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ECONOMIC DEVELOPMENT AND POLICIES IN BULGARIA: EVALUATIONS AND PROSPECTS

Focus:
Reforms in Bulgaria's Pension System – Content, Results, Challenges and Solutions

Economic Research Institute at BAS

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Sofia
2020

The report analyzes the state of the Bulgarian economy in 2019 and outlines the perspectives for its development in middle term. The focus is on the reforms in the pension system of Bulgaria, their content, results, challenges and solutions.
Analysis and forecast evaluation are directed towards a wider circle of specialists and most of all the state institutions, employers' and workers' organizations, municipal and local authorities structures, non-government organizations, scientific community and the general public. The conclusions about the macroeconomic development and policies concern the opportunities for improvement.
The evaluations and projections are expert ones and reflect the views of the authors.

The report is discussed and approved by the Scientific Council in the Economic Research Institute at BAS.

We wish to thank the members of the Expert Council and the Scientific Council at the Economic Research Institute at BAS for their comments and recommendations.

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CONTENTS

ABBREVIATIONS

AW	-	Average Wage
BAS	-	Bulgarian Academy of Sciences
BNB	-	Bulgarian National Bank
BSE	-	Bulgarian Stock Exchange
CFP	-	Consolidated Fiscal Program
EA	-	Employment Agency
EBA	-	European Banking Authority
ERI	-	Economic Research Institute (at BAS)
ERM II	-	Exchange-Rate Mechanism II
ESF	-	European Social Fund
EU	-	European Union
FDI	-	Foreign Direct Investments
FJ	-	Free Jobs
GDP	-	Gross Domestic Product
GFC	-	Global Financial Crisis
GFR	-	Gross Foreign Reserves
GS	-	Government Securities
GVA	-	Gross Value Added
HICP	-	Harmonized Indices of Consumer Prices
HRD OP	-	"Human Resources Development" Operational Program
IFRS 9	-	International Financial Reporting Standard 9 (financial instruments)
ILO	-	International Labor Organization
IMF	-	International Monetary Fund
LFM	-	Labor force monitoring
LO	-	Labor Office
MF	-	Ministry of Finance
MW	-	Minimum Wage
NBFI	-	Non-bank financial institution
NFC	-	Non-Financial Corporations
NFI	-	Non-Financial Institutions
NIFC	-	Net income from fees and commissions
NPISH	-	Non-Profit Institutions Serving Households
NSI	-	National Statistical Institute
p.p.	-	Percentage Point
PB	-	Payment Balance
PFI	-	Public Financial Institutions
PPS	-	Purchasing Power Standard
ROE	-	Return on Equity
SB	-	State Budget
SCBI	-	Small Consumer Basket Index
WB	-	World Bank

SUMMARY

Economic Research Institute at the Bulgarian Academy of Sciences presents to the scientific community, institutions and the general public another annual report analyzing the economic development of Bulgaria and the implemented economic policies. The report examines the state and the development of the national economy in 2019 and presents forecast estimates for the economic development in the medium term. It studies the main sectors of the economy (real, external, fiscal, monetary, banking) and analyzes the labor market. This year the focus is on the problems of the pension insurance.

The goal of the report is to analyze the ongoing economic processes in Bulgaria in the previous year, to forecast their development, under the conditions of COVID-19, in the medium term, to evaluate the implemented policies and to draw specific conclusions and recommendations. Based on a structural macroeconomic model, a grounded medium-term macroeconomic framework is proposed, reflecting different assumptions for the development of the foreign economic environment as well as the expected economic policies.

The report consists of two parts. ***PART ONE*** contains analytical studies of the economic environment (external and internal), as well as evaluations and short-term forecasts of the most important variables included in the macroeconomic model. The main macroeconomic parameters of the development of Bulgaria and a forecast evaluation until 2022 are presented. Conclusions are drawn on the trends in their development, as well as proposals for improvement of the implemented policies. The different chapters analyze the economic policy by economic sectors.

Chapter One analyzes the economic environment (internal and external) in which the economy has developed over the past year and outlines the main expectations for the coming 3-year period. *Concerning the global trends*, it states that from the second half of 2018, international financial institutions and experts have begun to revise downwards the short- and medium-term forecasts for the development of the global economy and trade. There are forecasts showing thah the most developed economies are falling into a recession. At the beginning of this year, a pandemic of the new coronavirus broke out, which radically changed the evaluations and the expectations of the future. There is still no satisfactory and generally accepted answer to what exactly happens from both medical and economic point of view. Prior to the pandemic, the reasons for the slowdown of the global growth were considered to be the exhaustion of the effects of the fiscal stimuli in USA, accompanied by a gradual tightening of the monetary policy. To this should be added the stagnation in the euro area, and the clear slowdown of the Chinese economy. There are also some specific factors (new fuel emission standards in Germany, natural disasters in Japan) that hinder the activity in the large economies, but these events have taken place together with deteriorating financial market expectations, trade policy uncertainty, and concerns on the prospects for China. It is also outlined that the political and economic problems in the EU have been accumulating for long and that the region is on the verge of a recession sooner than expected, despite the ECB's refusal to change its expansionary monetary policy. After the outbreak of the pandemic, it became clear that all previous forecasts were meaningless, and that the world was entering a deep recession. Given the uniqueness of the situation, there is no consensus among the experts on how long the recession will last. Optimistic expectations are that the global

economy will recover next year, while pessimistic expectations are that this will not happen until 2023.

Chapter Two examines the socio-economic nature of the COVID-19 problem and analyzes the economic consequences of fighting the pandemic.

Chapter Three analyzes the real sector of the economy and evaluates the contribution of the main factors to the achieved growth in 2019, as well as the income distribution in the economy through the prism of the national accounts of Bulgaria. It evaluates the implemented economic policies from the point of view of the growth prospects. It presents the expectations for the economic growth in the medium term, with special focus on the effects of the fight against COVID-19, as well as planned or other possible policies that could have an impact on the growth in the short, medium and long term.

According to the preliminary data from the National Statistical Institute, the economic growth rate has accelerated slightly from 3.1% in 2018 to 3.4% in 2019. The registered growth remains above the average for the EU countries and is comparable to the average growth achieved by the new member states. In the short term, a significant to deep decline is expected in all EU countries, making international comparisons extremely difficult. However, after the end of the pandemic, the eventual maintaining of the current economic growth rates means that convergence to the average income per capita in the EU remains far in the future.

Wages have increased and the improved household expectations have had a positive impact on the private consumption – household consumption increased by 5.8%, supported by continued income growth, increased employment and increased consumers' trust. Consumption growth in the public sector has also been stronger than in previous years, reflecting mainly the increase of the expenditures for personnel and utilities. However, investments have slowed down – gross fixed capital formation has increased by 2.2% in 2019, while in 2018 growth has been 5.4%. For the third year in a row, net exports, which until a few years ago have been the main driver of growth, have a negative contribution to the overall growth. On the positive side, the gap between the growth rates of exports and imports has narrowed.

The trend of the recent years to close the gap between actual and potential GDP has strengthened. An unfavorable finding is that the achieved growth cannot yet be defined as inclusive and has no clear impact on the poverty reduction and the economic and social inequalities. Poverty and income inequality levels are highest in the EU.

Chapter Four analyzes the dynamics and the structure of the budget revenues and expenditures, the changes in the budget balance and government debt, the trends in the taxation and the financial relations between the levels of government, and outlines the dependency between fiscal policy and macroeconomic activity. Special focus is placed on the risks to maintaining fiscal stability. The state of the fiscal sector is considered in terms of the continuing in the recent years annual growth of the budget expenditures in relation to the budget revenues, as well as in view of the changes in the economic environment in the first months of 2020. The need for further revision of the state budget in its expenditure part in 2020 is commented. The implemented fiscal policy is considered not only in connection to attaining a stable fiscal position and its impact on the aggregate demand in the short term, but also in terms of its role in the long-term impact on the growth. Concerning ***revenues***, it is reported that the unfavorable trend in recent years of reduction of the budget revenues in relative terms has been stopped. In 2019, an increase has been registered on all revenue indicators, with main contribution of the tax revenues. The increased tax revenues are a consequence of the increased domestic consumption, increased activity of the economic agents and the measures of the revenue administrations to improve revenue collection and combat smuggling. At the same time, it is noted that the structure of the tax revenues remains mostly unchanged, with indirect taxes having a significant predominance. Economic theory postulates that the taxation of profits and individual incomes has a more pronounced negative effect on the economic growth than the consumption taxes (indirect taxes). This can be interpreted as an argument in favor of the indirect taxes. As a counterpoint to this understanding, it is argued that the big disadvantage of the indirect taxes is their potential regression, which does not allow for bigger fairness in the tax burden distribution. Argued is the benefit of initiating a debate on the need for possible reforms towards increasing the share of direct taxes at the expense of indirect ones and reconsidering the benefits of proportional taxation. Concerning the ***expenditure side***, it is noted that it is more susceptible to direct management impacts, therefore the chronic lag of the actually realized expenditures from the planned ones should be explained by deliberately pursued restrictive fiscal policy, which, however, appears detrimental to the economic dynamics.

Chapter Five studies the labor market. The focus is placed on the understanding that, until recently, the labor market has developed as an inclusive market that stimulates employment, reduces unemployment and earns labor incomes significant to poverty reduction. In the last two years, however, the existing risks, provoked by the technological innovations, demographic changes and globalization, have come to the fore. The COVID-19 pandemic in early 2020 has imposed a number of sanitary restrictions that have accelerated the already ongoing unfavorable changes in the economies in national, European and global plan. In recent months, there have been definite changes in the labor market indicators in Bulgaria, which show the beginning of a crisis that has unique characteristics at the current, initial stage of manifestation. ***It has not started with traditional delay, compared with economic or financial crisis, but preceded them***. And this is quite natural after the necessary withdrawal of a large part of the labor resources from almost all sectors of the economy, which has led to a corresponding delay or suspension of certain groups of productions and changes in the current organization of labor. Another feature of the current labor market crisis is the high degree of its uncertainty under the impact of non-economic factors. The inclusion of persons in employment and the reopening of productions will depend on how soon an appropriate protection against COVID-19 will be offered. There are still no definite predictions on the duration of the period of control of this disease. At least one and a half, two or even more years will pass, during which certain forms of social isolation will continue to be applied and the geographical mobility of the labor force will be limited. It is concluded that COVID-19 will deepen the debate on the future development of labor in the context of the fourth industrial revolution, including digitalization; application of new business models; optimization of production and logistics; improvement of the quality characteristics of the workforce and its competencies.

Chapter Six makes an overview of the development of the external sector, tracing the dynamics of the commodity and geographical structure of exports and imports, as well as of some of the most important commodity groups. The economy maintains the established predominant raw material exports, with Bulgaria considered an exporter mainly of low value-added goods. Significant imports of consumer goods continue. The expectations for the impact of foreign trade on Bulgaria's economic growth in the short term remain conservative. The volumes traded by the Bulgarian companies are influenced by internal and external factors. Internal factors include the uncertainty about the prospects for the transport industry and the reduction of the bookings of foreign tourists for the summer season. External factors are mainly related to the effects of the pandemic and the impact of the international situation. The development of foreign trade relations USA-China and USA-EU, as well as the expectations regarding USA economy entering a recession, affect the international trade as a whole. On the other hand, due to its significant foreign trade concentration, Bulgarian exports may be directly affected by changes in the main partner countries. Therefore, the forecasts for the recovery of the Turkish economy in the medium term, as well as the reports of a possible falling of leading European economies into recession, should be taken into account.

Chapter Seven studies the problems of the financial sector. The dynamics of the main monetary and credit aggregates and interest rates are considered. It is outlined that in the past 2019 the banking sector continues to develop in the direction already established in the recent years. The profit in the system remaines at the same levels, concentration increases, and credit activity remaines far from the pre-crisis levels, despite the continuing decrease of the interest rates and the strengthening of the economic activity in the country. Monetary statistics data show a slight increase of the nominal volume of new business for non-financial enterprises. However, this volume is still lower than the reported one before the global financial crisis in 2008, and when assessing the dynamics in relative terms, there is the unpleasant finding that the real activity weakens. The comparison in longer period does not lead to more favorable findings. It is noteworthy that the relatively weak activity in the corporate segment is accompanied by a slight increase of the share of long-term loans, which, in addition to the somewhat increased demand for investment loans, could be partly explained also by weakening the activity of renegotiation and refinancing of old receivables. With reserved business attitudes, maintaining the credit policy of commercial banks is the main contribution to the growth of the credit activity in the corporate segment.

Chapter Eight presents the main assumptions of the forecast, as well as the very forecast on the main macroeconomic indicators. The macroeconomic forecast developed for the purposes of this report is based on assumptions on the medium-term development in terms of international prices and external demand, as well as in terms of the government's set economic policies outlined in the report of the Ministry of Finance to the state budget for 2020 and its actualization. Special focus is placed on assessing the short-term and medium-term effects of the fight with the pandemic on the economic dynamics and the main macroeconomic indicators. The macroeconomic forecast of ERI-BAS is prepared based on macroeconomic information available as of May 25th, 2020. The projected international prices and expectations for external demand are based on IMF's World Economic Outlook as of April 2020. The other large set of forecast data taken into account are those from the medium-term budget forecast for the period 2020-2022, with Decision № 815 of the Council of Ministers on December 30th, 2019 for approving changes in the updated medium-term budget forecast for the period 2020-2022. By including these forecasts, we take into account the ability of the government to directly influence the amount of public debt and budget expenditures, assuming that the budget deficit target will be achieved mainly by adjusting the capital expenditures.

Chapter Nine summarizes the conclusions and evaluations of the medium-term development and formulates relevant recommendations in the field of macroeconomic policy.

PART TWO of the report is dedicated to the topic of the focus: *Reforms in Bulgaria's pension system – content, results, challenges and solutions*.

Political decisions in the field of the pension insurance have a long-term economic effect due to the fact that any change in the parameters of the pension model affects its financial sustainability not only in the short term, but also in the medium and long term. Therefore, the impact of each legislative initiative should be assessed not only and not so much for the respective budget year, but literally for the full life cycle of an age group – from the beginning of the active life (which is the beginning of the mandatory inclusion in the pension system) till death, and even after that, because there are also survivors' pensions. Based on this specifics, this part of the Annual Report of ERI-BAS traces chronologically the reforms in the pension system in the period 1990-2019 and evaluates their impact in the short and medium term on two main parameters – ***adequacy of the pension payments and financial sustainability of the established pension model***.

With the attempts to solve the problems and find ways to deal with the challenges to the Bulgarian pension system in the public space, various proposals also circulate, but not entire strategies. Most of the proposed reforms can be qualified as a product of either left-wing populism or the already exhausting liberal pragmatism. The idea about reforms in the pension model of the left-wing politicians, supported by the trade unions, relates mainly to changing the parameters of the pay-as-you-go model – a slow increase in the retirement age is adopted, and early retirement schemes are introduced. Very redistributive models are proposed for the pensions determination and their actualization. Many politicians and some trade-union leaders do not support the capital schemes in the pension model, or neglect their role and seek to discredit them by all means. Right-wing political forces, supported by employers' structures, are in favor of limiting the pension expenditures and opposing an increase of the social security contributions. They believe that the participation of the employed people in the financing of the insurance system should increase to 50% and that a bigger share of the pensions should be financed by indirect taxes. A group of liberal economists, on the other hand, persistently repeat that the pension systems of pay-as-you-go type have outlived their usefulness because they have entered maturity stage and have acquired the features of pyramidal structures. For them, capital pension schemes are the only alternative to the outdated "Bismarck"-type pension model.

To avoid the risk of further erosion of the pension system and to restore the trust in it, consistent policy measures should be taken in compliance with the following basic rules:

a) Strict adherence to the social security principles and their rehabilitation where they are violated.

b) Sticking to the philosophy, the legal and institutional framework of the insurance model established in Bulgaria.

c) Considering the three pillars of the pension model as part of a whole without opposing each other.

d) Compliance with the European regulations, directives and recommendations, as well as with all international acts in the social area to which Bulgaria is a party.

e) Predictability and social tolerance of the proposed changes in the short and medium term.

In addition to complying with these leading rules, policies should be timed in such a way as to avoid unbearable pressure on the public finances and leading to high budget deficits. In order to protect the insurance model from political interference, including regressive reforms, automatic mechanisms for self-correction and self-protection against demographic aging, inflation and other challenges should be put in place as far as possible.

PART ONE

ECONOMIC DEVELOPMENT AND MID-TERM FORECASTS

1. Economic Environment in 2019 – Assessment and Short-Term Prospects

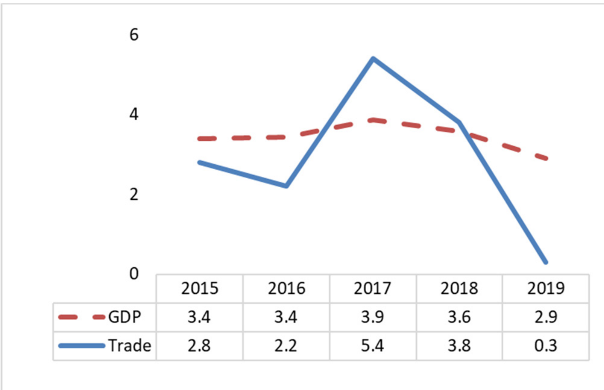
1.1. Internal environment

In 2019, two elections were held – for European Parliament and for local governments. The ruling coalition won both elections, and it generally remained stable despite one of its forming parties leaving it. The year was also full of other significant political events and a certain rearrangement in the political elite, but these events did not affect the economic development. The main macroeconomic variables kept the dynamics established in the last 4-5 years.

1.2. External environment

The conditions for the development of the Bulgarian economy last year were not quite favorable. For a second year in a row, there was a decline in the economic activity both worldwide and in individual regions.

Figure 1. Dynamics of world production and trade (% increase compared to previous year)

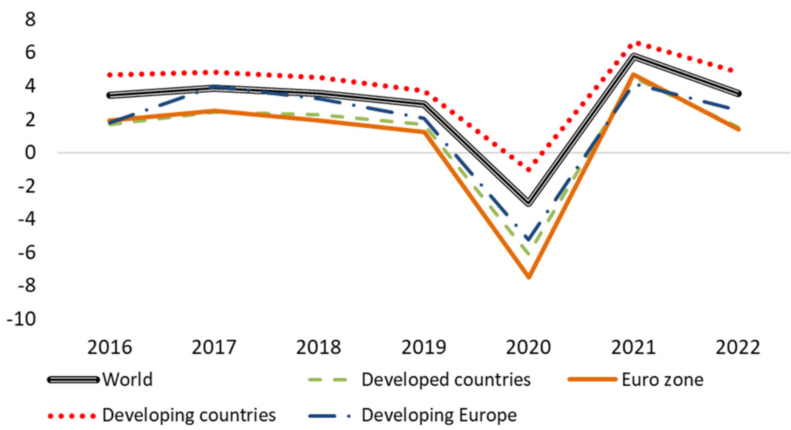


Source: IMF, WEO April 2020.

In 2019, real GDP growth worldwide fell to 2.9% – the lowest rate in a decade. The slowdown can be defined as large-scale – the world industrial production declined sharply amid the growing uncertainty worldwide. Tensions between global economic powers continued to escalate, prompting many companies to refrain from investing. Decline in the world trade was even bigger. The negative trends were caused by the simultaneous action of a combination of negative factors, most important of which were the increasing protectionism and the increasing uncertainty in the trade and the global supply chains.

The health crisis had a strong impact on the economic activity. As a result of the pandemic, IMF forecasted (Figure 2) the global economy to shrink sharply in 2020 (by about 3%), which is a much worse result than the one during the 2008-2009 global financial crisis. The current IMF scenario suggests that the pandemic will subside in the second half of 2020, which will allow a rapid recovery and the global economy is expected to grow by 5.8% in 2021. At the same time, it is acknowledged that this forecast is accompanied by extreme uncertainty. The economic crisis depends on factors that interact in ways that are difficult to predict, including the spread of the infection, intensity and efficiency of the social distancing measures, extent to which individual sectors are affected, scope and depth of the interrupted deliveries, changes in spending stereotypes of the population, and others. In short, the crisis is multilayered and consists of a health shock, internal economic collapses, reduced external demand, reversal of capital flows and a collapse in the prices of main commodity groups.

Figure 2. Dynamics of global GDP



Source: IMF.

Even before the outbreak of the pandemic earlier this year, forecasts of the main international financial institutions indicated a continuing deterioration of the state of the global economy. The winter forecast of EC[1] was indicative, in which several negative trends were highlighted, **not including** the consequences of the fight against COVID-19. The main risks and challenges that directly or indirectly affect Bulgaria, according to the latest **pre-crisis** forecast, are several:

- Global growth remains low and, contrary to previous forecasts, does not expect a significant recovery in the next two years.

- Continuing political uncertainty over USA trade policy will be a main short-term factor slowing down the industrial production and the demand for investment goods. Negative effect will have also some structural trends, including the rising protectionism that threatens to fragment the world economy, the demographic realities and the low productivity growth and the *structural slowdown in China*.

[1] European Commission, Winter 2020 Economic Forecast: Offsetting forces confirm subdued growth.

- The effectiveness of the macroeconomic incentives is questionable and the slowdown might be deeper and for a far longer period than expected.

- The negative external shock is transmitted by a slowdown in the investment activity in the large economies of the euro area. The transfer of negative impacts on the highly integrated economies in Central and Eastern Europe is inevitable.

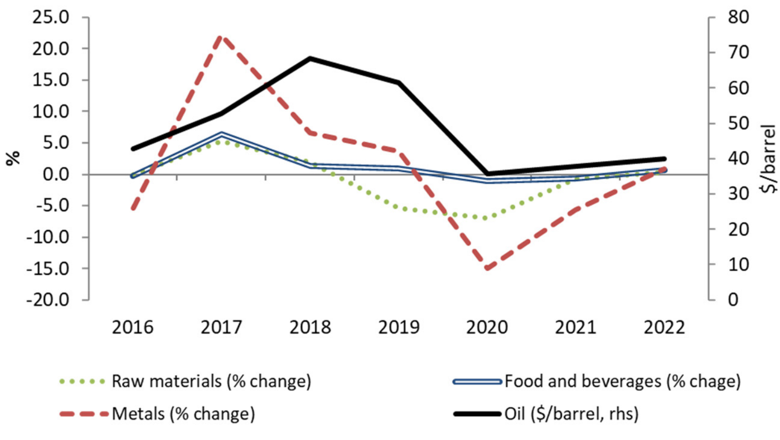
- The automotive industry in Europe faces medium- and long-term structural challenges that are significant enough to affect the overall industrial production.

- The strongly pessimistic tone of the forecast cannot go unnoticed. Other documents, even with clear negative trends, make generally more optimistic forecasts, especially in the medium term. This time there is no such forecast. There are also no references to the last global financial crisis, which have often explained the weaknesses observed in the various sectors. There is every reason to believe that the world has been facing a recession even without the coronavirus.

