.8	85.8	84.1	102.7
Belgium	93.2	100.2	100.3	103.5	104.8	105.5	107	105.2	104.9	101.7	99.8	98.6	113.8
Bulgaria	13.0	13.7	15.4	15.2	16.7	17.1	27.1	26.0	29.3	25.3	22.3	20.4	25.5
Czech Republic	28.3	33.6	37.4	39.8	44.5	44.9	42.2	40.0	36.8	34.7	32.6	30.8	38.7
Denmark	33.3	40.2	42.6	46.1	44.9	44.0	44.3	39.8	37.2	35.8	33.9	33.2	44.7
Germany	65.5	73.0	82.4	79.8	81.1	78.7	75.7	72.1	69.2	65.3	61.9	59.8	75.7
Estonia	4.5	7.2	6.6	6.1	9.8	10.2	10.6	10.0	10.2	9.3	8.4	8.4	20.7
Ireland	42.4	61.5	86	111.1	119.9	119.9	104.4	76.7	73.8	67.7	63.5	58.8	66.4
Greece	109.4	126.7	146.2	172.1	159.6	177.4	178.9	175.9	178.5	176.2	181.2	176.6	196.4
Spain	39.7	53.3	60.5	69.9	86.3	95.8	100.7	99.3	99.2	98.6	97.6	95.5	115.6
France	68.8	83	85.3	87.8	90.6	93.4	94.9	95.6	98.0	98.3	98.1	98.1	116.5
Croatia	39.3	48.7	57.8	64.4	70.1	81.2	84.7	84.3	80.8	77.8	74.7	73.2	88.6
Italy	106.2	116.6	119.2	119.7	126.5	132.5	135.4	135.3	134.8	134.1	134.8	134.8	158.9
Cyprus	45.6	54.3	56.4	65.9	80.3	104	109.2	107.5	103.4	93.9	100.6	95.5	115.7
Latvia	18.6	36.9	48.1	43.9	42.4	40.3	41.6	37.3	40.9	39.3	37.2	36.9	43.1
Lithuania	14.6	28	36.3	37.2	39.8	38.7	40.6	42.6	39.7	39.1	33.8	36.3	48.5
Luxembourg	15.4	16.1	20.2	19.0	22.0	23.7	22.7	22.0	20.1	22.3	21.0	22.1	26.4
Hungary	71.8	78.2	80.6	80.8	78.6	77.4	76.8	76.2	75.5	72.9	70.2	66.3	75.0
Malta	62.6	67.6	67.5	70.2	67.8	68.4	63.4	58	55.5	50.3	45.6	43.1	50.7
Netherlands	54.7	56.8	59.2	61.7	66.2	67.7	67.8	64.6	61.9	56.9	52.4	48.6	62.1
Austria	68.7	79.9	82.7	82.4	81.9	81.3	84	84.9	82.9	78.3	74.0	70.4	78.8
Poland	46.7	49.8	53.5	54.5	54.1	56.0	50.8	51.3	54.3	50.6	48.8	46.0	58.5
Portugal	75.6	87.8	100.2	114.4	129	131.4	132.9	131.2	131.5	126.1	122	117.7	131.6
Romania	12.3	21.8	29.6	34.0	37.0	37.6	39.2	37.8	37.3	35.1	34.7	35.2	46.2
Slovenia	21.8	34.5	38.3	46.5	53.6	70	80.3	82.6	78.7	74.1	70.4	66.1	83.7
Slovakia	28.6	36.4	41.0	43.5	51.8	54.7	53.5	51.9	52.0	51.3	49.4	48.0	59.5
Finland	32.6	41.5	46.9	48.3	53.6	56.2	59.8	63.6	63.2	61.3	59.6	59.4	69.4
Sweden	37.7	40.9	38.1	37.3	37.6	40.4	45.1	43.9	42.2	40.8	38.8	35.1	42.6
Great Britain	49.4	63.3	74.6	80.1	83.2	84.2	86.2	86.9	86.8	86.2	85.7	85.4	102.1

Note: f - forecast

Source: In-house elaboration based on Table 3.

This participation results in links between national budgets and funds common to the whole organization (e.g. linking the finances of the EU Member States to the general EU budget and the EBRD) and obligations to comply with jointly adopted rules on the management of public funds (in the EU this rule applies, for example, to the excessive deficit procedure).

The social and economic situation of Poland in the first two decades of the present century was developing - also in comparison with the other EU Member States - relatively favorably (Table 6). During this period Poland - as the only EU country - registered a positive GDP growth rate. However, this situation was accompanied by periods when the growth dynamics were weakening. This took place in 2001-2002, 2009-2010 and 2012-2013. The economic prosperity on a good level collapsed in early 2020. Instead of the expected economic prosperity downturn, GDP is expected to fall significantly (by 4.6%), compared to the previous year. The projected recovery of the economy in 2021 at 4.3% of GDP is, as in other countries, uncertain.