<u>Decline in prices of main commodity groups</u>

The rapid deterioration of the global economic perspectives had an unfavorable effect on the prices of main commodity groups. According to IMF's spring forecast (IMF, 2020), from mid-January to the end of March prices of metals fell by about 15%, of natural gas – by 38%, and of crude oil – by about 65% (drop of about 40 USD/barrel). Moreover, the futures markets show that oil prices will remain below 45 USD/barrel in the next 2-3 years, which is about 25% lower than the average in 2019.

Figure 3. Price dynamics of main commodity groups

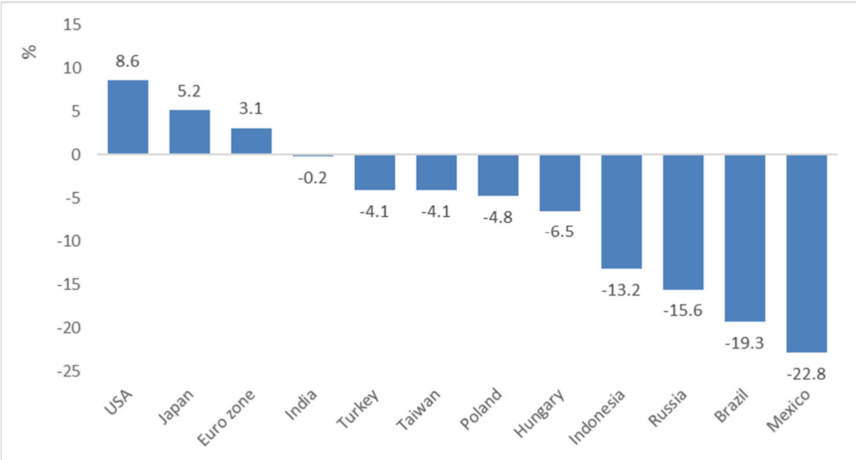


Source: IMF.

Tighter financial conditions

Since mid-February, there is a steady deterioration in the financial conditions, largely due to the decline in the prices of main commodities. Signs of a lack of liquidity in USD appeared with the general escape towards certainty, expressed in the accumulation of highly liquid assets and the sale of lower-class assets.

Figure 4. Dynamics of real effective exchange rate – April 2020 to December 2019



Source: IMF, WEO, April 2020.

The changes in the exchange rates generally reflect the changes in the risk attitudes. The currencies of economies with high export share and flexible exchange rates among the emerging markets depreciated sharply since the beginning of the year, while the real effective exchange rate of USD increased by more than 8%, JPY – about 5%, and EUR – about 3% (Figure 4). In these conditions, several central banks, including BNB, activated bilateral swap line to improve the access to international liquidity. Despite the taken measures, there is little doubt that the widespread tightening of the financial conditions will reduce the economic activity in the short term and will further contribute to the direct negative macroeconomic effects.

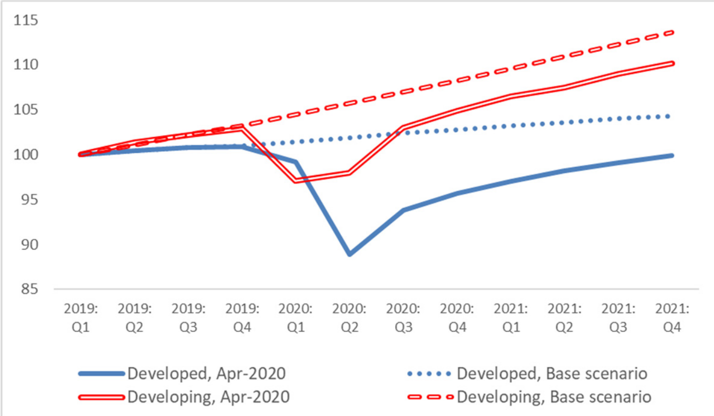
1.1. Risks to global economy

Uncertain recovery

The recovery next year is largely dependent on the possible fading of the pandemic in the second half of 2020, which will allow for gradual lifting of the restrictive measures and the restoration of consumers' and investors' trust. For this purpose, economic action packages have been taken, focusing on maximizing the adjustment of the health requirements to the economic activity and the financial system.

However, regardless of the taken measures, as Figure 5 shows, the level of GDP at the end of 2021 in both developed and developing countries will remain significantly below the expected values before the outbreak of the pandemic.

Figure 5. Global GDP by quarters (Q1 2019 = 100)



Source: IMF, WEO April 2020.

<u>Will the inflation return?</u>

The standard approach to assessing the inflation potential is to examine the state of the labor market, the inflation expectations and the shocks on main commodity groups, such as energy and food prices. Depending on the specifics of the implemented economic policy, specific elements of the monetary and/or fiscal policy can be added to the mentioned framework. In the last three decades, this approach has worked, if not well, at least quite well, and, as a rule, there have been no major discrepancies between the projected and the realized inflation. If we apply this approach to the current situation, the conclusions will show that the governments will have to deal rather with deflationary pressure than inflationary one. The reasons for this are quite clear – unemployment is high and rising, and even after the lifting of the restrictive measures it will probably take years to reduce it to the pre-crisis levels. In such conditions, it is impossible to expect pro-inflationary pressure from the labor payment. Energy prices have literally collapsed in the recent months, those of the basic foods have so far remained stable, or with minimal increases, and the overall price index[2] has declined in March and April.

This can be opposed in terms of fiscal incentives under various programs that increase the liquidity in the financial system. In fact, at least at this stage, these funds do not lead in any way to increased demand. This is because they mostly only replace, not add, income. Also, some of these funds are actually saved due to the well-known effect of

[2] It must be acknowledged that in the short term there will be a serious problem with measuring the inflation. On one hand, this relates to the closure of many trade venues, but the more serious reason is the change in people's behavior and the refusal (or impossibility) of consuming a large volume of goods and services. This leads to big changes in the weights of the individual commodity groups and to incomparability with previous periods.

deliberate limiting of the consumption in times of crisis, as evidenced by the monetary statistics in the last two months. Of course, we can assume also a scenario in which, after the end of the restrictions, demand and consumption increase sharply. If the supply cannot respond quickly to the increased demand (this will largely depend on the level of unrealized production), there will certainly be higher inflation.

It is difficult now to answer the question of how long and sustainable such a process will be, but it is more likely to be only a short-term effect. Looking ahead, there is little reason to expect strong inflationary pressure. This conclusion comes from the accumulated experience, especially of the last global financial crisis, which has shown that the so-called precautionary saving ("a penny for a rainy day") is a quite common and sustainable behavior, leading to a lasting suppression of the consumer demand. We would like to remind that it took the economy more than 5 years to shake off the effects of the last crisis and restore the consumption. From this point of view (and using the traditional analytical approach), there is no reason to assume that the situation will be different now, which means that in the short and medium term the inflation, as far as it exists, will remain low.

As logical as all this might seem, the uniqueness of the situation should not be underestimated. There is no guarantee that the traditional analysis is applicable in the current conditions. There are several factors[3] to consider in the new situation:

- *Rapid increase of public debt*. Globally, indebtedness remains a serious economic problem in many developed economies. It is not impossible to imagine a scenario in which the implemented fiscal policy leads to large deficits, which are ultimately monetized.

- *Rapid increase of natural[4] interest rate*. This can happen in the realization of the first factor[5], as well as with an increase of the investment demand and/or a decrease of the savings.

- *Fiscal dominance*. When realizing the second factor, the economic logics requires a proportional increase of the short-term interest rates, which are usually determined by the central banks. However, given the high indebtedness, governments will put all kinds of pressure on the central banks to keep the interest rates low. Otherwise, it may even lead to difficulties in the debt service. The discrepancy between the natural and short-term (so-called policy rate) interest rates will certainly lead to overheating of the economy and, accordingly, to inflation.

All this leads to the conclusion that the possibility for a more significant increase of the inflation potential is not ruled out, but at this stage it seems unlikely. The observation of the yield curve of the inflation indexed bonds also points to this. Investors obviously do

[3] The analysis here is based on the conclusions in Blanchard, 2020.
[4] Natural (neutral) interest rate means the interest rate at which the economy operates at its potential level.
[5] According to a study by Blanchard (2020), an increase of the public debt by 1 p.p. leads to an increase of the natural interest rate between 2 and 4 base points.

not expect an increase of the natural interest rate, and the yield curve for the indices indexed with the inflation is negative throughout the entire maturity structure.

However, the analysis is only valid in the short term. If in the near future there is little doubt that inflation will remain under control, the uncertainty sharply increases as the forecast horizon widens. Some publications (Miles, Scott, April 4, 2020) and (Baldwin, di Mauro, 2020) look for an analogy with the post-war periods and argue that the increasing inflation is inevitable. Other publications (Blanchard, 2020) argue that there are no grounds for concern, at least not in the short term.

Warnings of increasing inflationary pressure have been expressed by many economists during the GFC, and especially in connection with the launch of the quantitative easing (QE) program. These fears have not been justified and logically arises the question should we be afraid again now? Goodhart and Pradhan (2020) believe that current fears are justified for the following reasons:

First, QEs were implemented in a way that ultimately limited the liquidity inflows to only a sharp increase of reserve money, as banks failed to continue the monetary impulse to the end users. The excess reserves of the commercial banks increased enormously, the money multiplier shrank and there was practically no significant change in the money supply. The measures now, especially the fiscal ones, represent a direct increase of the money supply.

Second, recovery speed of the world economy – the stronger and faster the recovery, the more liquid injections will be pro-cyclical, respectively pro-inflationary.

Third, China's role in the world economy so far could be characterized as "deflation exports". After the crisis, this role will change to neutral in the short term and increasingly inflationary in the future.

Fourth, in the last 2-3 decades the inflation has been low because there has been no strong pressure by the trade unions and the workers to increase wages. Data show that real wages in the last 30 years in the developed countries have remained rather stable. This has been facilitated by the big shock on the labor supply in the process of globalization, which in the recent years has been increased by the migration wave and the tendency of the newly arrived workers to offer their labor at much lower prices. This is likely to end in the near future. The ongoing processes in many developed countries give grounds to conclude that the growing role of nationalist and populist movements will also affect trade union activity.

Fifth, solving the unemployment problem is of as much economic as political nature. If unemployment steadily increases, governments will be forced to resort once again to the debt financing, which will certainly have inflationary effects.

These arguments allow us to conclude that in the short term the inflation will be low (there might be even periods of deflation), but in the medium and longer term the probability of a significant acceleration of the inflation is high.

2. Economic Consequences of the Fight against COVID-19

2.1. What happens now?

The current situation forces any economic analysis to take into account the development of the pandemic and the measures taken to control it. One of the specifics of the COVID-19 pandemic and the policies implemented to control its spread is that it contains many of the characteristics of a supply shock. As well argued by Guerrieri, Lorenzoni, Straub, Werning (2020), when the supply shock is asymmetric across the different sectors of the economy, it causes a demand shrink, even greater than the initial shock, which ultimately leads to a deflationary pressure. This is due both to the mutual complementarity between the sectors and to the fact that the vast majority of employed in the most affected sectors do not have insurance against such risk.

COVID-19 pandemic and the taken social distancing measures have huge economic effects. Some of them are visible and immediate (unemployment increase, sales collapse, disrupted transport supplies, tourism collapse). However, there are also effects that will occur later and are likely to be longer (increasing indebtedness, decreased investments, declining productivity). Governments and central banks around the world have shown clear intentions to do everything possible to mitigate these effects. The immediate concern of the economic policy is to protect the livelihoods of the people working in sectors directly affected by the blocking policies. A fundamental question, however, is what should be the form of the support? Should it be directed to a maximum preservation of the production volumes and employment? Should it be directed to promoting the so-called “effective demand” (according to Keynes)? Should the policy concentrate entirely on providing forms of social security with a focus on the most needing people? Express analyses of the taken measures[6] show that the measures are quite diverse in different countries, but it seems that priority is given to measures directed to supporting the demand. In other words, the shock is supposed to be primarily on the demand. How justified is such an approach?

There is every reason to believe that the current shock caused by the coronavirus is a supply shock, but with some specifics. The main idea of Rowe (2020) is that a 100% temporary production decrease in 50% of the sectors (what the coronavirus does) is very different from a 50% production decrease in 100% of the sectors (what our intuition tells us when building macro models). In the first case, insufficient demand can easily be reached in the affected sectors, and in the second case we will have increased demand in all sectors. From this point of view, the assumption that in this case we are facing the so-called “Keynesian supply shock” seems quite real. It is characterized by the fact that the subsequent effect on the demand may be stronger than the initial shock on the supply due to the imperfect markets. In these cases, the standard fiscal incentive may be less effective than usual because the fiscal multiplier decreases. The reason is that the government expenditures can increase the incomes only in the unaffected sectors of the economy, not in the severely affected ones, where at best they can keep only part of the income. Monetary policy, if not constrained by the zero lower bound (which in fact is

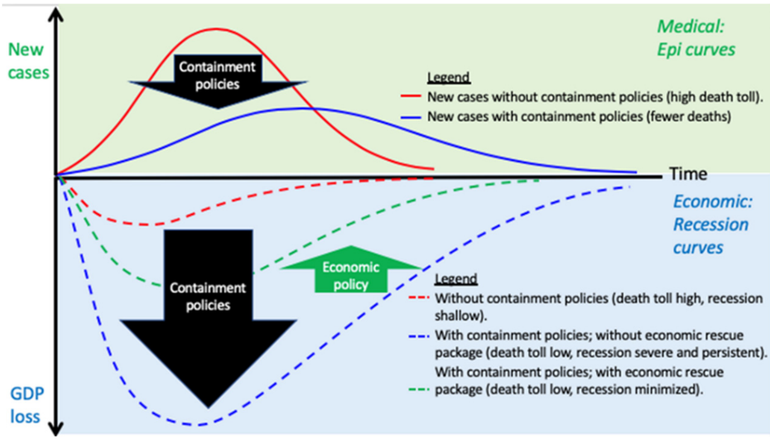
[6] IMF COVID-19 Policy Tracker, https://www.imf.org/en/Topics/imf-and-covid19/Policy-Responses-to-COVID-19.

observed in almost all developed economies), may have better results if directed towards preventing companies' bankruptcies due to liquidity difficulties. In this sense, the optimal policy is social distancing and a broad social program with the functions of insurance payments to the most affected sectors of the economy.

2.2. Socio-economic nature of COVID-19 problem

So far, the only measures to control COVID-19 relate to the so-called "social isolation", expressed in severe limitations in people's daily lives. The restrictions lead to fewer people being infected, which prevents an excessive pressure on the health system. From an epidemiological point of view, in the absence of a vaccine, it is necessary for a large part of the population to acquire immunity in order for the epidemic to be permanently controlled. The alternative is to look for some cyclicality in the severity of the restrictions, alternating cycles of tightening and loosening the measures until achieving public immunity (Figure 6). At this stage, there is not enough information on how long these cycles will last.

Figure 6. Spread of the infection and the effects on economic activity

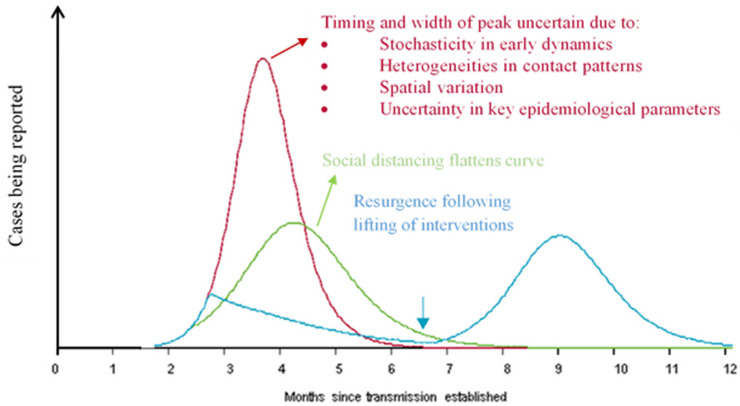


Source: Baldwin, 2020.

In the economy, this requires the closure of a number of manufacturing plants, shops, hotels, restaurants, etc., which inevitably leads to a deepening economic crisis. Moreover, the longer and more limiting the restrictive measures are, the longer and deeper the economic recession will be. Figure 7 gives an overview of the processes running now.

Obviously, the government faces the difficult dilemma of choosing between a "healthy population" and a "healthy economy". As far as the preservation of maximum number of human lives is an indisputable priority, the issue practically is reduced to the size, structure and duration of taking adequate economic and social measures to minimize the economic damages, provided that everything possible is done to maximally preserve the population.

Figure 7. Possible reaction models



A baseline simulation with case isolation only (red); a simulation with social distancing in place throughout the epidemic, flattening the curve (green), and a simulation with more elective social distancing in place for a limited period only, typically followed by a resurgent epidemic when social distancing is halted (blue). These are not quantitative predictions but robust qualitative illustrations for a range of model choices.
Source: Atkeson, March 2020.

The unique in the current situation is that ***the forthcoming recession is based on the vulnerability of the human factor***. From this point of view, it can be assumed that in terms of the aggregate supply, the labor-intensive sectors of the economy and those providing services that require direct contact between the servicing and serviced party, including in transnational terms, are more affected (e.g. national and international tourism; transport; trade; healthcare; culture and the arts; sports). Sectors with a high degree of automation, robotization and digitalization, have the capacity to be less affected from this point of view, but in many of them the activity is vulnerable to disruption of the relevant production and technological chain (for example in the automotive industry).

Other sectors can quickly readjust and will not feel pressure in terms of supply (some services; administration and governance; education). However, there are activities and productions that will benefit (pharmacy; some sectors of the food industry; production and trade of essential goods; production of protective clothing and protective equipment). However, all this applies only to supply, and only to the first stage of the recession. Many of the upcoming problems will be related not only to supply but also to demand. The mechanism is quite clear – more significant reduction in labor force from the most vulnerable sectors will lead to lasting suppression of the aggregate demand with a likely secondary effect on the supply and a subsequent pressure to further reduce an even larger share of the labor force. Thus, the primary effects of the reduced demand are reproduced and enhanced in the supply process, and in this case the openness of the Bulgarian economy is an additional aggravating factor. Without an adequate intervention by the state, as well as the employers and the trade unions, a “vicious circle” emerges. Breaking out of it becomes more difficult the longer the measures are postponed, and the recession can quickly turn into a depression.

3. Real Sector

3.1. GDP dynamics

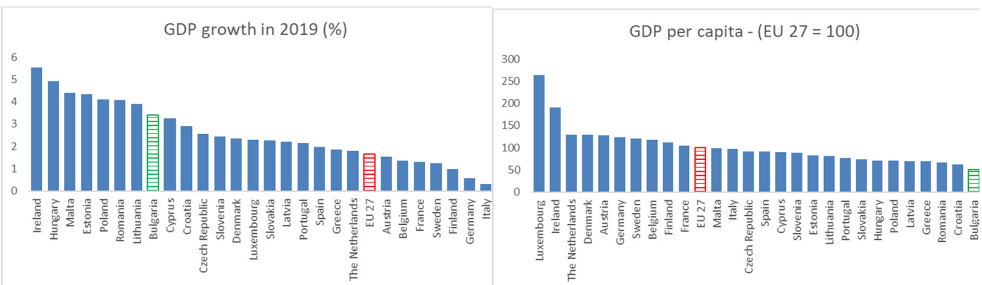
Facts

- GDP in 2019 increased in real terms by 3.4% compared to 2018 and reached a nominal value of 118.7 billion BGN.
- Recalculated in EUR, GDP was 60.7 billion EUR, and 8678 EUR per capita (7829 EUR in 2018), which was about 27% of the EU-27 average.[7]
- Gross value added was 102.3 billion BGN, and the real value of the indicator was 3% higher than in 2018.
- Industrial sector created 25.9% of the added value of the economy, which was an increase of 0.1 p.p. compared to 2018. Service sector created 70.4%, and the agricultural sector – 3.7% of the added value, compared to 70.3 and 3.9% in 2018, respectively.

Analysis

According to preliminary NSI data, economic growth rate of GDP slightly accelerated from 3.1% in 2018 to 3.4% in 2019. Growth remained above the average for the EU countries (Figure 8) and was generally comparable to the rates achieved by the new Member States. Despite the generally positive economic perspectives, maintaining the current economic growth rate means that convergence to the average income per capita in the EU remains far in the future (Figure 9).

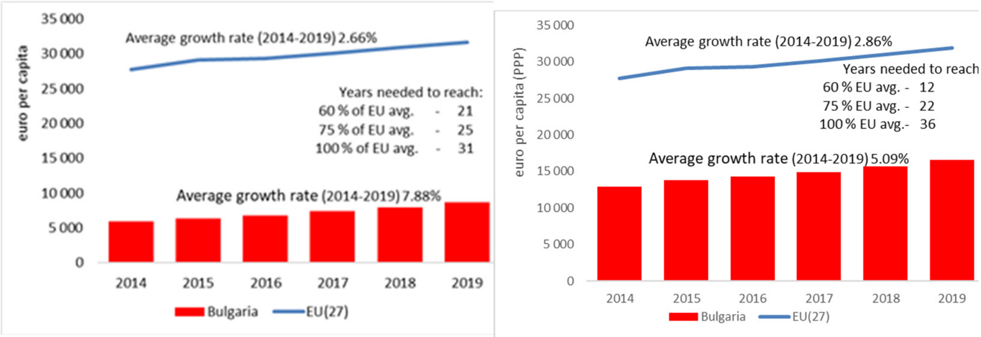
Figure 8. GDP growth and GDP per capita



Source: NSI, Eurostat.

[7] If PPP (Purchasing Power Parity) methodology was used, GDP per capita in 2019 was around 16 600 EUR, which was slightly more than 52% of the EU-27 average.

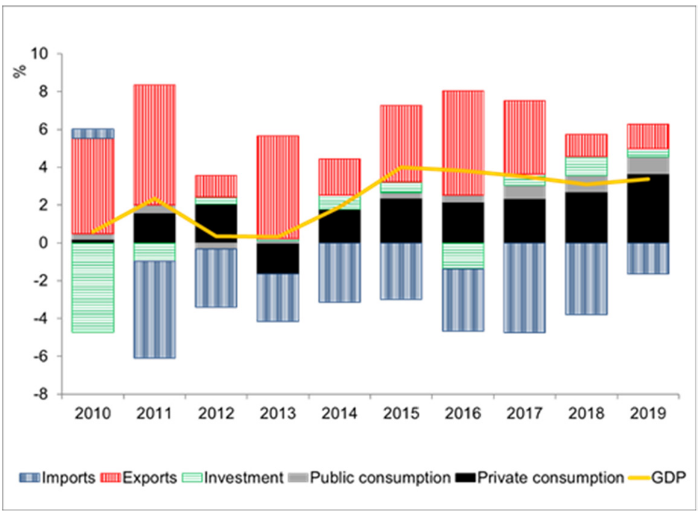
Figure 9. Convergence of GDP per capita



Source: NSI, Eurostat.

Increased wages and improved household expectations had a positive impact on the private consumption – household consumption increased by 5.8%, supported by continuing income growth, increased employment and increased consumer trust (Figure 10). The consumption growth in the public sector was also bigger than in previous years, reflecting mainly the increased expenditures for personnel and utilities. However, investments slowed down – gross fixed capital formation increased by 2.2%, while growth in 2018 was 5.4%. Net export, which until a few years ago was the main driver of growth, now had a negative contribution to the overall growth. This was due to the slowdown in export growth as well as the stronger domestic demand, which affected the import volumes, including the ones of consumer goods. The trend of the recent years to close the gap between actual and potential GDP strengthened.

Figure 10. Contributions of final use components to economic growth

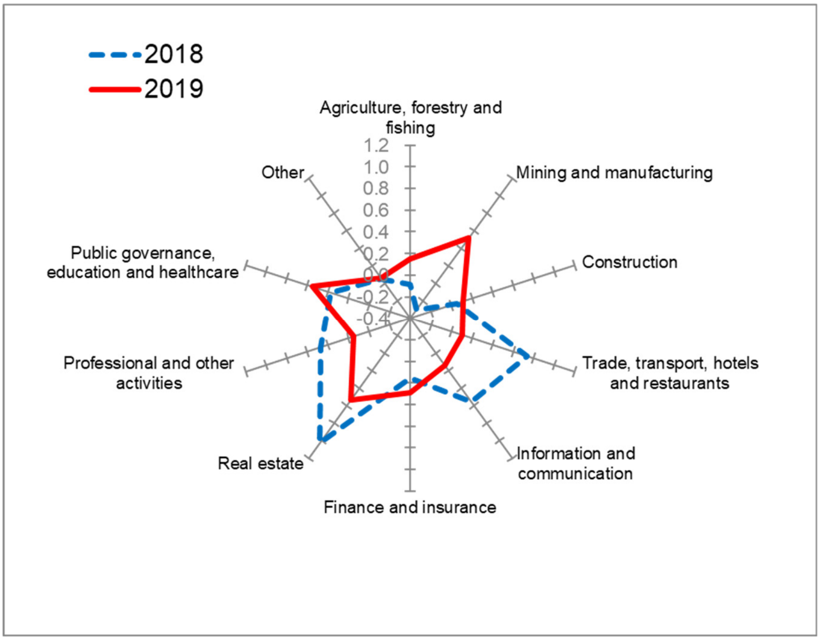


Source: NSI.

Despite the relatively good results in 2019, economic growth still cannot be defined as inclusive and has no tangible impact on poverty reduction and economic and social inequalities. Poverty and income inequality levels are highest in the EU.

By economic sectors, the growth in 2019 can be defined as more sustainable compared to the previous year (Figure 11), as the industry sector had the highest contribution. At the same time, it is disappointing that structure defining sectors, like Trade, transport, hotels and restaurants, and Information and telecommunications, reduced their contribution to the overall growth.

Figure 11. Contributions to economic growth (p.p.) by economic sectors

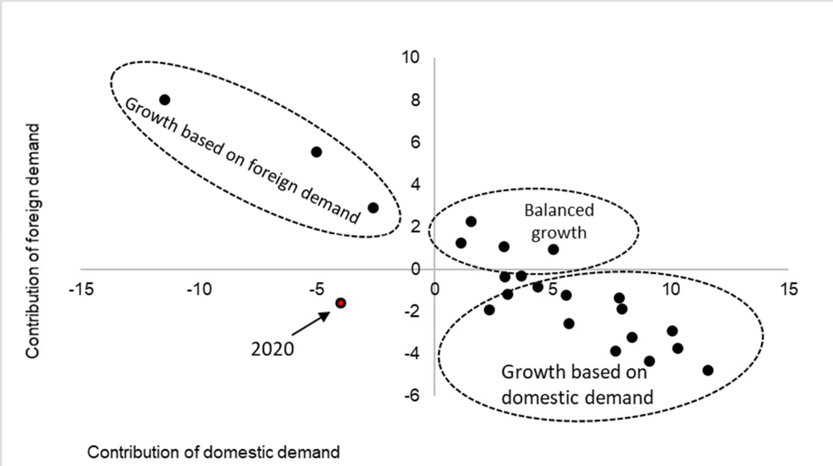


Source: NSI, author's calculations.

3.2. Internal and external growth factors

Data since 2000 unambiguously show that domestic consumption is increasingly the main driver of growth (Figure 12). In the last few years, this has been largely due to the growing trust of both consumers and producers. The several good tourist seasons and the generally favorable financial environment act in the same direction.

Figure 12. Contributions of domestic and foreign demand to economic growth (2000-2020)



Source: NSI, author's calculations.

The forming trend of predominance of the internal growth factors cannot be assessed one-sidedly. As a small and open economy, Bulgaria is highly dependent on the external sector, which is traditionally considered a main driver of economic growth. This has been repeatedly stated in a number of government programs and in various scientific publications, including in previous editions of the Annual Report of ERI-BAS. There are many studies that find a high correlation between export growth and economic growth. According to the main theoretical postulates, the advantages of the export-oriented growth models are due to the following reasons:

- The internal costs of providing a unit of foreign currency are lower than the costs of saving the same unit.
- Overcoming the limitations with the economies of scale.
- Exposing the local producers to external competition leads (in the general case) to increased efficiency and reduced costs.
- The significant increase in FDI in export-oriented economies is empirically proven.
- There are also empirical evidences regarding opportunities for job creation, which are higher with higher export volumes.

At the same time, the growth models prioritizing export have also serious weaknesses, the most important of which are:

- Dependence on the external demand of the foreign trade partners and increase of the volatility of the growth rates.

- Slowdown of the pace of development of the domestic market.
- More fierce competition between developing countries and an emerging desire for export displacement of the competitors, which ultimately leads to deteriorating trading conditions for all exporters.
- Deepening global imbalances and negative impact on the financial stability.
- The more countries apply this model, the lower is its efficiency, due to the constraints of the global demand.

Precisely because of these weaknesses, in the recent years the arguments are stronger in favor of the claim that export-oriented growth models have been exhausted and should be replaced by models based on the development of domestic demand. One of the main arguments is that China entering the international markets has significantly changed the "rules of the game". The reasons for this are rooted in the hierarchical structure of this type of models, suggesting the replacement of old players with new ones that offer lower costs per production unit. The supply of cheap, unpretentious and relatively well-trained labor in China is practically unlimited, which puts other developing countries (both in the region and globally) at a disadvantage. There already are a number of examples, mainly in the field of the light industry, particularly knitwear. They prove the hypothesis of the existence of export displacement (Palley, 2000).

Despite the weaknesses of the export-oriented growth, there is no doubt that developing countries (at least at some stage of their development) cannot do without the development of export industries, as long as they provide the necessary currency. The question what is the context of considering the promotion of exports. From this point of view, international trade should be subordinated to the idea of economic development, and not seek comparative advantages in different activities and industries at any cost, as this often leads to negative effects in the long term. In order to be successful, models based on domestic demand should be created according to the following principles:

- Optimization of the income distribution in the economy.
- Good governance (competent and non-corrupt).
- Financial stability.
- Provision of reasonable and affordable external financing.

These principles clearly draw the limits of applicability of the models based on the development of the domestic consumption, imposing significantly higher standards. In other words, it is not only about desires and choices, but also about possibilities. It is hardly a coincidence that the majority of the highly industrialized countries rely much more on the internal factors of economic growth than on the foreign demand.

Clarifying the theoretical concepts on the possible types of economic growth and the constraints they impose is important from the point of view of the formation of a specific economic policy. The question is whether Bulgaria can now generate high enough growth based on internal factors so that there is no need to rely on the whims of the foreign markets? Moreover, a possible positive answer to this question requires an answer to another question – what should be the role of the government in pursuing such a policy?

As convincing as the arguments of the opponents of the export-led growth may sound, the bitter truth is that the income level in Bulgaria remains low. The restrictions imposed by the currency board and the impossibility (at least in the short term) of pursuing an expansionary fiscal policy are additional factors in support of the conclusion that in the foreseeable future Bulgaria should rely mostly on exports in order to ensure economic growth based on economies of scale. From the point of view of the restrictions imposed by the balance of payments, the message is clear – economic growth acceleration is possible only by increasing the attractiveness of the Bulgarian exports and/or reducing the elasticity of the imports (in best case a combination of both). Otherwise, i.e. if production capacity grows faster than domestic demand (due to the constraints imposed by the balance of payments), unemployment will rise, which will further shrink consumption. In other words, it is not just about ensuring economic growth through more exports, but through the export of the “right” goods and services, i.e. those with elastic demand. In short, the forming trend towards the predominance of the internal factors can be defined rather as unfavorable. Higher growth rates, that provide the so-called catch-up development, are possible only if the contribution of the external sector to the growth rates is positive and exceeds those of the domestic demand.

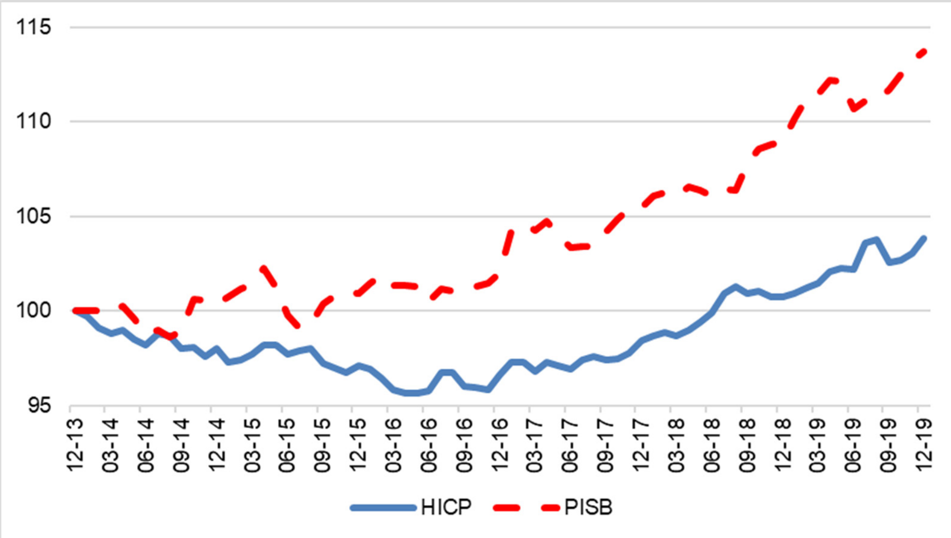
3.3. Inflation dynamics

For the third consecutive year, inflation (measured by the harmonized index) accelerated and at the end of 2019 reached 3.1% (2.3% in the previous year). Unlike previous years, price dynamics was more even and there was only one month (September), during which prices fell.

After three consecutive years of deflation, consumer prices began to rise in 2017, and the trend continued in 2018, with more noticeable increase in prices from the so-called “small consumer basket”, to which the population is more sensitive (Figure 13). Main driving factors for the inflation dynamics are the prices of food products (6.5% increase), especially clear in the prices of meat and its products (16.3% increase) and fruits (11.4% increase). Price dynamics in food products can be explained by the poor harvest in 2018 and the spread of the African swine fever, which appeared in April 2019.

The dynamics of ***service*** prices was affected by the higher energy prices, as well as the increased demand, especially in hotel services and public catering, where inflation reached 5.2% at the end of the year.

Figure 13. Inflation indices[8], December 2013 = 100



Source: NSI.

Despite the increasing inflationary pressure, the analysis shows that at this stage there are no grounds for concern. Core inflation increases but remains low. Moreover, it is low compared to all new EU member states. The increased values in the previous year relate to both the increased domestic demand and the positive dynamics of a large part of the imported goods. There are no serious grounds for seeking a direct and strong relation between the increase of the average wage and the price dynamics. The latter reflects rather the closing output gap between potential and real GDP. Other macroeconomic indicators also point to this conclusion, like increasing employment, increased production powers utilization, as well as the results of business monitorings, indicating an emerging labor force shortage.

Concerning the future expectations, there are grounds to conclude that the trend of increase of the consumer prices will be interrupted this year, but will recover in the medium term. These conclusions are mostly in view of the expected decrease of the economic activity caused by the epidemiological situation, as well as in view of the current dynamics and the expectations for the international commodity prices.

[8] Harmonized index of consumer prices (HICP), Price index of a small basket (PISB).

4. Fiscal Policy

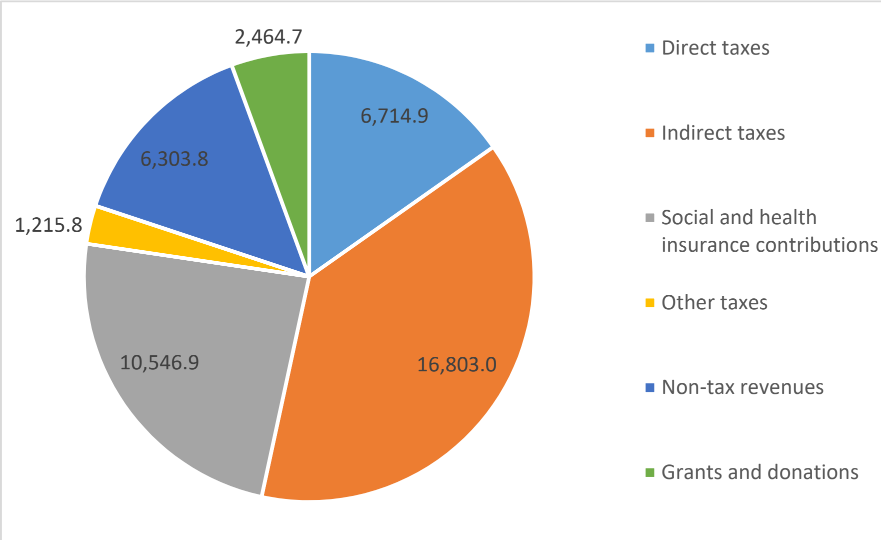
4.1. Budget revenues and tax policy

As a result of the upward economic dynamics in 2019, ***budget revenues and grants*** continued the trend of increase and amounted to 37.1% of GDP.[9] Tax revenues increased by 9.4% during the year, while maintaining the trend of recent years to almost 30% of GDP. Non-tax revenues increased by 19% and amounted to 5.3% of GDP, which was mainly due to the high revenues from the Electricity System Security Fund in the first half of the year and the collected fees for the use of the national road network. The delayed absorption of the amounts on European funds and programs from the last programming period led to a lower growth rate of revenues from state budget grants, which nevertheless increased by 351.7 million BGN on an annual basis and amounted to 2.1% of GDP. Revenues from enterprises included in the sector “General government” also increased in 2019, with largest contributions from Bulgarian Deposit Insurance Fund and State Consolidation Company.

The most significant increase in tax revenues in 2019 was the social and health insurance contributions (11.5%) (Figure 14). This was due to the increase of the minimum wage during the year and the subsequent increase of the minimum insurance thresholds and the minimum insurance incomes of the self-insured persons, as well as taking into account the actualization of the wages in the budget sector. ***VAT revenues registered an annual increase of 10.2%, which is a record growth*** of 1.022 billion BGN on an annual basis due to the 8.6% increase in the individual consumption, which was the highest value since 2008 in terms of change rates. In the structure of tax revenues, the two components – social and health insurance contributions and VAT revenues – continued to maintain their dominant share and formed a total of 61.3% of all tax revenues, with a 19% share of direct taxes, revenues of which increased by 582.4 million BGN on an annual basis. This trend was persistent for the Bulgarian tax system in the last years and ranked Bulgaria on 26th place in the EU in terms of direct tax revenues as a share of GDP (according to Eurostat for 2018) with a value of 5.8%, followed only by Lithuania (5.7%) and Romania (4.9%). In terms of revenues from indirect taxes as a share of GDP, Bulgaria ranked on 9th place in the EU (15.2%) and at a similar level with Portugal.

[9] The forecast of ERI-BAS in the Annual Report 2019 was for 36.8% of GDP.

Figure 14. Budget revenue structure in 2019 (million BGN)

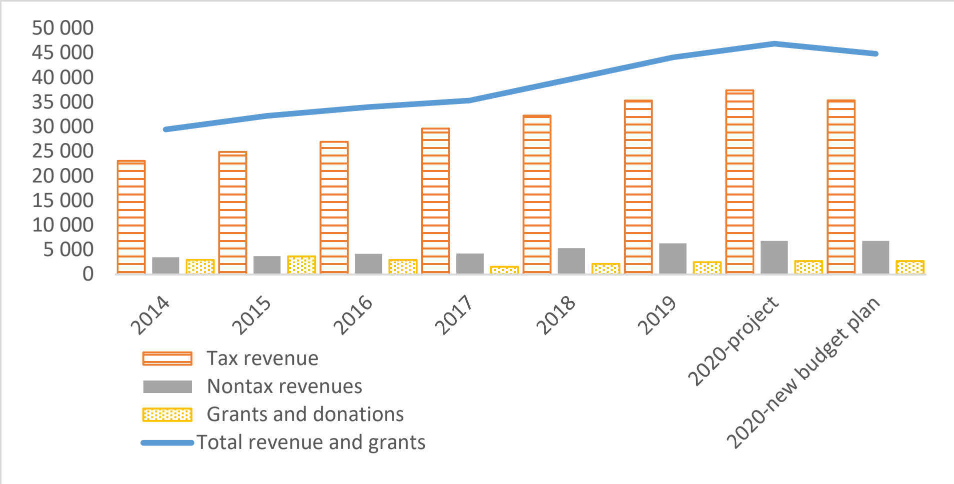


Source: Ministry of Finance.

At a governmental level, the low tax rate on direct taxes is considered a prerequisite for increasing the national competitiveness[10] and attracting foreign investors[11], as well as a way to "lighten up" the economy. However, the results in this direction are often the subject of discussions. In the last years, the low degree of reinvestment of the profits of Bulgarian enterprises and the high share of repatriated profits of foreign enterprises from the country (in 2019 the investment income exported from the country was 4.8% of GDP) are becoming a trend. The low tax rate on direct taxes creates also a strong cyclical dependence of the budget revenues on the consumption and the imports in the country, which are subject to indirect taxation. It also ***limits the government's ability to pursue counter-cyclical policies***. This conclusion was outlined also by the already made revision of the state budget in early April 2020, which set a decline of 1.4 billion BGN in revenues from indirect taxes as a result of the negative economic effects of the pandemic in 2020. The expected by the government lower amount of tax revenues by 2.4 billion BGN is largely due to the projected decrease of VAT revenues by 1.1 billion BGN (Figure 15).

[10] A study by Beleva (2019) outlines the stable macroeconomic environment and low tax rates as a main factor for stimulating the investment activity in Bulgaria.
[11] Tassev and Nestorov (2017) study the impact of foreign trade relations on economic growth, with a focus on export enterprises activities.

Figure 15. Consolidated budget revenue (million BGN)



Source: Ministry of Finance.

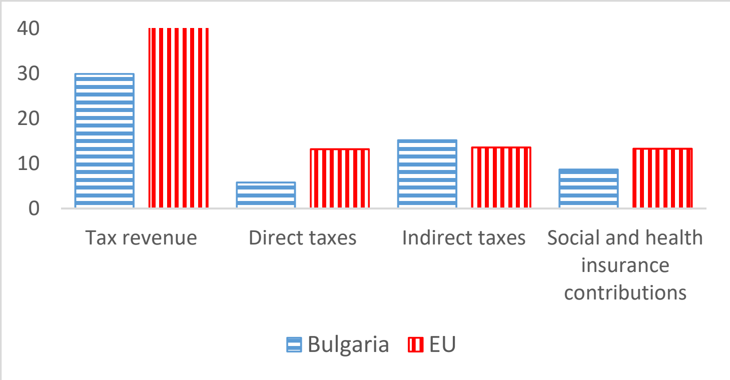
The economic uncertainty caused by the development and the duration of the coronavirus epidemic, as well as the unemployment increase for purely internal regulatory reasons and due to the global supply chains, will inevitably lead to a decrease of the domestic consumption and thus of the VAT revenues, too. The intentions to extend the scope of the differentiated VAT rates for certain sectors would put an additional pressure. This would have also an unfavorable secondary effect from transferring tax liabilities that fall outside the scope of the proposed differentiated rates in an attempt to avoid higher taxation. Revenues from excises are the other significant component of the tax revenues, for which the state budget revision set expectations for a lower amount than planned at the end of last year. A factor in this direction is the decrease of the domestic and international transport as a result of the anti-epidemic measures, as well as the volatility of crude oil prices on the international raw materials markets. In percentage terms, however, the largest decrease is projected in the corporate tax revenues (-11.8% compared to the State Budget Act 2020, adopted at the end of 2019). This reflects the measures taken to postpone the deadlines under the Corporate Income Tax Act until June 30th, 2020, as well as the expected effect of the temporary suspension of the activity of trade venues in the country in the conditions of emergency situation and corporate bankruptcies. The projected revenues from personal income taxes are 284 million BGN less, as a result of the cumulative effect of the considered reasons for decrease of VAT revenues (not taking into account the forthcoming changes in Value Added Tax Act) and from corporate tax, with a set decrease in GDP by 3%.

Bulgaria ranks 26th across the EU in terms of total tax revenues from GDP (29.9%), compared to an average of 40.3% for the EU and 41.7% for the euro area, according to 2018 data. This makes a negative differential of over 10 p.p. In this sense only Romania (27.1%) and Ireland (23%) are ahead of us. The significant difference is again due to the share of the direct taxes in GDP, with 13.2% average for the EU and 13% for the euro area in 2018. Revenues from social and health insurance contributions as a share of GDP are also below the EU average, with a differences of 4.6 p.p. with the EU average and 6.5 p.p. with the euro area. At the same time, Croatia and Bulgaria clearly stand out among the other EU Member States with over 50% of total budget revenues from consumption taxes, which are regressive in terms of income and, regardless of their levels, have the same rate. In comparison, however, according to Eurostat data, ***the VAT rate in Bulgaria is reaching the EU-28 average in 2019 (21.5%) and the euro area average (20.8%)***. A standard rate of 20% VAT applies also in the United Kingdom, Slovakia, Austria, Estonia and France. These countries have also a number of tax concessions and lower tax rates, in some cases even 5% VAT on medicines, for example. At present, in Bulgaria, the exceptions from the 20% VAT rate are related only to 9% VAT on tourism services, not taking into account the zero rate for some specific services with limited social scope, such as international passenger transport and delivery of goods transported outside the EU.