Table 6. Basic macroeconomic indexes of Poland in 2008-2021

Details		2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020f	2021f
GDP (in million euros)		366.2	317.1	361.8	380.2	389.4	394.7	411.2	430.3	426.6	467.3	497.6	529.0	504.7	526.4
Real GDP growth rate (in %)		4.2	2.8	3.6	5.0	1.6	1.4	3.3	3.8	3.1	4.9	5.3	4.1	-4.6	4.3
Deficit/surplus (% of GDP)		-3.6	-7.3	-7.4	-4.9	-3.7	-4.2	-3.6	-2.6	-2.4	-1.5	-0.2	-0.7	-9.5	-3.8
Public debt (EDP: Excessive Deficit Procedure)	billion zlotys	600.8	683.9	774.7	856.6	883.5	931.1	873.9	923.4	1010.1	1007.1	1035.7	1045.1	1262.0 (Second quarter)	no data
	euro	144.7	166.5	194.5	191.6	216.2	223.4	204.5	216.6	229.0	241.1	240.8	245.5	no data	no data
Debt structure (in %)	domestic	66.4	62.6	56.8	50.8	47.0	49.1	42.9	43.0	47	49.3	52.5	58.0	64.7 (Second quarter)	
	foreign	33.6	37.4	43.2	49.2	53.0	50.0	57.1	57.0	53.0		47.5	41.4	35.3 (Second quarter)	no data
Public debt (% of GDP)		46.7	49.8	53.5	54.5	54.1	56.0	50.8	51.3	54.3	50.6	48.8	46.0	59.5 (61.9)m	58.3 (64.1)m
Inflation rate (%)		4.2	4.0	2.6	3.9	3.7	0.8	0.1	-0.7	-0.2	1.6	1.2	2.1	2.7	2.8
Unemployment rate (%)		7.1	8.2	9.7	9.7	10.1	10.3	9.0	7.5	6.2	4.9	3.9	3.3	7.5	5.3

Note: *f* – forecast, *m* - forecast by Ministry of Finance

Source: *In-house elaboration compiled on the basis of Eurostat,*

<https://ec.europa.eu/eurostat/data/database>; European Commission (Spring 2020)

https://ec.europa.eu/commission/presscorner/detail/pl/ip_2; Ministry of Finance, quarterly bulletin / September 2020/, in-house estimates.

All internal and external factors, including medium and long-term growth dynamics in the real economy and foreign trade, significantly determined the situation in the public finance sector. Despite the continued positive GDP growth rate, the balance between budget revenues and expenditures has not been restored. This applies to both the government sector (including social security) and local government sector.

A high public finance deficit occurred at the beginning of the 21st century. Between 2001 and 2004, it amounted to 5-6% of GDP. (IMF). After another four-year

period, during which the budget deficit was reduced, it increased rapidly in 2009-2010 to over 7%. The first half of the second decade was characterized by deficit indexes of the general government sector of 3.6-4.8%. Poland has been subject to the EU's excessive deficit procedure and the obligation to carry out remedial actions. The reduction of both the deficit and the public debt was possible due to the operation conducted in 2014. The operation consisted of the government taking over State Treasury bonds from Open Pension Funds and then redeeming them.

Although the government's decisions have met with criticism, the simultaneous efforts to balance public finances have led to a deficit reduction of -2.6% in 2015. Favorable economic situation in the next four years, accompanied by low inflation and unemployment rate (Table 6), allowed to reduce the negative general government balance-to-GDP ratio in 2009 to -0.2% in 2018 and -0.7% in 2019. The emergence of the COVID-19 pandemic at the turn of 2019/2020 caused a deterioration in internal and external conditions for the functioning of society, economy, and public finance.

According to forecasts of the IMF, the European Commission and the Polish Ministry of Finance, Poland's public finance deficit in 2020 will be between -6.7% and -9.2%. In 2021, it is expected to be between -3.5% and -3.8. Such a high imbalance between public revenues and expenditures in 2020 results from the deterioration of the macroeconomic situation and the freezing of certain sectors of the economy, as well as actions taken under the so-called Anti-Crisis Shield. Its implementation assumes spending 312 billion, which will be allocated to: financial shield for companies and employees (100 billion PLN), financing of enterprises (74.2 billion PLN), public investment program (30 billion PLN), employee security (30 billion PLN) and health care (7.5 billion PLN).

Financing the deficit of the general government sector, in the absence of adequate reserves, requires incurring further liabilities and inevitably leads to an increase in public debt.

In the history of Polish public debt, the situation at the beginning of the eighties, when the government unilaterally announced the suspension of the foreign debt handling, i.e., announced the insolvency, takes a special place. This has resulted in an upset in financial stability and reduced the financial security of the State. It was also difficult to overcome the then deep economic crisis. The unfavorable situation changed as late as in the 1990s, after a deep political and economic transformations took place. The problem of public debt was mitigated because of its restructuring, in collaboration with foreign lenders, associated in the so-called London and Paris Clubs.

In the last twenty years, Poland's public debt, both in nominal and real terms, has not posed a significant threat to the country's financial security. The credibility of the State in the national and international financial markets was not questioned.

This is evidenced, among other things, by the credit ratings formulated by global rating agencies, (Fitch Ratings, Moody's, Standard & Poor's), which have classified our commitments at investment level with labels from BBC+ to A (Rating, 2020).