With the amendments to the Value Added Tax Act, adopted on 10.06.2020, by the end of 2021 a differentiated tax rate of 9% VAT will apply on hotel services, delivery of books in physical or electronic form, restaurant and catering services, as well as baby food and some baby goods. The other proposals, mainly related to taxation of medicines, some food products (such as bakery products, for example) and general tourism services, did not get the needed parliamentary support. However, the application of differentiated VAT rates should not be seen only as an anti-crisis measure and isolated from the overall redistributive role of the government, both in terms of revenues and expenditures. ***Seeking a more balanced taxation with indirect taxes is reasonable, but granting tax preferences to sectors, which are not structure-defining for the economy and do not have the potential to drive the economic development, creates preconditions and demands for a complete reorganization of the tax system. If it is done under the pressure of economic decline and global recession, then it is not an appropriate solution in the medium term.*** Moreover, remains the question of the priority and the desired social effect of the changes in the taxation in the country, in which the lack of differentiation of the taxes for essential goods and medicines remains difficult to understand and explain. Thus, basing the tax system on indirect tax revenues with proportional taxation of different income groups in the society is an additional factor for increasing the income inequality, which is the highest in the EU with 8.1 times difference in 2019 between the incomes of 20% of the population with the highest and lowest incomes (the so-called S80/S20 ratio).

At the same time, the sustainable keeping of the standard rate of 20% VAT in various phases of the economic cycle has so far given the impression of a strategy adopted by the government ***to base the fiscal stability on the indirect taxation***. Such a strategy is in line with the European practice and does not show clear indications for promoting catching-up economic development, which is often outlined as an argument for keeping a low proportional tax in the country. To a certain extent, the comparison with Ireland and Romania, which in the EU also have a lower share of direct tax revenues from GDP, is indicative of the different rates of economic development. For the period 2007-2018 Bulgaria marks 10 p.p. increase of GDP per capita on purchasing power parity, while Romania – 22 p.p. and Ireland – 41 p.p.

Figure 16. Budget revenues as a percentage of GDP in Bulgaria and EU-28 in 2018



Source: Eurostat.

Such a disproportion, in addition to the impression of low tax rates in the country, is indicative also of the collection of tax revenues and the size of the informal economy, which according to international estimates is one of the highest in the EU.[12] In this regard, the planned by the government ***measures to increase the revenue collection***[13], which partially began to be implemented in 2019, include:

Concerning direct taxes:

- Maintaining the direct tax rates and the amount of the maximum insurance income for all insured persons at 3000 BGN and elimination of certain tax concessions for the corporate income taxation and for the use of a main residence.
- Setting a property and environmental component in determining the vehicle tax for cars and trucks with a technically allowed maximum weight not exceeding 3.5 tons.
- Electronic submission of declarations under the Personal Income Tax Act (PITA) and changes in the procedure for declaring and paying corporate tax.
- Change in the regime of taxation of the acquired taxable monetary and material prizes from games, competitions and contests.

Concerning indirect taxes:

- Prolonging the application term of the mechanism for VAT reverse charge on supplies of grain and technical crops and VAT postponed charge of an importer upon import of goods on the territory of the country.

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[12] According to IMF calculations, by 2016 the share of the grey economy in Bulgaria amounts to 45% of GDP (Kelmanson, Kirabaeva, Medina, Mircheva, Weiss, 2019).
[13] Ministry of Finance, 2018; 2019.

- Expanding the scope of fiscal control over the movement of goods with high fiscal risk (fruits, vegetables, meat and its products, milk, sugar, flour, fuels, etc.).

- Precising the methodology for determining the tax base for excise taxation and maintaining the excise rates.

- Changes to the reduction of the administrative burden on citizens and businesses in the Value Added Tax Act.

In essence, the proposed measures to improve tax collection focus on the indirect taxes and most of them have a 2022 horizon. ***Given the complicated economic situation concerning the coronavirus, there is a risk that they will not be implemented to a high degree.*** This is observed mainly in the several postponed changes in Regulation № H-18[14], which aim to increase the control over registration and report of trade turnover, and were to enter into force in 2019. The fiscal effect of these measures was estimated at 500 million BGN.[15] The other discretionary measure with a significant effect on the revenue side of the budget is the introduction of a TOLL fee and an electronic vignette, which launching was also postponed and a subject of renegotiation in 2019. According to the Ministry of Finance, the medium-term budgetary effect until 2022 was estimated at 557 million BGN. ***The implementation of a multidirectional revenue policy*** creates an additional negative effect regarding the expectations of the economic subjects in the country. With the already outlined cyclical dependence of the tax revenues on consumption, exports and imports, it ***poses risks to the fiscal stability with strong centralization of the collection and management of the government revenues*** – local tax revenues are only 0.9% of GDP, with an average of 4% for the EU and the euro area.

4.2. Budget expenditures and expenditure policy

In 2019, the double-digit growth of government expenditures (14.4%), which amounted to 38.2% of GDP, remained.[16] This dynamics determined the contribution of government consumption to the economic growth in 2019 of 0.84 p.p., which is the highest registered value since 2006 and shows the direct effect of the use of the fiscal policy instruments at macro level. ***Capital expenditures had the highest contribution to the overall growth of the budget expenditures, due to one-off effects during the year***, as well as the expenditures for personnel and social security, assistance and care.

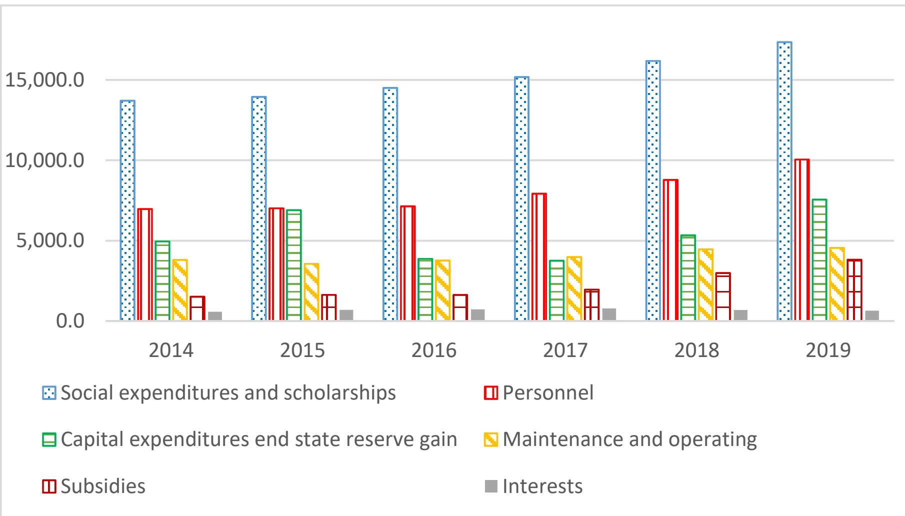
The increase in capital expenditures to 6.4% of GDP in 2019 was due to the higher defense and security expenditures from the purchase of a new type of fighter jet worth approximately 2.1 billion BGN in August 2019. The increased payments under European funds and programs, in connection with the end of the programming period 2014-2020,

[14] Regulation № H-18 of 13.12.2006 on registration and reporting through fiscal devices of sales in trade venues, the requirements to the software for their management and requirements to the persons who make sales through an e-shop.
[15] https://www.minfin.bg/bg/news/10949.
[16] The forecast of ERI-BAS in 2019 was for 37.3%, without taking into account the one-off effect of increasing the capital expenditures in the field of defense.

were an additional factor for the increasing capital expenditures. To a large extent, the government's capital expenditures could be considered a buffer for regulating the state budget, given the practice of their increase at the end of the year, and a channel for influencing the investment activity in the country at about 20% average value of the gross fixed capital formation in the recent years. In 2019, their dependence on geopolitical decisions is also demonstrated when setting a goal of defense expenditures of 2% in 2024. So far the more significant fluctuations were due to the payment cycle under European funds and programs, both in 2014 and 2015.

On an annual basis, the expenditures for wages and personnel in the budget sector increased by 14.3%, which was due to the increase of the funds for wages and social security contributions by 10% of all employed in the budget sector, the increase of wages for pedagogical personnel by 20%, and the additional increase of wages of the employed in the judiciary and the system of the Ministry of Interior, as well as of the persons at elected positions. Expenditures on social security, assistance and cares continued to increase in absolute terms during the year, although as a share of GDP the tendency to decrease after 2015 (15.6% in 2015 compared to 14.6% in 2019) remained. Their increase was due to the pensions actualization during the year, including an increase in the amount of the minimum pension for length of service and old age, the social pension for old-age, and the maximum amount of pensions in the country, as well as the higher health insurance payments and the payments to people with disabilities. Another component of the budget expenditures, which continued to grow steadily in the recent years, was the subsidies to the non-financial enterprises and the non-profit organizations. Their amount in 2019 was 3.6 billion BGN, mainly due to the changed mechanism of financing the Electricity System Security Fund with the Energy Act in 2018.

Figure 17. Consolidated total expenditure (million BGN)



Source: Ministry of Finance.

The main parameters of the government's expenditure policy in the recent years remain in the 2020 state budget too, with initially planned further increase of wages in the public sector, increase of defense and security expenditures, and increase of the funds for health and education. The revision of the state budget in April 2020 set only an increase of the interest expenditures by 70 million BGN and an additional transfer to the State Social Security (SSS) of 1.43 billion BGN. Thus, government shows intentions to carry out a stabilization macroeconomic program without reducing already planned current or capital expenditures and with a focus mainly on the activities of enterprises. The increase of the interest expenditures is justified in view of the foreseen higher maximum amount of government debt of 10 billion BGN. Higher government transfers for social security reflect the measures taken to preserve jobs in the country under the so-called "60/40" measure and are a result of the expectations for increasing unemployment in the conditions of a health epidemic. From a social point of view, however, such a fiscal policy of refraining from increase of the current transfers, compensations and household benefits, may be considered insufficient. However, having in mind the low fiscal multipliers[17] and the open nature of the Bulgarian economy, and last but not least the uncertainty about the development of the epidemic, it has its own economic logics. But the social expenditures play the role of automatic stabilizers with a direct effect on the household consumption in the country. As the experience of the 2008 financial and economic crisis shows, despite the initial decline in 2009, final consumer expenditures demonstrated certain sustainability since 2010 and can be considered a buffer for maintaining the dynamics of the domestic demand at different phases of the economic cycle. To some extent, this trend would justify the grounding of the revenue side of the budget on indirect taxation, but at the same time it assigns a certain specific role to the fiscal policy in terms of increasing the social expenditures for maintaining the private consumption. ***The government's social policy should really be considered as a factor in maintaining the fiscal stability with a counter-cyclical short-term horizon, and not as a risk to the sustainability of the public finances***.

A comparison with the average European levels of budget expenditures shows that in Bulgaria the government spends approximately 10 p.p. less as a share of GDP. In 2018, government expenditures are 36.5% of GDP, compared to an average of 45.8% in the EU and 47% in the euro area, according to the latest Eurostat data. This difference is compatible with the differences in the revenue side of the budget and is also observed in the other Member States with some of the lowest levels of taxes as a percentage of GDP – Lithuania and Romania. At the same time, the low redistributive role of the government in Bulgarian economy is not only a neoliberal philosophy that follows the stimulating refrain from active state intervention, but is also normatively established in the Public Finance Act (PFA). According to Art. 28.1 of PFA, the maximum amount of expenditures under the consolidated fiscal program cannot exceed 40% of GDP, as the fiscal regulations set at national level complement the Stability and Growth Pact, which is a set of norms for coordinating the national fiscal policies within the EU.

Though the additional restrictions to the discretionary government actions are motivated by the preservation of the fiscal and monetary stability in the country under a Currency

[17] Analysis of the premises for the low fiscal multipliers in Bulgaria, in terms of external influences, cyclical effect, money supply effect and velocity of money circulation, is made by Ignatov (2016).

Board Arrangements[18], they essentially reflect the refrain from active macroeconomic policy, which is considered rather a risk factor for the economic development. This is a direct reflection of the mission[19] of the Ministry of Finance, giving priority to the fiscal stability and then to creating conditions for economic growth, ignoring the direct relation between the two, which economic logics outlines in reverse order. In view of Bulgaria's desire to join the euro area and the insufficient results so far in terms of the real economic convergence, which permanently rank us last in the EU in terms of GDP per capita, the fiscal policy should not be limited to the administration of the budgetary revenues and expenditures, but to be considered a macroeconomic instrument to promote the convergence to the EU average levels. The more so as "all other measures and policies are also financed through the state budget, so it can be assumed that they are subordinate to the fiscal policy" (Ganev, 2015). The accumulation of fiscal buffers is an important condition for the overall macroeconomic stability in the country, given the specificities of the Currency Board Arrangements, and the fact that the entire burden of stabilizing the economy in the event of a crisis is carried by the government. However, this should not be an excuse for pursuing a fiscal policy that relies mainly on the action of the automatic stabilizers[20] at low income levels compared to the European average ones and limited results in the catching-up development.

Guidelines for changing the focus of the implemented fiscal policy are the avoidance of expenditure policies implemented under the influence of different political conditions, as well as the linking of the budget expenditures with specific indicators for achieving efficiency. The challenges in this direction are outlined by the structure of the budget expenditures in a comparative European plan.

It is indicative that among all EU-28 Member States in 2018, Bulgaria ranks on 1st place in terms of share of GDP for expenditures for public order and security (2.5% compared to an average of 1.7% in the EU and the euro area), on 26th place in terms of share of public resources for education (3.5% compared to an average of 4.7% in the EU and 4.5% in the euro area), and on 25th place in terms of expenditures for social protection (12% of GDP compared to an average of 18.6% in the EU and 19.6% in euro area) (Figure 18). Despite the increase of the budget expenditures in the last two directions in 2019, and planned for 2020, the government's expenditure policy should not be oriented only to the provision of additional funds, but to an overall vision for the development of the education sector and the social area. Now, the adopted strategy for increasing the wages in the budget sector, with a clear predominance of the educational levels up to secondary education, should be accompanied by an analysis of the possibilities for optimizing the activity and increasing the total efficiency. Measures to prevent and limit the abuse of social compensations and benefits are particularly urgent and would allow for better use

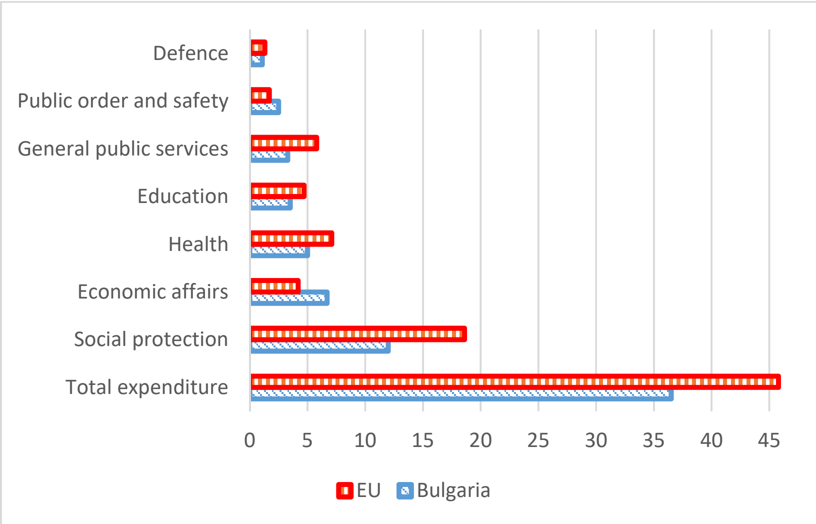
[18] According to some authors, the refrain from expansionary fiscal policy and the restriction of the discretionary government policy, in order to preserve the stability of the adopted exchange rate regime, is the basis of the slow catch up in Bulgaria (Minassian, 2018).

[19] *"The mission of the Ministry of Finance is to maintain sustainable and transparent public finances of the country, assisting the government in establishing an efficient public sector and creating conditions for economic growth."* – https://www.minfin.bg/bg/615.

[20] The effect of automatic stabilizers in the Bulgarian economy, which is particularly intensified in a crisis, is defined as a sustainable feature of the ongoing fiscal policy in the country by Houbenova-Delissivkova (2017).

of the public resources and, last but not least, for increase of the incomes of those who really need them.

Figure 18. Total expenditure as a percentage of GDP in Bulgaria and EU-28 in 2018 (%)



Source: Eurostat.

At the same time, in terms of healthcare expenditures[21], which is also one of the most multidirectionally reformed sectors over the years, and which in the current health crisis becomes a leading one, Bulgaria ranks 24th in the EU as share of GDP in 2018, with 2.1 p.p. difference from the average level in the EU and the euro area (5% of GDP in Bulgaria compared to 7.1% in the EU and the euro area). Thus, in a comparative aspect, we can outline the ***underfunding of public sectors, such as education and healthcare, which compensates for the implementation of structural reforms with a long-term effect, or the inability to achieve significant results from them***, at the expense of significant resources for security and defense under internal or geopolitical pressure. The direct intervention of the government as a market agent, as in the case of the proposal to establish a state-owned oil company with the goal to encourage the competition, is also indicative of the inability through regulatory mechanisms to ensure the functioning of the market mechanism. Thus, linking the parameters of the government's expenditure policy with specific reforms to increase the efficiency of the use of the budget funds in various areas would make it possible for the fiscal policy in the country to be seen not as a budgeting process and a substitute for the corporate activity, but as a macroeconomic policy creating premises for catching-up development.

[21] Rangelova (2016) studies the relation between health status, working capacity and opportunities to increase the retirement age, in order to ease the unfavorable pressure on the sustainability of the public finances.

4.3. Assessment of the fiscal stability – budget balance and government debt

The total budget balance under the consolidated fiscal program in 2019 was -1.1% of GDP. When deducting the one-off capital expenditures for defense and security, a low positive budget balance of 0.8% of GDP would be registered, which is in line with the maintained budget surpluses after 2015. The primary budget deficit for the year was -0.4% of GDP, which also gives an idea of ***very limited discretionary actions of the government in line with the declared policy of fiscal consolidation with upward economic dynamics***.

The assessment of the fiscal stability largely implies the outlining of the cyclical effects on the budget balance. In this regard, we calculate the elasticities of budget revenues and expenditures to the changes in GDP and the cyclical component of the consolidated state budget on the basis of the discrepancy between the structural and the overall budget balance.

The calculation of the structural budget balance is based on the revised methodology of the European Commission from 2012 for assessing the sensitivity of the budget balance to cyclical fluctuations in the economy (Mourre, Isbasoiu, Paternoster, Salto, 2013). The advantages of this approach relate to its relatively easy applicability and unambiguity, which has imposed its widespread use in the framework of the EU economic governance.

The EC methodology for assessing the sensitivity of the budget balance to cyclical fluctuations is based on determining the structural budget balance based on the budget balance elasticity to GDP – ε – and the output gap. The structural budget balance (SB) is calculated by the following formula:

$$SB = \frac{BS}{Y} - \varepsilon\left(\frac{Y - Y^*}{Y^*}\right),$$

where:

$\frac{BS}{Y}$ is the share of the overall budget balance of GDP;

$\frac{Y-Y^*}{Y^*}$ is the output gap.

Coefficient ε is the difference of the following coefficients:

$$\varepsilon = (\eta_R - 1)\frac{TR}{Y} - (\eta_G - 1)\frac{TC}{Y}$$

where:

η_R is the elasticity of total budget revenues (TR) to GDP (Y):

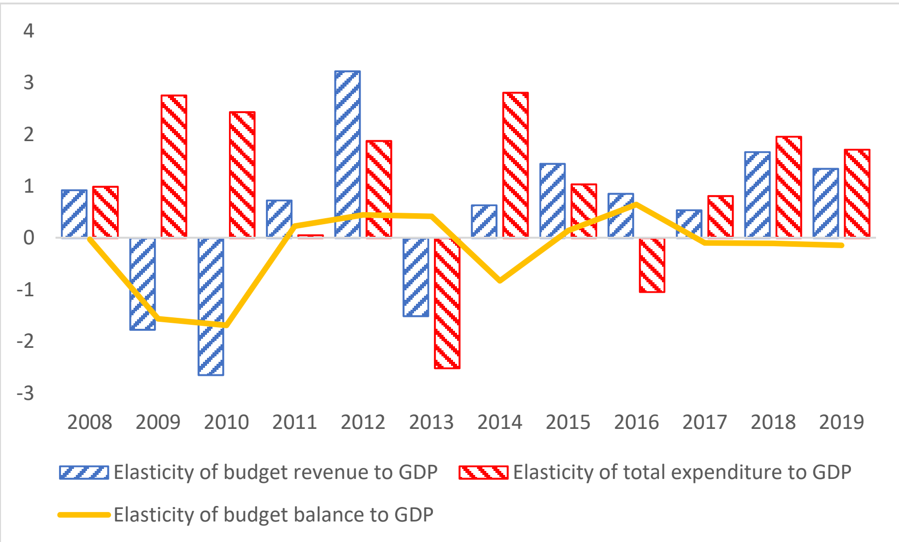
$$\eta_R = \frac{\frac{\Delta TR}{TR}}{\frac{\Delta Y}{Y}}$$

η_G reflects the sensitivity of the total budget expenditures (TC) to GDP:

$$\eta_G = \frac{\frac{\Delta TC}{TC}}{\frac{\Delta Y}{Y}}$$

The obtained data show a strong sensitivity of the budget revenues to GDP in downward economic dynamics and generally high elasticity of the budget expenditures regardless of the economic cycle, which are used as an instrument to balance the state budget with low levels of taxation in the country. This is particularly evident in 2009 and 2010, when the more significant increase of the elasticity of the budget balance to GDP was due to the strengthening of the discretionary element in the management of the budget expenditures under a significant decrease of the budget revenues. After 2017, the government's attempts to balance revenues and expenditures in the state budget are reflected in making their elasticities of GDP even, observing a weaker cyclical effect on the budget balance, regardless of the upward economic development. These results suggest that the capacity of the tax policy in the country has been exhausted when extremely low tax rates have been achieved and the entire burden of maintaining fiscal stability has been transferred to the expenditure policy, which has further limited the instruments for implementing a stabilizing macroeconomic function. This makes the state budget highly vulnerable in an unfavorable economic environment and essentially limits the opportunities for accumulation of fiscal buffers, even in the conditions of upward economic development. Thus, the opportunity to accumulate fiscal resources to ease the unfavorable cyclical effects or shocks from supply and demand (which should be a key postulate in pursuing sensible fiscal policy) is missed.

Figure 19. Elasticity of budget balance to GDP in 2008-2019

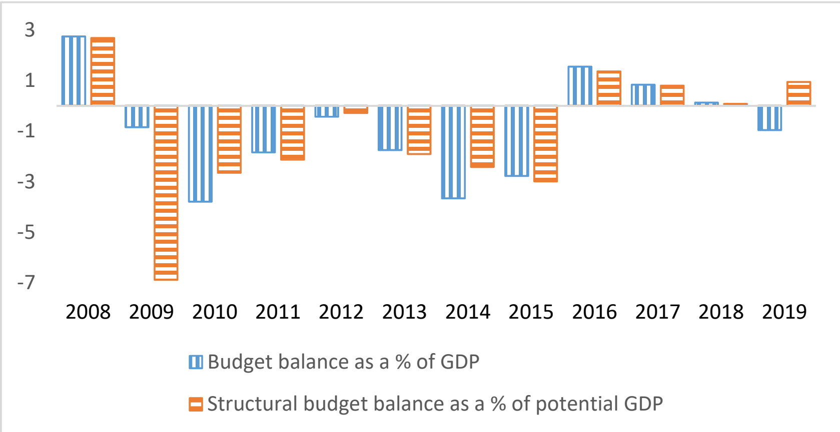


Source: Author's calculations with data from NSI and Ministry of Finance.

Evaluations of the potential GDP are needed in order to calculate the structural budget balance. We do them with a statistical method based on the Hodrick-Prescott filter.

Evaluations of the structural budget balance (Figure 20) demonstrate the multidirectional efforts and results of the fiscal consolidation based on the public expenditure policies. This is especially evident in 2009, when the cyclically determined decline in the revenues was initially combined with unchanged expenditure policy, and subsequently in 2010 – with a double growth rate of expenditures compared to the decline in the budget revenues with almost zero economic growth (0.6% after the economic decrease of 3.4% in 2009). In 2016, economic growth of 3.8% was achieved, which was the highest registered in the period since 2008 and was an argument for the government to reduce its expenditures by 6.3% and to conduct a fiscal consolidation, reflected in a budget surplus of 1.5% of GDP. Since 2017, however, there was a permanently higher growth of the budget expenditures compared to the growth of the budget revenues, which gradually led to a reduction in the difference between the overall budget balance and the structural one and their discrepancy of 2 p.p. in 2019. Such dynamics of the budget indicators is indicative of ***careful behavior of the government at the beginning in economic declines, as observed in the current coronavirus epidemic, followed by fiscal expansion and low reactivity of the fiscal consolidation in a favorable economic environment***.

Figure 20. Budget balance as a percentage of GDP in 2008-2019



Source: Author's calculations with data from NSI and Ministry of Finance.

The missed opportunities to accumulate significant fiscal buffers through a higher redistributive role of the state in the years of upward economic development turns to be a main risk to maintaining the fiscal stability in 2020. With the projected decline in revenues under the influence of exogenous factors related to the health epidemic, maintaining the planned budget expenditures at the end of 2019 and increasing the interest expenditures and the transfers provided under the State Social Security, the expected budget balance for 2020 is negative in the amount of 3.45 billion BGN. Compared to the same period of 2019, according to Ministry of Finance data, as of April 2020, budget revenues have decreased nominally by 552.9 million BGN, with increasing revenues from grants and donations under European funds and programs. The expenditures under the consolidated fiscal program are 515.3 million BGN more on an annual basis, mainly due to the basic effect of the increase of the social expenditures and the higher amount of maintenance expenditures, while the additional funds in the healthcare system related to the epidemiological situation are covered by restructuring the budgets of the primary expenditure units. The positive budget balance of 1.63 billion BGN as of April 2020 is an indicator of the relative preservation of the country's fiscal stability, which, in addition to the presence of lags in their manifestation, again emphasizes the significant role of the uncertainty regarding the economic effects of the pandemic and is an argument for a more cautious government policy, similar to 2009, following which cannot be unnoticed.

As of April 2020, the fiscal reserve in the country is 11 billion BGN. As of December 31st, 2019, the consolidated debt of the "General government" sector amounts to 19.8%. Bulgaria continues to be one of the countries in the EU with a consistently lowest government debt, which creates an opportunity for fiscal support of the real sector, if necessary. The low values of government debt in the country essentially play the role of a fiscal buffer, with the government preferring otherwise favorable external borrowing instead of accumulating own resources based on tax revenues. This behavior depends on the creation of conditions in the country for accelerated catching-up development, which in essence is extremely slow. The result of such policy is the transfer of tax burden to the next generations, and under the tendencies for lasting decrease of the population in the country it creates long-term macroeconomic risks. The preferences for external government financing are supported by the maintained investment credit rating of the country and already successfully placed government debt emissions on the international financial markets, which would provide liquidity at low interest rates. Undertaking such an anti-crisis strategy at the moment allows the government to not become a factor limiting the domestic financial resources, but at the same time missing the opportunity to pay interests to local financial institutions, especially with the high volume of savings in the banking system (70% of GDP in 2019).

4.4. Risks to maintaining the fiscal stability in 2020

The main risks to the budget stability are summarized as follows, distinguishing between both short-run and medium-run aspects:

- ***Labor market situation.*** To a large extent, the labor market turned to be the main mechanism for adjusting the economy to the shocks, given the experience of the last global financial and economic crisis (2008-2009). With a significant increase of unemployment and expectations for it exceeding 8%, a further increase of the state social security expenditures is possible, as well as a decrease of the budget revenues due to shrunk household consumption and limited corporate activity.

- ***Budget revenues structure.*** Positioning budget revenues in the country on indirect taxation makes the revenue side of the budget vulnerable to cyclical fluctuations and lack of sufficient fiscal buffers accumulated in upward economic development. Unemployment increase and consumption subsequent decrease require support for government social expenditures, which would partially compensate the cyclical effect on budget revenues. In a broader aspect, the question of the prioritization of sectors of the economy in terms of taxation and the parameters of the tax system in the country inevitably arises. It cannot be stated explicitly whether the VAT reduction for certain sectors will affect their transparency, and hence will lead to an increase in budget revenues and a multiplied positive economic effect in general. Changes in indirect taxation are promoted as an anti-crisis measure. At the same time, there is a risk that once the differentiated VAT rates are introduced, it would be difficult to go back to their previous levels. Thus, the imposition of differentiated VAT rates poses a risk to maintaining the fiscal stability without clear indications that the measure will not actually be a subsidy for economic sectors with suspicions of a high share of hidden economy in them, such as restaurants and hotels, and covering losses in the current situation with unreported speculative and hidden profits from previous periods.

- ***Trade and financial openness of Bulgarian economy***. Given the open nature of Bulgarian economy and the strong trade, financial and economic relations with the EU, particularly the euro area, the recovery of the economic activity in the country will depend to a large extent on the recovery in the main trading partners. This indirectly creates a dependence of the budget revenues, and affects the need to increase the budget expenditures in relation to the state of the external environment, including in terms of opportunities for borrowing financial funds on international markets.

- ***Limited scope and atypicality of the macroeconomic policy in the country.*** Under a Currency Board Arrangements, the possibilities of the macroeconomic policy are severely limited, and the discretionary actions of the government are further limited by nationally set fiscal regulations. The low fiscal multipliers in the country with high trade openness (124% of GDP in 2019) and the low redistributive role of the government (with a deviation of 10 p.p. compared to the EU average) lead to a real impossibility to implement a countercyclical and stabilization fiscal policy. Currently, the main parameters of the government's anti-crisis program include providing credit opportunities to businesses and government guarantees, including through the country's contribution to the Pan-European Guarantee Fund in response to COVID-19. Although by the middle of the year there are no clear indications of such prospects, with the negative economic effects increasing, we can expect an increasing social discontent and a need for real measures to support households, and especially the persons with the lowest incomes in the country and the highly vulnerable groups. This would require another revision of the budget and setting new parameters for the budget deficit and the ways of its financing.

- ***Government expenditure policy***. Given the economic drop between 3 and 10% according to the various forecasts of many institutions, the increase in the tax burden in the country in reality is unattainable and would cause an even stronger negative pro-cyclical effect. Thus, the expenditure side of the budget strengthens its specifics as an instrument for maintaining the fiscal stability and its effective management becomes a main imperative. The risks in this direction are related to the imposed in the recent years model of targeted financing of certain sectors, such as education and healthcare, in which the country significantly lags behind the average European levels, without linking it to structural reforms with clear parameters and expected results. This leads to inefficient use of public resources, including the desire of the government to directly intervene in certain sectors of the economy and become a real business entity.

- ***Exhausted growth potential in the current model of economic development***. The evaluations of the output gap show that by 2019 the growth of the potential GDP slows down, which is an indicator of the lack of significant premises for achieving higher growth, necessary for the catching up and the real convergence to the EU. The lower growth potential[22] is due to subdued investments in physical capital as a result of reduced inflows of foreign direct investment to the country, lower income of the companies for investment and low credit growth for non-financial enterprises, as well as population decrease, lasting emigration, and signals for overheating of the labor market in 2019. All these factors, combined with the unfavorable economic effects in early 2020, pose risks not only to the fiscal stability but also to the macroeconomic stability in the country as a whole, and do not lead to a stable convergence rate. ***The implemented fiscal policy of low tax rates, the lack of a clear strategy for expenditure policy through structural reforms, and the use of the low government debt as a buffer for external financing with delayed long-run effects, clearly cannot stimulate the necessary catching-up development of the country.*** With upward economic development, the achieved results in terms of the economic growth and the unemployment can easily be considered an assessment of the effectiveness of the fiscal authorities, but their limited scope in economic shocks actually shows the vision and the direction of the macroeconomic policy.

[22] In a comparative plan for Bulgaria and 118 other countries, the factors for long-run economic growth are studied with a special focus on the so-called new growth factors (Atanasov, 2019).

5. Labor Market in Bulgaria – Its State in 2019 and Expectations for Its Development in 2020-2022

Labor market in Bulgaria, as well as in other EU countries, has developed as an inclusive market that stimulates the employment, the unemployment decrease, and the incomes significant for poverty reduction. In 2018, however, discussions started on the existing risks before it. They were provoked by the technological innovations, the demographic changes and the globalization.[23] In 2019, an annual analysis of the European Commission[24] stated a weakening of the economies, but with yet stable European labor markets.

COVID-19 pandemic in early 2020 imposed a number of sanitary restrictions that accelerated the already ongoing unfavorable changes in the economies at national, European and global level. In the recent months, there were definite changes in the labor market indicators in Bulgaria, which showed the beginning of a crisis. In the period 23.03.-03.05.2020, an average of 17 800 persons per week registered as unemployed. This is 3 times higher number than the one in the period 03.02.-23.03.2019.[25]

The started labor market crisis had unique characteristics yet at its current, initial stage of manifestation. ***It did not start with the traditional delay compared to the economic or financial crisis, but preceded them***. And this is quite natural after the necessary withdrawal of a large part of the labor resources from almost all sectors of the economy, which led to a corresponding delay or suspension of certain groups of production and changes in the current organization of work. Another specifics of the current labor market crisis is the high degree of its uncertainty under the influence of non-economic factors. Inclusion of persons in the labor activity and reopening the productions will depend on how soon appropriate protection against COVID-19 will be offered. There are still no definite predictions on the duration of the period of control of this disease. There will be yet another at least one and a half and even more years, during which certain forms of social isolation will continue to be applied and the geographical mobility of the labor force will be limited.

COVID-19 deepens the debate on the future development of labor in the fourth industrial revolution (Industry-4), including digitalization, application of new business models, optimization of production and logistics, improvement of the quality of the workforce and its competencies. The implementation of these changes will help create a new organization of work in some sectors of the economy and will stimulate flexible forms of labor participation and employment. In Bulgaria there is still no developed national concept (strategy) for transition to the requirements of Industry-4. It can help the selection of perspective industries in overcoming the current crisis and the relevant priority guidelines for qualification of the necessary human resources.

[23] Employment and Social Developments in Europe: 2018 review confirms positive trends but highlights challenges, in particular linked to automation and digitalization, https://ec.europa.eu/commission/presscorner.
[24] Labour Market and Wage Developments in Europe, Annual Review 2019.
[25] The highest value of this indicator is 31 500 newly registered unemployed during the week between 06.04.-12.04.2020 (NSI).

5.1. Labor market in Bulgaria in 2019

At the end of 2019, a new series of improved indicators for this market was registered, but the main problems from previous periods still remained.

Supply of labor

Employment continues to increase and the target in the Europe 2020 Strategy for 75% employment of the population in the age group 20-64[26] has been achieved. The employed persons in the age group 15-64[27] are 3 136 300 people (employment rate 70.1%), which is 80 400 people more than last year.[28] In the employment distribution by sectors, the direction is mainly towards "Services". However, it is not as well expressed as in most European countries. One of the main reasons is the labor-intensive nature of industry and agriculture in our country and the still limited opportunities for dismissal of employed in these sectors.

In the last 8 years (2013-2019) the share of employed with secondary and higher education in their structure according to educational level continues to increase. In 2019, however, the share of employed with primary education has increased, though slightly. It can be assumed that in the conditions of labor shortage the employers start to fully use all available opportunities, including hiring less educated people.

Along with the positive results, in 2019 the already known main problems of the Bulgarian labor market have deepened. ***There is a physical shortage of labor resources and unfavorable changes in their age composition***.[29] The aging of the employed (and the population) is a common trend for other European countries as well, influenced by the demographic factor and the changes in the conditions for retirement. The problem is not only and not so much in aging itself, but in the low inclusion of young people into the employment. In Bulgaria, it is strongly limited not only by demographic reasons, but also by difficulties in activating this group (despite some results from the implementation of the "Youth Employment" initiative). The paradox continues that the share of people aged 15-24 who do not work or study remains one of the highest in the EU. In addition, our country is unattractive to foreign workers, and immigrants practically do not contribute to increasing the available workforce.

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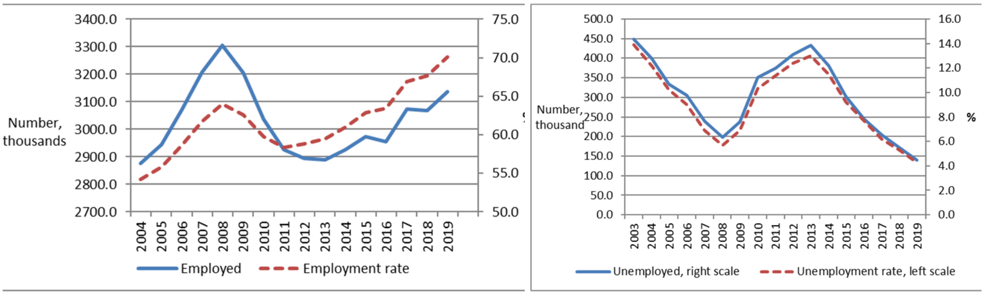
[26] In 2018, 14 EU member states have met the requirement for employment rate for people in the age group 20-64 to be 75% or more. These are the Nordic countries (Sweden, Denmark and Finland) with a rate of 80% and more, the Baltic countries (Estonia, Lithuania and Latvia), as well as the Czech Republic, Germany, Netherlands, Austria, Portugal, Slovenia, Austria, Portugal, Malta and the United Kingdom. https://ec.europa.eu/eurostat/statistics-explained.

[27] Hereinafter, unless otherwise stated, the text discusses the population aged 15-64.

[28] The 2019 data are preliminary and are according to additional calculations based on published information of the National Statistical Institute for 2019 quarters. Information from "Labor Force Survey" is used, unless another source is stated.

[29] Almost half of the employed (46.4%) are aged 45-54, compared to 40.5% in 2008 (NSI).

Figure 21. Labor market



Note: Employed is in thousand; employment rate is in %.
Source: NSI.

<u>Demand for labor force</u>

In 2019, the intensity of labor demand decreased. In this year, 20 139 jobs were offered, while in 2018 they were 20 781. Job vacancy rate (JVR) in 2018 and 2019 is 0.9%.[30] According to the administrative statistics of the Employment Agency, the demand for labor in the labor offices also registered a decrease. The announced jobs were 9500 with a planned number of 11 000.[31]

Behind the changes in the number of offered new jobs is the worsening of the business expectations of the employers. The general indicator on the business climate in 2019 reached 27.9%, and in 2018 – 28.8% (average value based on monthly rates). For the first quarter of 2020 it decreased to 26.7%. In April 2020 its value was 17.7%, or 41.7 p.p. lower than in the previous month and 47.5 p.p. lower than in 2019.

At the end of 2019, the most important reasons for bad business expectations are the uncertain economic environment and the unassured orders and the competition in the industry. However, the number of employers with unsatisfied demand for labor grows. In 2019, this is the most significant factor that hinders the economic activity in construction and industry, according to business surveys of NSI. The professions in demand are in the sector of personified services; workers in the mining and processing industry, in construction and transport; operators of stationary machines and equipment; salesmen.[32] The stated needs of the employers repeat the basic ones from previous years and well outline the importance of the live labor for the labor-intensive technologies applied in our country. It cannot yet be assumed that they are provoked by serious technological changes in the production process and in the provision of services.

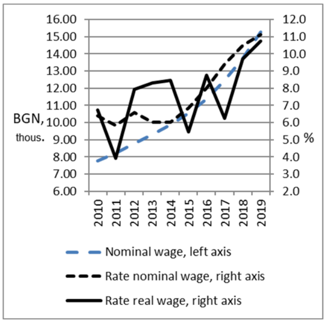
[30] In the period after the last crisis, the largest number of vacant jobs was offered in 2008 and 2018. Only in 2008 JVR was 1%, and in the last 7 years of increasing demand it is below this value, or an average of 0.8% per year (NSI).
[31] 2019 Report on Employment Action Plan of the Employment Agency, p. 16, https://www.az.government.bg.
[32] According to information from surveys of the Employment Agency, https://www.az.government.bg.

5.2. Incomes from labor

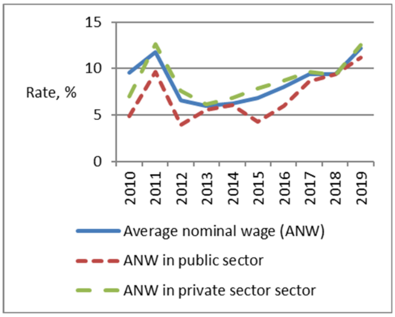
Wages continued to increase in nominal and real terms. According to preliminary NSI data, in 2019 the annual average nominal wage (ANW) reached 15 300 BGN (1274 BGN average monthly), and its increase compared to last year was at a rate of 11.1% (Figure 22). The real average annual wage realized a 10.8% raise in 2019 with 3.1% annual inflation. This is a similar dynamics to 2018, but significantly higher compared to 2017, 2015 and 2011. In the near future we anticipate the continuation of the inflation processes and their negative impact on wages (and other incomes of the population). Again, as in the previous report for 2018, the need for changes in income protection mechanisms should be emphasized when expanding their scope and tools.

Figure 22. Incomes from labor

Average annual nominal wage (thousand BGN) and dynamics of nominal and real wage (%)



Dynamics of average wage in the public and private sector (%)



Source: NSI.

Wages in the private sector catch up with those in the public sector due to their higher dynamics in the recent years (Figure 22). In 2019, there was a slight lag in wages in the public sector (rate of 10.8%, compared to 11.15% in 2018). The difference between their nominal monthly values is only 29 BGN in favor of the public sector. Despite this lag, it can be assumed that in the current crisis, working in the public sector will increase its attractiveness. This is expected for small settlements, where the public sector is the main employer, while the private business is seasonal and unsustainable.

The government increased the monthly minimum wage to 560 BGN. It is 44% of the average wage, compared to 44.9% in 2018. This ratio is acceptable in terms of the general trend in the European countries. The minimum wage continues to grow at a more moderate pace after 2013 – a process that stimulates its relation with the productivity of the low-qualified labor, but retains its social functions.

The increase of the wages contributes to the increase of the household incomes. In 2019, incomes from wages were 2 times higher than the one in 2010, and their share in the total money income of households increased to 57.1% (52% in 2010). Despite the total increase of the incomes from labor of the Bulgarians, they remain the lowest compared to those in other European countries.[33] Bulgarian population is the poorest in the EU, which is one of the main reasons for the decisions to emigrate and work under better working conditions and pay.

5.3. Labor market policies

Active labor market policies[34] are realized through the implemented programs, measures, project schemes, financed with funds from the State Budget (SB) and European structural and investment funds. Among them, most significant is the European Social Fund (ESF) and the procedures financed through it in the "Human Resources Development" Operational Program (HRD OP).[35] Its first axis aims to improve the access to employment and the quality of jobs.

In 2019, active policies have been financed with 69.5 million BGN from the State Budget. The amount is almost fully used for national programs and projects, incentive measures and training of adults, as well as for providing mediation services. This amount and the nomenclature of the policies have not changed in the recent years (with a few exceptions of the social partners' programs). In 2019, the budget funds are 0.58% of GDP (preliminary calculations) only for active policies. Bulgaria remains in the group of countries with the lowest such share in the EU.[36]

The limited budget funding is combined with ESF opportunities. Under the first axis of HRD OP 92.8% of the programmed funds have been agreed, but 61.8% actually paid (at the end of 2019). These shares are second in significance after those of reduction of poverty and promotion of social inclusion (second axis of HRD OP). Obviously, the financed funds for active policies are limited, which determines the relevant limited scope of people who need them.

The number of participants only in the budget public policies in 2019, organized and implemented by the EA, is slightly bigger than the one in 2018, due to conjunctural factors

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[33] In 2019, wages in Bulgaria are only 5 EUR/hour, while for the EU-27 they are 20.8 EUR/hour, with the highest wages in Denmark (38.3 EUR/hour). The differences in the labor costs of the employers in 2019 are distributed in the same way – 6 EUR in Bulgaria, 27.7 EUR in total for the EU-27, and 44.7 EUR in Denmark (Eurostat).

[34] Hereinafter active labor market policies are discussed. The term "passive policies" is still used in various publications and other documents in Bulgaria. In the recent years, it does not appear in the specialized analyses and documents of the international organizations on the labor market. We believe that its use is not correct for the conditions of Bulgaria. Current practices of social security and compensation for temporary job loss are subject to specific but strict regulations (including consistent with actuarial calculations). World practice proves the possibility of introducing a system of unemployment compensations, which automatically change with appropriate changes in the level of nominal and real wages, i.e. a system of compensations with the function of automatic stabilizers. Such a mechanism could possibly be introduced in the euro area countries. Despite some debates on this topic during the last crisis, the idea did not find practical application.

[35] This is a general conclusion in the National Employment Plan in 2020 of the MLSP. It is also valid for the activity of the EA according to its report on the implementation of its goals for 2019.

[36] According to the latest Eurostat data for 2018, the relative share of total expenditures on active policies in Bulgaria is 0.58% of GDP. In 2020, our country is in the group of countries with the lowest shares (below 0.6%), together with the Czech Republic, Cyprus, Latvia, Malta and Poland. For 2020, the arithmetic average level of expenditures for the EU-28 is 1.1% (the calculation of such a value is not statistically correct, but gives an idea of the overall level of expenditures) (Eurostat, [LMP_IND_EXP]).

(Table 1). The main ones are decrease of the registered unemployed people in 2019 (by 8.7 p.p.); moderate change in the minimum wage related with the norms for funding the subsidized employment; increased share of people in training, the costs of which are objectively lower compared to those for subsidized employment. Participants in these policies remain significantly fewer than in previous years, but with an improving share of the unemployed who have started work due to the increased demand by the employers in the real economy.