The debt of the Polish general government sector in nominal terms has steadily increased from PLN 291.2 billion in 2000 to PLN 600.6 billion in 2008 and PLN 1035.7 billion in 2019 (see Table 6). The rate of debt growth varied. A particularly significant increase in the general government debt-to-GDP ratio took place in 2001-2003 (from 37.3% to 46.6%) and in 2007-2013 (from 44.2% to 55.7%). These were periods of economic prosperity downturn and subsequent difficulties. In the second decade of the 21st century, the nominal value of debt decreased compared to the previous year: in 2014 by 49.3 billion PLN and in 2017 by 2.9 billion PLN. The significant drop in debt in 2014 resulted from the redemption of Treasury bonds, previously taken over by the government from Open Pension Funds.

A significant change in the situation of public finances, their balance and stability took place in 2020. Its manifestation is the rapid growth of public debt. According to international institutions' forecasts, the general government debt-to-GDP ratio will increase to 58.5% in 2020 and remain at a similar level (58.3%) in 2021. The Polish Ministry of Finance expects an even higher increase in this ratio, 61.9% and 64.1% respectively. This trend is confirmed by the results of the first two quarters of 2020, which saw an increase in debt from 1,045.5 billion at the end of 2019 to 1,103.4 billion PLN in the first quarter and 1,262.0 billion PLN in the second quarter, i.e. by PLN 216.7 billion PLN (20.7%). A significant increase in debt resulted from the financing of the State's borrowing needs. Further liabilities were incurred through the issue of Treasury Securities (bonds), in the domestic and international financial markets.

The increase in liabilities occurred in the situation of handling the existing public debt. The costs associated with this debt handling in 2019-2021 are relatively high. In 2019, the State Treasury spent 27.3 billion (1.20% of GDP) on this account. In the next two years it will be: PLN 29.8 billion (1.33% of GDP) in 2020 and PLN 28.0 billion (1.19% of GDP) in 2021.

The development of the public finance balance and public debt in Poland and other EU Member States shows a deviation from the recommendations of the EU Council to respect prudential rules in budgetary policy. The extraordinary social and economic situation caused by the pandemic prompted the European Commission, in early 2020, to propose a general exit clause from the relevant regulations included in the Stability and Growth Pact. Their acceptance by the Economic and Financial Affairs Council (ECOFIN) allows Member States to spend additional financial resources to combat pandemics and crises. In Polish conditions,

this allows for the execution of projects related to the previously mentioned Anti-Crisis Shield and Financial Shield.

9. Conclusion

The security of public finances and their stability are becoming the subject of increasing interest in economic theory, policy, and practice. This is because public finance imbalances and debt of the general government sector are still an unresolved problem that occurs globally, regionally and in the vast majority of countries. This century has not brought any improvement in this area. The increased risk of public finance collapse in periods of economic prosperity downturns and crises is confirmed by the analyses presented in this paper.

Economics and financial theory do not provide clear answers to questions about the optimal level of budget deficit and a State debt. Depending on the paradigms represented, they justify both respecting the principle of budgetary balance and respecting the usage of public debt to stimulate the economic prosperity, especially in crisis situations.

In the context of the trend of increasing public debt, which has been consolidated in recent decades, there is a significant variation in the level of public debt and its ratio to GDP, in relation to individual regions and countries. In the last twenty years, a high level of public debt has occurred in developed countries and a lower level in developing countries. This was due to lower creditworthiness and higher costs of debt handling in developing and emerging economies.

Periods of economic prosperity and relatively high public revenues were not sufficiently used to improve the difficult situation of public finance, and every economic recession resulted in an increase in public expenditures, while revenues were decreasing. This inevitably leads to the emergence and growth of budget deficits, which are financed through debt instruments. In 2020, public debt will exceed the value of the gross world product.

Imbalance of public finances and the indebtedness of States make it difficult to overcome both current economic and social problems and to shape favorable conditions for economic development. The rapid increase in the liabilities of the general government sector will result in the need to allocate more and more public funds to its handling in the coming years, and thus will reduce expenditure on the implementation of current and investment needs of the State. Many countries will fall into the so-called debt trap.

In the fiscal policy the preference for current political and social goals was noticeable. Less importance was assigned to taking decisions and making the necessary systemic changes to create stable conditions for a lasting and noticeable improvement in the situation of meeting public needs. There is still insufficient

support for public finances stimulating the development of science, the growth of innovativeness of enterprises and competitiveness of the economy. The prevailing economic policy at the turn of the second and third decade was focused on actions aimed at overcoming the COVID-19 pandemic and limiting the effects of the crisis. This is done at the expense of increasing debt and increasing future expenditures to handle debt. Justifying such a strategy of public finance management, from the point of view of economic and financial security of the State, the protection of entities and persons most at risk and public investment expenditures in the field of health care, education, social housing, environmental protection and digitization should be preferred.

In public finance management, it becomes necessary to identify risks and uncertainties related to threats that may occur over the next few or even a dozen or so years and to develop a long-term strategy for action in all sub-sectors.

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