Table 1. Participants in active labor market policies (number)

Year	2015	2016	2017	2018	2019
Included in employment and vocational training	35069	33650	39189	31830	32123
Employment (subsidized)	24357	22386	28264	21297	18333
Vocational training	10712	11264	10925	10533	13790
Share of unemployed included in employment in the average annual registered unemployed (%)	6.2	7.7	8.4	9.4	9.7

Source: Administrative statistics of EA.

In 2019, the provision of an expanded range of specialized services for the job seekers and the employers develops further. Continues also the successful functioning of "Job" clubs at the labor offices; career centers; specialized teams for working with young people or people with permanent disabilities; job search workshops. Employees in the labor offices have "field" work in companies with dismissed employees and/or through mobile labor offices; they establish direct contacts with employers and provide them with own premises free of charge for organizing labor exchanges. Established are the necessary for the efficient work of the labor administration partnerships with the local government, local employers, regional education and training departments, and the secondary and higher schools available on the territory, the NGO sector. New services are also applied, in particular in the career guidance and profiling of the unemployed. Already introduced in all labor offices are advanced instruments for skills assessment through the electronic platform MyCompetence. Mentoring after starting work begins to be implemented more actively. A relatively new direction of an integrated scope of the needs of the unemployed, especially the youth, is the work of a family labor consultant with the whole family.

The activated inactive people for registration at the labor offices and further work with them are 34 000 persons, i.e. over 2 times more than the planned for 2019. The activated unemployed who made the transition to employment are 8.7% of the average monthly number of registered, with planned 8.2%. In 2019, however, decreases the share of those who have started work quickly, within 6 months after their registration (57.5% of all transitions, compared to the planned 65%). There are difficulties in activating the long-term unemployed and their employing in the real sector (11.3% of the transitions, compared to 16.2% planned for 2019).[37] The last two indicators show difficulties in providing the necessary workforce to the employers, and in the case of the long-term unemployed the loss of professional knowledge, skills and habits is significant. The smaller number of jobs offered through the labor offices in 2019 also has an impact. The problems with these transitions will deepen in the next crisis years, and the importance of the professional qualifications of job seekers will increase. The issue does not concern

[37] According to EA data.

only the study of key competencies, but mostly professional competencies, providing an opportunity to develop qualities for specific jobs and according to the requirements of the professional profiles.[38]

The information on the labor market is significantly enriched based on system surveys organized by the labor administration. In 2019, the Employment Agency has supplemented the provided information with such from surveys of employers on the professions they seek. In addition, development of medium-term forecasts for the labor market demand is regularly organized. In 2019, the last such forecast until 2034 is published.[39] Summary information on regional labor markets is provided in planning and reporting documents. This is information that is present in the monthly reports on the labor market, prepared by the Employment Agency, which already have more significance and publicity.

The program procedures under the first axis of HRD OP include the successfully implemented ones of national importance (mainly with a specific contractor EA and other national agencies), initiatives of regional and sectoral importance with beneficiaries NGOs, social partners, training and medical institutions, and others. In March 2020, a new procedure BG05M9OP001-1.099 “Protection of the population from threats to public health caused by pandemic crises” was announced with a specific beneficiary the Ministry of Health for the provision of 60 million BGN in grants. This is an example of the general attitude so far to react quickly with the capabilities of this operational program to solve important problems and prevent social risks.

In 2019, the number of contracts with local action groups (LAGs) for activities important to the territory in which they operate has increased significantly. The funds are used for development of local business (small and mini enterprises, including innovative ones), entrepreneurship, training of adults, work with risk groups (mostly youths), activation of inactive people and representatives of communities far from the labor market. Due to the good programming, these initiatives have a purposefulness and significance for the local communities, so far.

According to a quantitative assessment of the macroeconomic effects of the implementation of the HRD OP, the activities within the current ending term have a significantly better contribution to the economic development than those of the previous term (Table 2).

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[38] The information platform MyCompetence, developed by the Bulgarian Chamber of Commerce, is provided to MLSP and will be important for hiring the unemployed according to the requirements of specific jobs. The system provides free of charge instruments for assessing the required knowledge, skills and competencies for jobs, qualifications and profiles, extensive information for organizing personnel training and its selection, and links to other training platforms. An extended personal profile of job seekers is developed, applied in the new organization of their profiling. Also, it offers online courses in key competencies; specially developed tests to check the degree of mastery of a specific competence; taxonomy of professions and relevant dictionaries with basic terms; links to other similar systems of world organizations; links to other training platforms (https://mycompetence.bg).

[39] Medium and long-term forecast for the development of the labor market in Bulgaria, https://mlsp.government.bg/ckfinder/userfiles/files/politiki/zaetost/.

Table 2. Macroeconomic effects of HRD OP in 2012 and 2019 (accumulated)[40]

	2012	2019
GDP (%)	0.7	3.5
Employment (age 15-64, %)	0.8	6.9
Unemployment rate (p.p.)	-1.0	-3.2
Annual income (%)	1.3	4.0

Source: Report of Monitoring Committee of HRD OP, December 2019.

An indicative result is the contribution to the increase of registered employment and going down the of unemployment rate. As of the end of 2019, the planned main indicators for HRD OP have been successfully implemented, with the exception of three of them: unemployed participants aged 30-54 (21.9% implementation); participants with secondary education (ISCED 4), who have acquired a qualification upon leaving the participated operation (27.1% implementation); number of identified innovative practices (46.8% implementation).[41] Given the changing situation on the labor market in 2020, the expectations are that these indicators will develop by the end of the programming period, but mass introduction of innovative practices will be a difficult task in the next two years.

In 2019, labor market policies have been implemented under conditions of positive (though not very high) economic growth, which has allowed relative stability in the employers' demand for workforce. The registered positive results are due to an expanded range of services provided by the labor administration; experience gained so far in the implementation of initiatives under the first axis of HRD OP; established links and efficient mediation for employers seeking for workforce through the labor offices. They could be better with higher financing of budget funds, with which to expand the professional qualification of the unemployed and to promote measures in favor of activating the demand and starting work; as well as to improve the quality of the mediation services provided by the labor administration.

5.4. Labor income policies

In 2019, there have been no significant changes in these policies. The plan for 2019 indicates the need for priority actions to create a coordination mechanism in the field of labor incomes. To this end, consultations with the stakeholders are required, in accordance with the recommendations of the European Commission. The first report on the implementation of ILO Convention №131 on determining a minimum wage is also expected to be presented. The report is not developed and the mechanisms will be further

[40] The assessment is total for the HRD OP. The presented indicators are mostly influenced by the implementation of the procedures under the first axis, which serves employment. The total assessment includes also indicators for export and import of goods and services; current account (% of GDP); private consumption; private investments; inflation (HICP); budget balance (% of GDP) (Simeonova-Ganeva, Panayotova, Ilieva, 2012).
[41] Progress Report, 12.12.2019, https://esf.bg/komitet-za-nablyudenie/.

developed by the end of 2020.[42] The process will have a development after the completion of the work (and disputes) at the level of the European Union (and Parliament), as well as at national levels for development of a framework directive on the minimum wage. It is intended to propose common regulations and criteria for its determining. It is also expected to support the cooperation between the social partners and the governments of the Member States. For poor countries with low labor payments, it is important that this mechanism can stimulate convergence in a long run perspective.

According to the Confederation of Independent Trade Unions of Bulgaria (CITUB), the minimum wage should strengthen its social orientation and rapidly increase to 50% of the average wage in order to provide the necessary means of living. Employers remain firm on the unjustifiability of excessive increases for social purposes and give examples of their negative impact on hiring young people and other groups of people with labor market problems. The social dialogue has been disrupted in the last 2 years namely because of the unsuccessful negotiations for determining the minimum wage, which have led to a regression of the industrial relations in Bulgaria. In mid-2020, however, agreements have been reached after the adoption of a National Tripartite Agreement between the government and the social partners (June 17th, 2020).[43] They are expected to be implemented in the practice in the next 2 years. The process will be difficult given the still unclear projections of the effects of the COVID-19 pandemic.

5.5. Expected changes in the labor market policies

The report of the Employment Agency for 2019 draws conclusions on the need to amend the programs and measures in the Employment Promotion Act (EPA) and implement new ones in accordance with regional and sectoral needs, as well as rationalizing the focus on the needs of the risk groups. These are completely acceptable requirements for the end of 2019, which however are expected to be supplemented with new ones.

The experience of the last crisis period well demonstrated the importance of preliminary plans for the sequence of the necessary actions. Such anti-crisis plans for 2020 and later could help clarify the priority of the actions for maintaining the employment in certain priority regions and sectors.

Also, discussions of the texts of the Labor Code have to be organized on opportunities for work on a second employment contract in case of unpaid leave, assignment of home and remote work, work at reduced working hours. It is also necessary to analyze how

[42] The mechanism for concrete determining of the minimum wage will be developed after the completion of project № BG05M9OP001-3.018 “Improving the effectiveness of the income policy and the employability of the Bulgarian citizens”. Its implementation term is extended by one year until the end of 2020.

[43] The agreement (https://www.bia-bg.com/news/view/27221/) has been reached after presenting the final version of this part of the Report. It raises also issues in determining the minimum wage. According to the adopted decisions, the negotiations on the elaboration and adoption of a transparent mechanism for strengthening the contractual principle in determining the minimum wage, in accordance with the ILO Convention № 131, should be resumed. The second requirement is the development of a procedure for negotiating minimum wages by economic activities; launch of bipartite negotiations in 2020 and implementation of their decisions in 2021, after the abolition of the minimum insurance incomes.

popular the currently introduced measures are, such as unemployed and socially disadvantaged working in agriculture (with one-day employment contracts), without losing the right to social benefits and compensations; providing a one-time aid of 375 BGN (with application of an income criterion) to parents of children aged up to 12 years who have been on unpaid leave for at least 20 days due to inability to work from home during the state of emergency. Special attention is also required to the assessment of the effect of the applied measure for partial state compensation of the employers for preservation of the jobs and the duration of its application.

It is assumed that the protection of the minimum wage and the other social security and support payments will continue, despite the expected opposition from the employers. However, forthcoming are the changes in the currently used mechanisms for actualization and/or indexation of the incomes, for negotiating the minimum insurance thresholds, for negotiating minimum wage.

The protection of the unemployed incomes requires changes in the insurance and compensation scheme. It turned out that for various reasons, the Unemployment Fund at the National Social Security Institute (NSSI) has registered a deficit at the end of 2019, given the calm conditions of record low unemployment and low unemployment compensations. Proposals are already made by CITUB to increase the average daily compensation. This has been one of the first measures implemented in 2009, as well as the one-year support (2010) for the long-term unemployed. They have been definitely important for the unemployed. Increases in current unemployment compensations should be discussed between the social partners and the state, and the relevant budget transfers for their payment should be regulated.

The increase of the number of unemployed in a crisis will require the expansion and diversification of the opportunities for subsidized employment. Its negatives are well known, but for the period of exiting crisis this employment may be the main or only opportunity for hiring representatives of risk groups, residents of certain regions, or in certain sectoral niches. In particular, it is necessary to expand the scope of the currently implemented programs, such as "Beautiful Bulgaria" for construction and restoration works and public works, given the problems in construction. Due to the same problems, the possibilities of social services for vulnerable people in the current pandemic should be expanded. The importance of the "Career Start" Program for youths and the "National Program for Employment and Training of People with Permanent Disabilities", as well as other programs for people with special needs, will require also expanding their scope in the near future.

In addition to subsidizing employment, trainings for employed (including part-time ones) and unemployed people are essential in difficult economic periods. An already proven efficient scheme after 2008 is the one for providing vouchers, combining part-time work with training, and payment of scholarships to students. However, distant training for adults must find its real application, once it is provided methodologically and with personnel. This is a serious problem, the practical solution of which is urgently needed.

One of the main negative consequences after 2008 crisis is the boost number (and share) of long-term unemployed. The current crisis begins without a sufficient solution to this problem, and without overcoming the difficulties in activating representatives of some ethnic groups of the population. Despite the existing experience in applying an individual approach and overall care, the specialized services of the labor administration still do not achieve the desired results for this group of unemployed. In this regard, it is necessary to implement more active prevention against the long-term unemployment.

Maintaining and improving the quality of employment depends not only on the labor market policies, but mostly on the investments made in the economy towards improvement of the labor productivity. It is necessary to develop a concept for the future restructuring of the employment. This is one of the main tasks in the conditions of recession and overcoming it with real benefits for the economy and increasing the welfare of the population. In this regard, the need for priority realization of the professional qualification for adults is without alternative.

The discussion of possible policies on the labor market under the new conditions of its development requires the active participation of the social partners. The difficulties in the current social dialogue should be overcome. It must be restored and developed with national responsibility and contribution to the most valuable modern resource – the human and his/her knowledge and skills.

5.6. Projections for the development of the labor market in the period 2020-2022

We attempt to outline quantitative changes in key indicators of the labor market for the period 2020-2022 in the line of two projections. The first one follows the results of the outlined framework of the applied macroeconomic model. According to the first projection, employment will remain more sustainable compared to the changes in the last crisis after 2008. We believe that maintaining it at over 3 million people is a good prospect for the labor market and an opportunity for its positive impact on the economic growth. According to this forecast, the economic activity of the population can be expected to remain, to a certain extent, after the active policies in this direction before the sanitary crisis of 2020.

The second projection is based on the experience of the period 2009-2011. This is a retrospective but entirely possible forecast, which repeats the relative indicators for these years. Its purpose is to show the importance of maintaining the employment for overcoming a crisis situation, which has not been taken into account to the necessary extent in that period.

According to the experience of the last crisis, employment rates decreased for 3 years (2009-2011), after which they restored their levels from 2008 for the next 4 years (2012-2015) (Figure 21). In the case of unemployment, the increase of the rates last until 2013, i.e. for 5 years, according to both NSI data and EA data. It took another 5 years (2014-2018) to restore its basic levels from 2008. Thus, according to the changes in the main employment and unemployment rates, the labor market went through a recession and a recovery period for about 10 years totally (2009-2018). The control of the employment decrease was of main importance, which naturally led to unemployment decrease and activation of a part of the economically inactive population.

The forecast according to the macroeconomic model takes into account this experience. Employment recovery is expected to begin after 2021. There are objective prerequisites for this in view of the foreseen subsidies and other schemes for the employers to maintain the employment and the opportunities of other economic levers. We agree with the EC's forecast that most jobs will be lost in the "Service" sector, where live labor is difficult to replace, and in this regard the constraints are expected to last the longest.[44] With the strong deterioration of the indicator of business climate in Bulgaria, it can be expected that in 2020 employers will offer 20-25 p.p. fewer jobs compared to 2019 and the values of the reduced average wage rates will be between 0.6 and 0.7%. Table 3 presents possibilities for employment and unemployment development. The preferences are to keep employment close to its levels in 2019, as it is according to the results of the applied macroeconomic model.

Table 3. Projections for changes in key indicators of employment and unemployment

	Report	Projection according to the macroeconomic model			Retrospective projection		
	2019	2020	2021	2022	2020	2021	2022
Number (thousand)							
Active	3276.4	3306.6	3340.5	3378.2	2971.8	2921.2	2863.2
Employed	3136.3	3033.6	2917.3	2979.6	2766.8	2620.3	2536.8
Unemployed	140.9	273.0	423.2	398.5	205.1	300.9	326.4
Rates (%)							
Activity	73.2	74.8	76.5	78.2	67.2	66.7	65.9
Employment	70.1	68.7	66.8	68.9	62.6	59.8	59.5
Unemployment	4.3	8.2	12.3	11.1	6.9	10.3	11.4

Source: NSI and additional calculations.

The realization of the forecast according to the model relies on the positive influence of the seasonal factor and the relevant easing of the situation in sectors such as tourism, hotels and restaurants, trade, construction and transport. They can partially compensate for the employment losses in the second and third quarters of the year, although achieving such a result is highly conditional. The foreign trade partners and the recovery of their orders to the local producers are significant, as well as the activation of the domestic demand. However, these plans could fail with a new wave of COVID-19 in the last quarter of 2020.

According to the EC's forecasts, in 2020 the nominal growth of labor incomes will be 3.4%, and in 2021 – 2.3%. There is a possibility that this assumption will be adjusted both for 2020 and for the next two years.[45] According to the forecast based on the macroeconomic model, nominal wages will increase by 7.3% in 2020, by 9.9% in 2021, and by 12.4% in 2022, which is a very optimistic perspective.

Employment and unemployment, as well as the projections for changes in wages, are subject to many pre-conditions. Some employers may prefer to keep the qualified personnel if they have high productivity and sufficient potential to meet the costs of the wages. These decisions, together with the dismissal of the less qualified personnel, will

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[44] https://ec.europa.eu/economy_finance/forecasts/2020/spring/ecfin_forecast_spring_2020_bg_en.pdf.
[45] Ibid.

eventually lead to an overall increase of the average (nominal) wage level. It is difficult to assume such a version, having in mind that there is still no well-defined concept for restructuring our economy in the medium term, which would provide real prerequisites for increasing the labor productivity. In the near future, it is more likely to use work at reduced hours (for certain periods and in some sectors) and to maintain the dynamics of the nominal wages of the full-time employed. Under these conditions, the weak increase in wages and the additional burden of the public finances will continue.

6. Foreign Trade

The review of the structures and trends in the foreign trade in 2019 is a starting point for the forecasts in the short term. Their structure, seasonality, geographical concentration, etc., are important for the development of exports and imports.

6.1. Exports of goods

Goods accounted for 75.4% of the whole Bulgarian exports in 2019. The physical volumes of the export of goods increased by 1.9% compared to the previous year. However, there were no significant changes in the already lasting established structure of Bulgaria's foreign trade, considered by the way of use. Consumer goods had a share of 25.4%. Exactly 39% were formed from raw materials, 24.3% of the exported goods were investment goods, and energy resources were 11%. The steady trend for export of goods with a low degree of processing continued, including of raw materials and goods with relatively low added value.

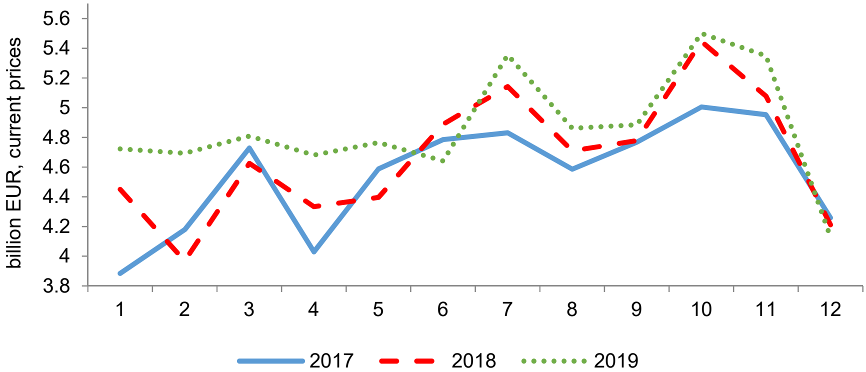
In 2019, exports to almost all of Bulgaria's main trading partners, with the exception of Germany, decreased, while exports to third countries increased. However, there was no significant change in the geographical distribution of the exports. In 2019, the tendency of Bulgaria's exports to be concentrated in a limited number of countries remained. The concentration of the foreign trade is measured by the "geographical concentration (GCr) of exports" (Galabova, 2014). As a result of the calculations, it turned out that the geographical concentration of Bulgaria's exports had a balanced geographical structure – the first 5 countries formed 44.8% of the country's exports of goods. This was a slight decrease compared to the previous 2018 (by 1.4 p.p.). The established trend for concentration of the exports continued mainly to the other EU countries – 4 of the first 5 exporting countries were from the EU. The country with the largest share in exports was Germany (14.8%), followed by Romania (8.7%), Italy (7.3%), and Turkey (7.3%). On fifth place was Greece (6.7%).

In 2019, exports to Germany were dominated by the mined in Bulgaria ores and concentrates of precious metals, unrefined copper and electrical panels, panels, consoles, desks.

Steel bars, tractors and related harvesting devices were mainly exported to Romania. Copper and copper alloys, shoe parts and petroleum oils were mainly exported to Italy. Turkey imported from Bulgaria mainly petroleum oils, refined copper and cables. Exports to Greece were dominated by sunflower oil, wheat, petroleum oils and electricity.

Exports were also characterized by strong seasonality. Figure 23 shows the monthly values of commodity exports for the last 3 years. As seen, the months of April and May did not form a significant share of exports based on the last 3 years. After January and December, they were the weakest months of the realized value of exports. I.e. if the main restrictions to the international trade are only in June, then there is a real possibility that most of the exports will be realized.

Figure 23. Monthly values of commodity exports

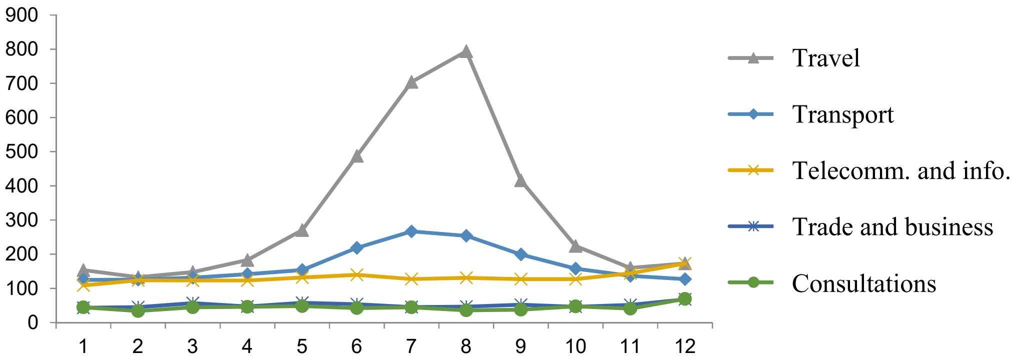


Source: NSI.

6.2. Exports of services

In 2019, exports of services accounted for 24.6% of all exports of the country. Among the services, the largest share belonged to those classified as *"Travels"* (services provided to foreign nationals in Bulgaria). With almost 3.8 billion EUR, travels accounted for 40.6% of the exports of services in 2019. The other large group *("Transport")* had a share of 21.5% or 2 billion EUR. The third group *("Other Services")* made up 33.6%. Their disaggregation shows that the largest share had *"Telecommunications, Computer and Information Services"* (16.7% and a value of nearly 1.6 billion EUR). They were followed by *"Technical Services, Trade-Related Services and Other Business Services"* (6.5% or 614 million EUR), and *"Professional and Management Consulting Services"* (5.6% or 534 million EUR).

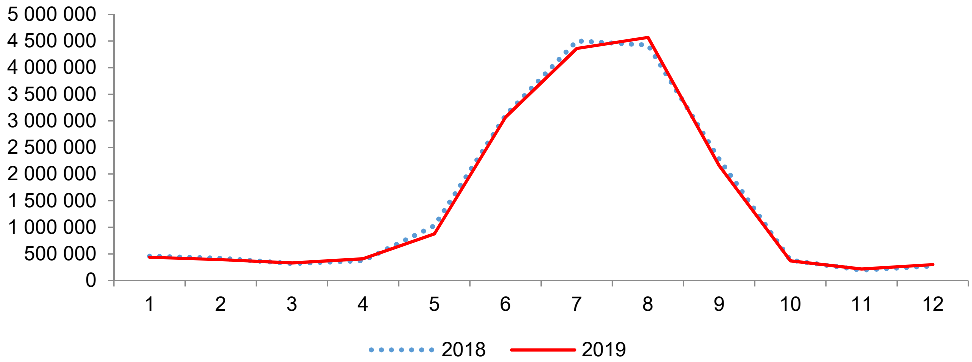
Figure 24. Seasonality in the export of services in 2019



Source: BNB.

As Figure 24 shows, *"Travels"* had the highest seasonality. These were the services provided during the visits of foreign nationals in the country. In 2019, 12.5 million foreigners visited Bulgaria, and they spent over 17.5 million nights in the registered accommodation places. The largest share of realized overnight stays was from nationals of Germany (15%), followed by Romania (14%), the United Kingdom (10%), Poland (10%), and Russia (6%). The realization of the overnight stays showed a strong seasonality, and 71% of them were realized from June to September.

Figure 25. Realized nights by foreigners in 2018 and 2019



Source: NSI.

Table 4. Share of realized nights by foreigners, by months of 2019

Month	Share	Cumulative share
1	2.5	2.5
2	2.2	4.7
3	1.9	6.6
4	2.3	9.0
5	5.0	14.0
6	17.6	31.5
7	24.9	56.5
8	26.1	82.6
9	12.3	94.9
10	2.1	97.1
11	1.2	98.3
12	1.7	100.0

Source: NSI.

With the normalization of the situation with the international travels before the end of the summer season, there is an opportunity to realize part of the incomes from tourism.

6.3. Imports of goods

Imports of goods formed a share of 84.3% of the total imports of Bulgaria in 2019. The physical volume of the imports of goods in Bulgaria in 2019 increased by 2.4% compared to the previous year, while maintaining the established structure by the way of use.

Consumer goods accounted for 23%, nearly 35% were raw materials, 27% of the imported goods were investment goods, and energy resources amounted to 15%. The steady trend of a high share of imported consumer goods continued, showing the impossibility to satisfy the consumer demand with locally produced goods. Restrictions in the international trade might create opportunities for Bulgarian producers to replace some of these imports with Bulgarian products.

In 2019, Bulgaria's main trading partners, established in the recent years, remained. The geographical concentration of Bulgaria's imports had a balanced geographical structure. The value of geographical concentration (GCr) of import for 2019 is 0.43. This corresponded to a 43% share for the first 5 main trading partners of Bulgaria's imports, marking an increase of 1 p.p. compared to the previous year. Imports from other EU countries accounted for 52% of imports of goods. In total, the countries of Asia had a share of 19%, and the Balkan countries – 10%. The country with the largest share in imports was Germany (11%), followed by Russia (9.3%), China (8.4%), Italy (7.3%), Turkey (6.6%).

In 2019, imports of goods from Germany were dominated by passenger cars, medicines and tractors. Bulgaria imported from Russia mostly crude petroleum oils and petroleum gas, pipes. From China the country imported mainly telecommunication equipment, car parts and air conditioners. Imports from Italy were dominated by electricity, passenger cars, and medicines. Bulgaria imported from Turkey mainly passenger cars, rolled products of iron and steel, as well as copper ores and their concentrates.

6.4. Imports of services

Services accounted for 15.7% of the country's total imports in 2019. Among services, the largest share belonged to those classified as *"Transport"* (38.4% or 2.2 billion EUR). The second largest group was *"Travels"* – services provided to Bulgarian nationals abroad (28.5% or 1.6 billion EUR). The countries with the highest number of visits were Turkey (1.6 million trips), Greece (1.4 million trips), Romania (554 thousand trips), Serbia (515 thousand trips), and Germany (446 thousand trips). Within the import of services, the third place was occupied by *"Telecommunications, computer and information services"* (8.4% or 481 million EUR). Next were *"Technical Services, Trade-Related Services and Other Business Services"* (7% or 403 million EUR).

6.5. Development of foreign trade in the short and medium term

The expectations for 2020 and the next 2 years are undoubtedly overshadowed by the international restrictions imposed by the spread of COVID-19. The visions for the recovery of the foreign trade flows also depend on the speed of controlling the contagion and removing the obstacles to the international trade.

From Bulgaria's point of view, "Tourism" sector is the most vulnerable. The conducted analysis (Figure 24, Figure 25 and Table 4) shows that the main turnovers are during the summer period. Restrictions on the international tourism in the whole European Union are gradually eased, which creates premises for the realization of some of the foreseen tourist trips.

Another vulnerable sector is "Transport". The conducted analysis shows the significant share of the international transport in the exports of services. International transport restrictions have a direct impact on the sector. The sector has shown its flexibility and is likely to recover quickly after the restrictions are lifted. The current situation will inevitably lead to a reconsideration of the directions of the sector policies, characterized by significant restrictions in the recent years.

The high openness of the Bulgarian economy, the significant concentration to a limited number of trading partner countries, combined with *"the limited material and human resources of the country, (…) predetermines the great dependence of its economic development and growth on the exports and imports and the global economic situation."* (Tassev, 2012). In this way, foreign trade becomes a mechanism "for transferring the negative effects in case of crises" (Marinov, 2019). International trade becomes a transmission mechanism for rapid transfer of the economic status quo from the other countries. Apart from a threat, this can be considered also as an opportunity. The recovery rates will be transferred quickly from the trading partners to our country.

Studying the sustainability of the leading goods in the country's export list shows that Bulgarian exports are characterized by high sustainability (Nestorov, 2020). This fact is evident also from the rapid recovery of the foreign trade flows after the crisis of 2008-2009, when in the following 2010 the values of exports exceeded those before the crisis.

Of course, comparing the current situation with a typical economic crisis is not entirely correct due to the original causes. At the very least, the economic relations between the economic operators are not lost, there are limited opportunities for change in the supply chains, since the situation with the restrictions affects large part of the world. It would be more correct to speak not of a "recovery" but of a "unfreezing" of the international trade. That is why, the expectations should be for a rapid recovery of the international trade flows after the lifting of the restrictions.

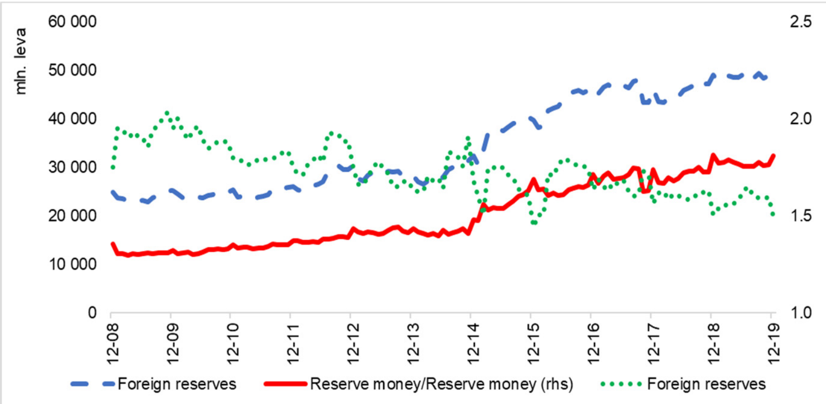
7. Financial Sector

7.1. Dynamics of monetary and credit aggregates

Reserve money

Reserve money at the end of 2019 was less than the one at the end of 2018. The decrease was insignificant (0.3%) and was in line with the decrease in the foreign reserves. Figure 26 illustrates the nature of the currency board[46], which requires reserve money to be covered by foreign reserves. Despite the trend towards a slight decrease in the foreign reserves/reserve money ratio in the recent years, the currency board continues to ensure the stability of the entire financial system.

Figure 26. Foreign reserves and reserve money



Source: BNB.

From the point of view of the reserve money supply, the dynamics in the last year was mainly determined by the decrease of the bank reserves, due entirely to the decrease of the banks' excess reserves. The decrease of the excess reserves was due to the ECB's policy of imposing negative interest rates on excess reserves. The average daily excess of funds maintained by the banks above the required minimum continued to decrease and at the end of the year was below 25% of required reserves, compared to just over 33% in December 2018.

Money in circulation

Despite the development of the cashless forms of payment, the preferences of the economic agents for cash remained relatively high. Money in circulation increased by

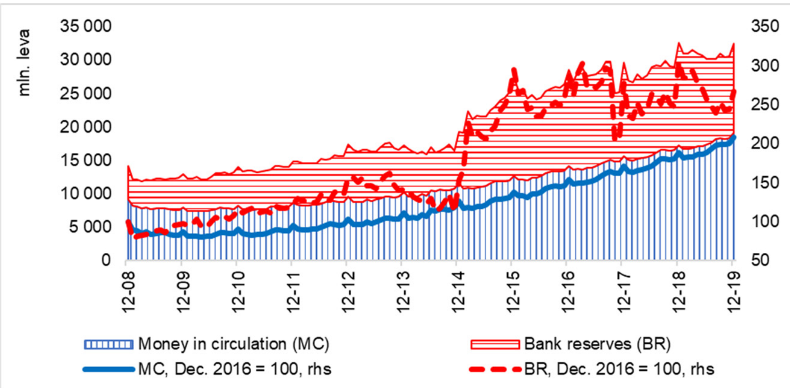
[46] The Bulgarian version of currency board requires the foreign reserves to cover not only reserve money but also all monetary liabilities of BNB.

10.3% in 2019 (the same rate was registered in 2018) and went ahead of the deposits growth. Favorable factors for this dynamics were the low interest rates on deposits and the high demand for goods and services related to the growth of incomes. On the other hand, however, maintaining high share of cash signals also of a high share of the "shadow economy", which has a clear preference for cash.

<u>Bank reserves</u>

Bank reserves in 2019 decreased by just over 12%, while in 2018 they increased by nearly 10%. The high volatility of the bank reserves remained in the past year as well. As far as the minimum required reserves increased due to an increase of the deposits, the decrease of the bank reserves was entirely due to the decrease of the excess reserves. This is related to a certain increase of crediting as well as the negative interest rates on the excess reserves, imposed by BNB. To some extent, the decrease of the bank reserves was also influenced by the decrease of the banks' funds in TARGET2 system.

Figure 27. Components of reserve money



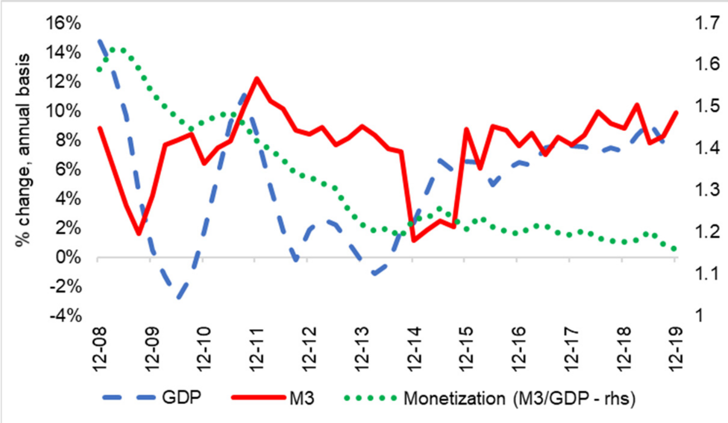
Source: BNB.

<u>Broad money</u>

The monetization of the economy, measured by the broad money/GDP ratio, had the tendency to decrease in the last years (Figure 28).

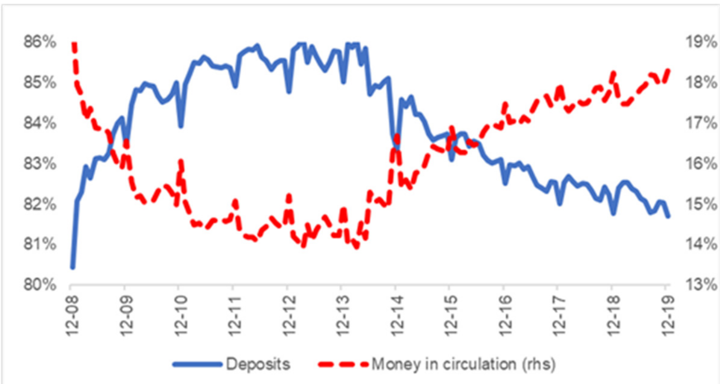
Attracted funds from residents in the banking system continued to grow, which contributed to maintaining a relatively high growth rate of broad money, but still lower than the growth rate of nominal GDP. It should be noted that the low interest rates affected the broad money structure and its components. Figure 29 illustrates the change and trends in the recent years. The underdeveloped financial market, as well as the generally low financial culture of the population, played an important role in the trends thus formed. This ultimately led to the lack of alternative to the bank savings, especially the short-term ones.

Figure 28. GDP, broad money and monetization



Source: BNB.

Figure 29. Share of deposits and money in circulation in broad money



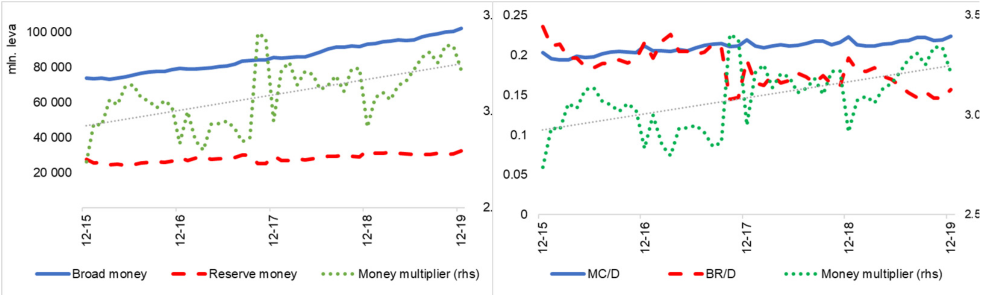
Source: BNB.

Despite the decreasing share in the recent years, deposits continued to be a main part of the total attracted funds in the banking system. Non-financial enterprises, followed by households, had the main contributions to the growth of the deposit mass. The preference for local currency was characteristic of both groups.

<u>Broad money multiplier</u>

The dynamics of the broad money can also be considered in terms of the money multiplication (Figure 30). In the last few years, the money multiplier had fluctuated within relatively narrow limits and had a slight upward trend due to the decrease of the commercial banks' excess reserves.

Figure 30. Money multiplier and its components



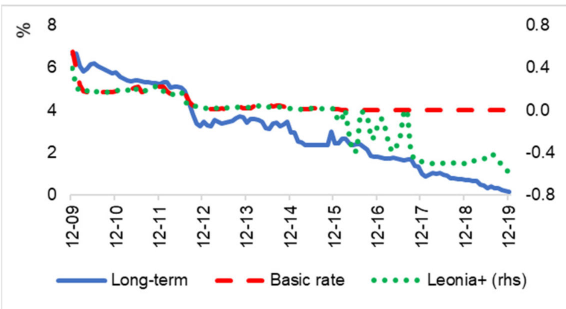
Source: BNB.

The components of the money multiplier showed different dynamics. The ratio of money in circulation to deposits showed a weak but steady upward trend, typical of periods with low inflation and low interest rates. The ratio of bank reserves to deposits was much more volatile and tended to decrease, typical for periods with higher credit activity.

7.2. Interest rates

The dynamics of the interbank money market in Bulgaria is generally strongly influenced by the ECB's policy. In September 2019, ECB again lowered the interest rate on the deposit facility, which affected the interest rate on the banks' excess reserves set by BNB, reaching -0.70%. Accordingly, this changed the environment of the operating of the interbank money market, with the LEONIA Plus index falling to -0.59%, or 15 base points lower than its August level (Figure 31). Regarding the traded volumes on the interbank money market in BGN, there was an increase in the second half of the year, which was concentrated in the segment of overnight transactions.

Figure 31. Interest rates



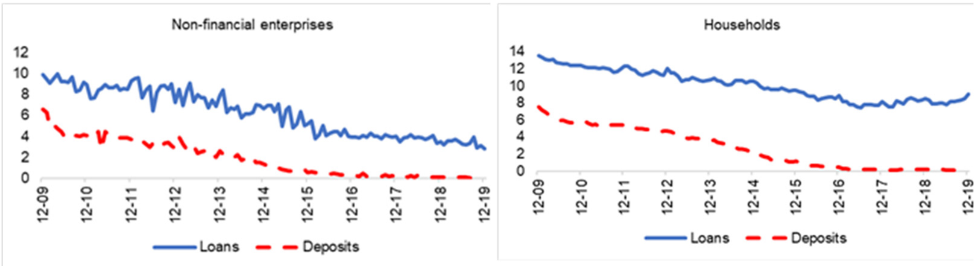
Source: BNB.

Concerning the market interest rates on deposits and loans, in 2019 there were no significant changes. Interest rates on deposits in BGN and EUR remained low, while those in USD fluctuated depending on the Fed policy and the exchange rate changes.

Over the past year, the trend towards a slight decrease of the interest rates on new loans continued, which was observed for loans in BGN and EUR to non-financial enterprises and for mortgage loans to households. For consumer loans, interest rates stabilized at levels close to the reported ones in the previous years.

Spreads between the interest rates on new loans to non-financial enterprises continued to narrow, but those to households remained high and tended to increase in the last months of 2019.

Figure 32. Interest rate spreads[47]



Source: BNB.

7.3. Development of the banking sector

In 2019, the banking sector continued to develop in the conditions of the trends imposed in the last few years – profit increased, concentration increased, credit activity increased, but remained far from the pre-crisis levels, despite the continuing decrease of the interest rates and the strengthening of the economic activity in the country.

Key indicators[48]

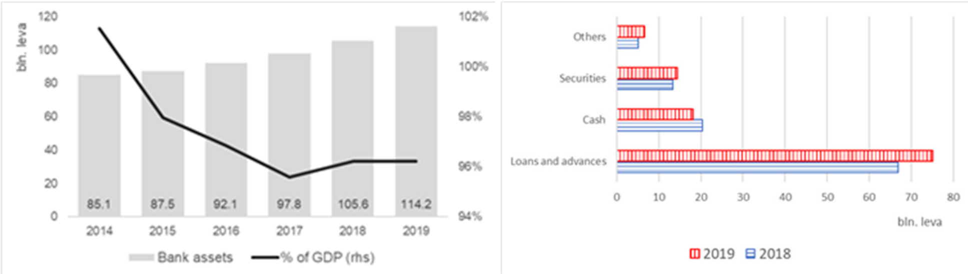
At the end of 2019, the assets of the banking system reached 114.2 billion BGN, or 8.6 billion BGN (8.1%) more than at the end of 2018. The ongoing consolidation process had an impact on the dynamics of all balance sheet items. At the end of 2019, the share of the balance amount of loans and advances was 65.8%, that of money, money balances with central banks and other demand deposits – 15.9%, and of securities portfolios – 13%.

The banking system had a high degree of concentration – the share of the 5 largest banks in the assets of the banking system was 62%. The liquidity coverage at the end of the year was 270% and the liquidity buffer was nearly 31 billion BGN. Gross loan portfolio of the banking system increased by 1.7 billion BGN (2.6%), including the increase of the receivables from other financial enterprises (by 923 million BGN or 25.2%), from

[47] For loans: new business, in BGN, weighted average; for deposits: new business, in BGN, up to one year.
[48] State of the banking system (http://www.bnb.bg).

households (by 532 million BGN or 2.2%), from non-financial enterprises (by 120 million BGN or 0.3%) and from "General government" sector (by 128 million BGN or 15.9%).

Figure 33. Bank assets



Source: BNB.

The gross amount of non-performing loans and advances at the end of 2019 was 6.1 billion BGN, and their share in the total amount of gross loans and advances decreased to 6.5% (from 7.6% at the end of 2018). The net value of non-performing loans and advances (after deducting the impairment losses specific to this classification category) also decreased – to 3.2 billion BGN as of December 31st, 2019. Deposits in the banking system at the end of the year amounted to 97.2 billion BGN. Deposits of households increased (by 1.8 billion BGN or 3.2%), as well as the ones of non-financial enterprises (by 878 million BGN or 3.2%), and of "General government" sector (by 379 million BGN or 16.6%). There was a decrease in the funds of credit institutions (by 359 million BGN or 6.3%) and other financial enterprises (by 6 million BGN or 0.2%).

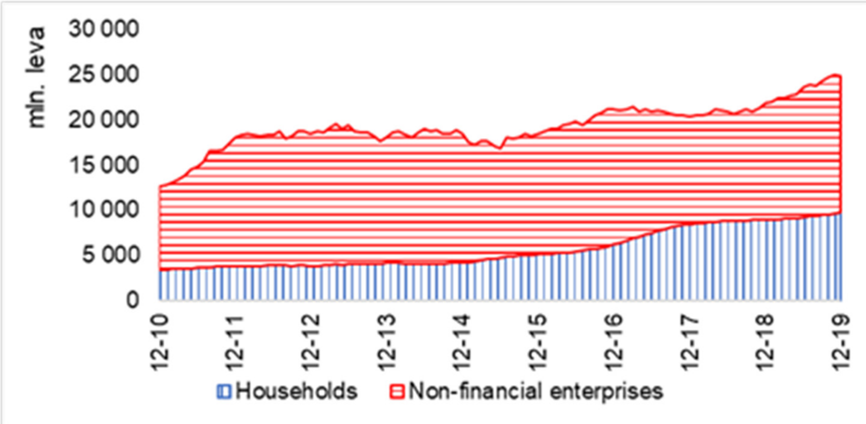
Crediting

Demand for loans continued to grow in 2019. According to BNB regular surveys, the increased demand for corporate loans was mainly due to the need for investment funds and for working capital and inventories. The decreasing level of interest rates, as well as the need for financial resources for refinancing, restructuring or renegotiating a debt, also had a positive impact. For consumer loans, the main factors for the increased demand were the demand for financial resources by the households for the purchase of goods for current consumption and long-term use. The interest rates and the favorable macroeconomic environment had a positive impact.

- *Loans to non-financial enterprises*

New loans to non-financial enterprises grew by 18% in 2019, which was a very good achievement compared to the growth of 8.1% in 2018. The growth during the year was uneven – in the first half the rates were close to those of the previous year, but in the second half of the year there was a significant increase of new loans. Faster growth (and a corresponding increase of the share) of loans in EUR continued at the expense of those in local currency. At the end of the year, the share of loans in EUR in the total amount of newly granted loans to non-financial enterprises amounted to 54.5%.

Figure 34. Volumes of loans for new business, annual data



Source: BNB.

- *Loans to households*

Volumes of new business for households increased by just over 8% on an annual base (6.8% in 2018). The highest contribution was made by housing loans, which continued to accelerate their annual growth to 18.7% in November (7.1% at the end of 2018). New consumer loans grew by nearly 10%, but this was a slowdown from the growth of 17.5% in 2018.

The contribution of “other loans” to the total growth of household loans remained negative as a result mostly of government repayments of loans granted under the National Program for Energy Efficiency to multifamily residential buildings, exceeding the volume of new loans under it.

7.4. Joining the exchange rate mechanism

In connection with the long-standing desire of the government to join the exchange rate mechanism and subsequently the euro area, Bulgaria had to request establishment of close cooperation with ECB. Total assessment of the banking system is a mandatory part of the process of establishing close cooperation between ECB and the national competent authority of an EU Member State with currency different than EUR. In the Annual Report 2019, we have identified the main challenges of taking such a step. There are strong arguments in support of the made decision and above all the fact that the banking union is perhaps the only possible means of filling the gaps in the structure of the European project. The 2008 global financial crisis has clearly shown that the existing supervisory mechanisms do not provide sufficient opportunities to prevent, manage and overcome crisis situations, since the growing integrity and interrelation of the European financial markets far exceed the capacity of the national supervisory mechanisms and the EU as well. At the same time, however, joining the banking union poses also potential risks, as there is a clear asymmetry in the treatment of euro area and non-euro area countries. Non-euro area countries will have to reproduce (by acts of the local supervisory authority) the ECB's supervisory decisions, which are not legally binding outside the euro area, i.e. they will bear all the responsibilities of banking union membership, but will remain excluded from the final decision-making on supervisory issues in the Governing Council of the ECB and will not have access to liquidity support from the ECB or the European Stability Mechanism as a potential source of funding for direct and indirect recapitalization of banks. Asymmetries and inequalities between euro area and non-euro area Member States are further deepened in the Single Resolution Mechanism, according to which a country that has joined the Single Supervisory Mechanism by "close cooperation" will automatically join.

In July 2019, the ECB completed and announced the results of its asset quality review and stress tests, with Bulgaria taking a commitment to take measures based on the findings. According to the principles adopted by the ECB, the overall assessment covered 6 Bulgarian banks – UniCredit Bulbank AD, DSK Bank EAD, United Bulgarian Bank AD, First Investment Bank AD, Central Cooperative Bank AD, and Investbank AD. The assessment consisted of an asset quality review and a stress test, both of which were based on the methodologies used by the ECB's banking supervision in its regular overall assessments of banks recently classified as significant or likely to become significant.

Table 5. Changes in the Common Equity Tier 1 (CET1) ratio and the need for additional capital

Bank name	Initial CET1 ratio (%)	CET1 ratio post-AQR (%)	CET1 ratio in baseline scenario (%)	CET1 ratio in adverse scenario (%)	CET1 shortfall (millions EUR)
UniCredit Bulbank AD	24.7	23.1	19.2	14.3	0
DSK Bank EAD	19.0	18.6	19.1	12.3	0
United Bulgarian Bank AD	21.5	21.1	20.2	11.8	0
First Investment Bank AD	15.7	4.5	4.1	-2.0	262.9
Central Cooperative Bank AD	16.4	16.2	15.7	8.0	0
Investbank AD	15.2	10.0	5.7	-3.1	51.8

Source: ECB.

ECB's official press release[49] has stated that the asset quality review (AQR) is of more prudential nature than accounting one, and it provides the ECB with a current assessment of the book value of banks' assets and determines whether the capital base of the bank needs strengthening. The asset quality review is complemented by a stress test, which shows how the capital positions of the banks would change in a hypothetical baseline and aggravated scenario over the next 3 years (2019-2021). The same methodology is applied for the stress test as for the stress test of the European Banking Authority in 2018. The results show that 4 of the 6 banks that have been subject to the overall assessment (UniCredit Bulbank AD, DSK Bank EAD, United Bulgarian Bank AD, Central Cooperative Bank AD) do not have a capital shortage, as their results do not fall below the relevant thresholds used in the asset quality review and the stress test. The results of First Investment Bank AD and Investbank AD show a capital shortage.

[49] ECB press release on 26.07.2019 "ECB concludes comprehensive assessment of six Bulgarian banks" https://www.bankingsupervision.europa.eu/press/pr/date/2019/html/ssm.pr190726~1b474e3467.bg.html.

8. Macroeconomic Indicators for Development of Bulgaria until 2022

8.1. Main assumptions for the forecast period (2020-2022)

The consequences of the fight against the new coronavirus are expected to be extremely unfavorable for the global economic development. Given the unusually high uncertainty, the forecasts of the main financial institutions, such as IMF, World Bank, ECB, etc., differ significantly and are subject to drastic changes. In these conditions, each forecast has a high degree of conditionality, and the risks to the forecast are not symmetrical – the probability of significantly more unfavorable development is much higher than that of a more favorable one. The current forecast assumes that the restrictive measures affecting the normal functioning of the "Service" sector will be lifted (but not entirely) at the end of the first half of the year and will not be reintroduced.

The macroeconomic forecast developed for the purposes of this report is based on medium-term development assumptions (until 2022) in terms of international prices and external demand, as well as on the government's economic policies set in the State Budget Act 2020 and its revision in April 2020. The macroeconomic forecast of ERI-BAS is based on macroeconomic information available as of May 26th, 2020 (Table 6).

Table 6. Main assumptions in the macroeconomic forecast

Indicator	Source	Reported data			Preliminary data	Forecast		
		2016	2017	2018	2019	2020	2021	2022
International price of crude oil *(index, 2005=100)*	IMF, WEO	80.5	94.9	122.8	110.3	64.0	68.1	71.9
International price of industrial and food products *(index, 2005=100)*	IMF, WEO	130.2	131.4	133.1	134.5	133.0	132.2	133.1
International price of metals *(index, 2005=100)*	IMF, WEO	116.6	118.7	126.5	131.2	111.6	105.3	106.3
Real GDP growth of EU *(index, 2005=100)*	IMF, WEO	114.1	117.4	120.1	122.1	113.4	118.8	121.5
World trade volume *(index, 2005=100)*	IMF, WEO	151.7	157.4	163.7	164.2	145.3	156.6	164.0
Running expenditures *(billion BGN)*	MF, mid-term budget forecast of April 2020, ERI-BAS	27.4	29.4	32.9	36.4	37.8	39.7	40.5
Contribution to the EU budget *(million BGN)*		859.5	888.2	1083.4	1193.1	1397.0	1420.0	1620.0
Budget balance *(% of GDP)*		2.0	0.9	-0.1	-1.1	-5.0	-2.5	-0.5
Domestic government debt *(billion BGN)*		6.8	7.6	6.1	5.8	8.7	10.3	10.6
External government debt *(billion EUR)*		10.3	9.2	9.1	9.1	10.6	11.4	11.5

The projected international prices and expectations for the external demand are based on the IMF's World Economic Outlook published in April 2020.

Development of the external environment

The immediate effects of the pandemic are expected to be significantly more severe for the global economy than the last global financial crisis. The scale of the impact will depend on the development of the pandemic, on the ability of the individual countries (and especially the leading economies) to resume economic activity after the forced restrictions. Since the EU countries are Bulgaria's main trading partners, it is natural to closely monitor what happens in these countries.

Table 7. EC forecasts for the real GDP growth in the EU countries

	2019	Winter forecast (February 2020)		Spring forecast (April 2020)	
		2020	2021	2020	2021
Greece	2.2	2.4	2.0	-9.7	7.9
Italy	0.2	0.3	0.6	-9.5	6.5
Spain	2.0	1.6	1.5	-9.4	7.0
Croatia	3.0	2.6	2.3	-9.1	7.5
France	1.2	1.1	1.2	-8.2	7.4
Ireland	5.7	3.6	3.2	-7.9	6.1
Lithuania	3.9	2.6	2.4	-7.9	7.4
Euro area	1.2	1.2	1.2	-7.7	6.3
Cyprus	3.2	2.8	2.5	-7.4	6.1
EU-27	1.5	1.4	1.4	-7.4	6.1
Belgium	1.4	1.2	1.0	-7.2	6.7
Bulgaria	3.4	2.9	3.1	-7.2	6.0
Latvia	2.1	2.3	2.4	-7.0	6.4
Slovenia	2.5	2.7	2.7	-7.0	6.7
Hungary	4.9	3.2	2.8	-7.0	6.0
Estonia	3.8	2.2	2.4	-6.9	5.9
Netherland	1.7	1.3	1.3	-6.8	5.0
Portugal	2.0	1.7	1.7	-6.8	5.8
Slovakia	2.3	2.2	2.6	-6.7	6.6
Germany	0.6	1.1	1.1	-6.5	5.9
Finland	1.6	1.5	1.0	-6.3	3.7
Czech Republic	2.5	2.1	2.2	-6.2	5.0
Sweden	1.2	1.2	1.5	-6.1	4.3
Romania	3.9	3.8	3.5	-6.0	4.2
Denmark	2.1	1.5	1.5	-5.9	5.1
Malta	4.5	4.0	3.7	-5.8	6.0
Austria	1.6	1.3	1.3	-5.5	5.0
Luxembourg	2.7	2.7	2.6	-5.4	5.7
Poland	4.0	3.3	3.3	-4.3	4.1

Source: European Commission.

According to the Spring 2020 economic forecast of the European Commission[50] (Table 7), the euro area economy will shrink by 7.7% in 2020 and will grow by just over 6% in 2021. Similar expectations are in terms of EU-27 – shrinking by 7.5% in 2020 and growth of about 6% in 2021. Compared to the Autumn 2019 economic forecast, the forecasts of growth of the EU and the euro area are about 9 p.p. lower. There is no doubt that Europe experiences an economic turmoil that has no equivalent since the Great Depression. The

[50] European Commission: Spring 2020 Economic Forecast: A deep and uneven recession, an uncertain recovery.

scale of the recession and the degree of recovery will be uneven, since they will depend on the rate of lifting the restrictive measures, on the importance of services like tourism for each economy, and on the financial resources of each country. **However, these differences pose a serious threat to both the single market and the euro area**.

The losses realized in 2020 can hardly be compensated before the end of 2021. Investments will remain lower and the labor market will not fully recover. The lasting effectiveness of the policy measures taken in response to the crisis at European and national level will be crucial in reducing the economic damages and facilitating a rapid and stable recovery, so that economic development can be directed to a sustainable development and inclusive growth.

- ***Labor market***. Unemployment is expected to increase, although the policy measures would limit its increase. Despite the fact that part-time work schemes, wage subsidies and business support should help limit job losses, the coronavirus pandemic will have a serious negative impact on the labor market. According to the forecasts, unemployment rate in the euro area will increase from 7.5% in 2019 to 9.5% in 2020, before decreasing again to 8.5% in 2021. Similar, but still slightly lighter, are the expectations for the EU as well – unemployment rate to increase from 6.7% in 2019 to 9% in 2020, and then fall to around 8% in 2021. Countries with a high share of short-term contract workers and countries in which much of the workforce depends on tourism are particularly vulnerable.
- ***Inflation***. Consumer prices are expected to fall in 2020, both due to lower demand and a sharp drop of oil prices. This effect will be much stronger than the effect of price increase as a result of supply disruptions related to the pandemic. The current forecast for inflation measured by the Harmonized Index of Consumer Prices (HICP) in the euro area is 0.2% in 2020 and 1.1% in 2021. For the EU, the respective values are a drop to 0.6% in 2020 and 1.3% in 2021.
- ***Budget deficit***. The fiscal countermeasures taken by all countries will lead to a larger budget deficit and, consequently, government debt. This process runs in two main directions: first, the “automatic stabilizers”, such as social security payments; second, fiscal discretionary measures. The combined impact of the two types of measures is expected to lead to a sharp increase of the budget deficits in the euro area and the EU from just 0.6% of GDP in 2019 to around 8.5% in 2020, before falling again to around 3.5% in 2021. After the downward trend observed since 2014, government debt/GDP ratio is also expected to increase. According to forecasts, in the euro area this ratio will increase from 86% in 2019 to nearly 103% in 2020, and then fall to about 99% in 2021. In the EU, the respective increases are expected to be from 79% in 2019 to about 95% this year, then fall to 92% next year.
- ***High uncertainty***. Despite the extremely negative forecasts, they have extremely high degree of uncertainty and additional risks of worsening of the forecasts values, especially in the case of a second wave and/or longer social distancing measures. The presented forecasts are based on the assumption that the restrictive measures will be lifted after May and will not be reintroduced. The risks of this prospect are also extremely high and are related to the worsening of the forecast values. If the pandemic is more severe and longer than currently expected, this could lead to a significantly

larger decrease of GDP than projected in this forecast. With a lack of a stable and timely common recovery strategy at EU level, there is a risk that the crisis will lead to serious distortions of the single market and to deep economic, financial and social disparities between the euro area Member States. Also, there is a danger that the pandemic will lead to more drastic and permanent changes in the attitudes towards the global value chains and the international cooperation, which will have a negative impact on the highly open and interrelated European economy. The pandemic can also cause permanent damages through bankruptcies and long-term damages to the labor market. The threat of imposing duties after the end of the transition period between the EU and the United Kingdom could also slow down the growth, though to a lesser extent in the EU than in the United Kingdom.

<u>Regarding the internal environment</u>

As a small and highly open economy, Bulgaria is highly dependent on the development of the external factors. More specifically, Bulgaria is subject to the economic cycle in the euro area, since the ECB's monetary policy is transferred to Bulgaria quickly and almost mechanically through the mechanisms of the currency board, the integration of the banking sector and the high trade commitment. There are enough arguments to state that the main trading partners from the euro area (primarily Germany and Italy) have entered the negative phase of the business cycle long before the new virus. Until recently, the growth in the euro area was largely due to a strong expansionistic policy, which favored increase of the financial asset prices, maintaining low price of the borrowed funds of the banks, cheaper servicing of already granted loans to households and business, and stronger demand for new loans. This policy was coming to an end and the question on the agenda was what would be the nature and what would be the driving forces of growth in the medium and long term, given that it would not be possible to rely on the effects of the monetary policy, but the problem with indebtedness not only was unresolved, but it even got worse. The pandemic changed everything. **The emerging new cycle of fiscal and monetary incentives will be much stronger than the previous one, but there are serious concerns that its effectiveness decreases**.

The economic prospects for Bulgaria for 2020 and the next two years are unfavorable, and the risks remain high. To the risks related to the pandemic, the external environment and the changes in the external demand, should be added the internal risks related to the traditionally unstable political environment, which is likely to become increasingly more unstable in view of the coming parliamentary elections. The expectations for the forecast period can be summarized in the following directions:

Bulgarian economy is open and highly dependent on the external demand and the external financing. Given the pandemic and the escalating trade war, it can be assumed that the world trade volumes will be maintained and even reduced. This, together with the limited export potential of the economy and the unfavorable structure of the exports, do not give grounds to rely on exports as a significant factor of growth in the short and medium term. The effect of the pandemic in the first year will be stronger on the exports than on the imports, but further on the negative net exports will have a restraining effect on the economic growth rates.

External financing, in the form of foreign direct investments, will decrease sharply. The main source of external funding will be funds from various European programs designed to ease the effects of COVID-19. However, the risks are high, as it is not yet clear what funds Bulgaria will receive and where they will be directed as a priority.

Taking into account the above two factors, it can be concluded that real GDP growth in the first year of the forecast will decrease by about 5-6%. The more favorable forecast (compared to the EC forecast) is due to the fact that the first quarter of the year was weakly affected, and the isolation measures began to be lifted progressively from mid-May. Moreover, compared to the more developed European countries, Bulgaria will be less affected by the collapse of the global value chains due to its lower degree of integration into the international division of labor.

The expectations for the price dynamics in 2020 are entirely influenced by the decrease of the domestic and external demand, as well as the sharp drop in the energy prices. Inflation will remain low, and periods of deflation are not ruled out. In the medium term, inflation dynamics will be determined by the success of the discretionary measures for economic recovery.

The trade balance of goods is expected to worsen sharply this year and to gradually improve in the medium term. Net exports in the coming years will have a negative contribution to GDP growth. This trend can be counteracted only by a sharper and more positive change in the “terms of trade” indicator, but such change is not expected. From the point of view of the balance of payments, a compensating factor may be the trade balance of services (particularly tourism), if Bulgaria manages to quickly overcome the consequences of the pandemic and open new sectoral niches.

The positive trends in the development of the labor market were abruptly stopped with the introduction of the restrictive measures. The shock will be strongest in 2020, with no reason for great optimism in the short term. The hopes relate to the introduction of more active state programs for employment protection, including through modifying the 60:40 program. An employment increase can be expected in 2022 and it will be accompanied by a gradual increase of labor costs per production unit. Given the low level of wages, this will not have a significant impact on the inflation dynamics and the export competitiveness.

Thanks to the conservative fiscal policy in the recent years, Bulgaria has met the crisis with a high level of the so-called “fiscal space”, which allows the government to engage in more active and longer-term programs to protect employment and social assistance to those with biggest need, without this leading to excessive debt accumulation.

Regarding the development of the financial sector, the expectations are optimistic. The funds attracted from the non-governmental sector in the banking system will continue to increase. This will be facilitated by the increased economic activity, the maintenance of the savings rate, and the growth of the external private transfers by non-residents. Interest rates on deposits will remain low, but with a trend to increase gradually, which may also play a role (though limited) in attracting resources to the banking system. The more significant importance of restoring the role of the banking sector in terms of its mediatory functions can be expected if the banks increase their loan portfolio.

Assessment of the measures taken so far

There should be no doubt that ***a working economic package will be expensive, and with an unclear economic effect***. It is not yet clear which sectors and groups in the society will need the most support – there is no such experience yet. For the first time modern humanity faces such a large-scale and rapidly spreading infection. The analogies with previous episodes of recession (especially the so-called "Great Recession" of 2008-2009) are misleading since they have been caused by the human activity. It makes more sense to look for analogies with natural disasters, but they are associated with material destructions and are mostly local phenomena, which also makes them unsuitable for comparisons. Moreover, the situation now is very different from previous episodes of recession (whether caused by human error or natural disasters), because, regardless of the desire and ability to consume, people cannot realize it in full and are forced to abandon their usual stereotype of behavior and consumption. On the other hand, the manufacturers themselves and a large part of the sales network are progressively cut off from both customers and suppliers. As a result, there is a rapid decrease of the economic activity and the economic growth rates drop sharply.

The measures taken so far can be assessed by various criteria:

- **Implementation speed of the support measures**. The budget revision became a fact on 09.04.2020, which can be considered a relatively quick response. Other measures, mainly in the financial area, were announced even earlier.

- **Depth of the measures.** Given the already announced economic packages in some of the leading countries (for example, USA and Germany), which reach and even exceed 10% of GDP, the fiscal measures of the Bulgarian government are rather modest (currently about 2% of GDP), but meet the country's capabilities and will certainly undergo changes in the course of the crisis. At this stage, it is difficult to make an accurate assessment, since part of the support will be provided upon request and upon proof of mandatory conditions of use, but here we assess rather the intentions of the government than the actual implemented support. ***We believe that the taken measures can be extended and deepened. From this point of view, another budget revision might be needed***.

    - We assess positively the decision to increase the maximum amount of the new government debt to 10 billion BGN. Although the budget deficit is unlikely to reach such levels, this provision creates flexibility, which is extremely useful in times of crisis. Questions like whether this debt will be absorbed in practice, in what amount and in what form it will be, are different matter. Even if it is fully absorbed, it does not have to be spent.

  - The forecast shows that there will probably be made budget expenditures higher than 40% of GDP, which is a formal violation of Art. 28(1) of the Public Finance Act. In the event of a longer crisis, Art. 28(2) of the same act can also be violated. It may be right to consider an appropriate legislative change.

  - Concerning the measures taken by BNB (however conditional, given the limitations of the currency board), we believe that at this stage they are adequate. If the crisis deepens, a change in the minimum required reserves may be considered.

- **Scope of the measures**. Some of them, like the delay of corporate tax payments, are broad and universal in scope, since they apply to the entire business sector. Others target certain vulnerable risk groups, the scope of which at this stage can only be determined approximately (for example, patronage care with food and medicine delivery for tens of thousands of lonely elderly people and people with disabilities in the country; food packages for about 40 000 socially weak persons). The scope of other measures will become apparent in the coming weeks – for example, the “”60:40” measure, under which more than 11 500 applications have been submitted for nearly 180 000 employed as of the end of May; interest-free loans of 1500 BGN/month for persons affected by the crisis; one-time assistance of 375 BGN for single parents.

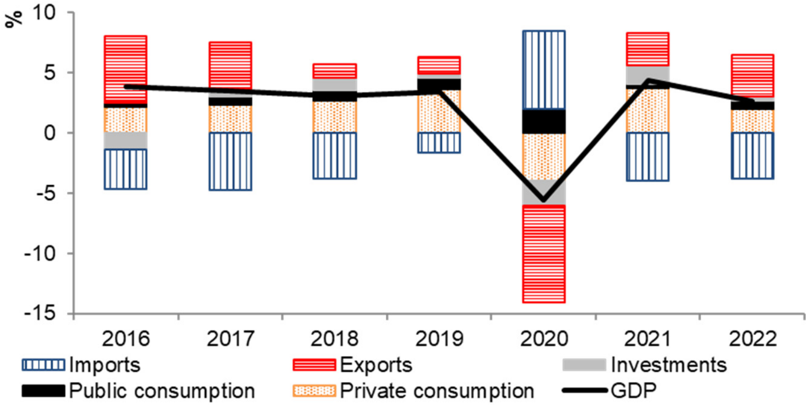
- **Keeping the jobs**. Bulgaria experiences a deficit of human capital, which has deepened in the recent years. This means that all companies that now dismiss personnel are likely to have problems with its restoring. Every effort should be made to keep the personnel, especially in the small and medium-sized enterprises. In this respect, the assessment of the “60:40” measure is not one-sided. It is good that the state makes efforts to support the business, but the measures should be bolder and more decisive. ***In this form, many of the companies that are most affected will probably not be able to benefit from the measure, since they will not be able to provide their part, and that limits the scope and the impact of the scheme***. It is worth assessing whether it would be more economically justified for the state to cover 60% of wages without requiring the participation of the business too. This may save money, which the state will later use to make an additional transfer to the State Social Security.

8.2. Dynamics of the main indicators in the projected period

- Taking into account the worsening of the external environment, as well as the NSI economic indicators, it can be assumed that the decrease of the economic growth rates will be biggest in the second quarter of this year, followed by a recovery that will continue throughout 2021.

- Domestic demand, and respectively private consumption, will decrease sharply in 2020 (by about 6%). Public consumption will increase, but will not be able to compensate for the decrease of the private consumption. The projected growth in 2021 is rather “statistical”, i.e. suggests some recovery to the pre-crisis levels. It will be possible to talk about real growth of consumption only in 2022. As in previous years, the consumption dynamics will be determined by the increase of wages and the employment state. Investments will be influenced mainly by the absorption rates of EU funds and aid.

Figure 35. Contributions to projected economic growth by final consumption components



Source: NSI, own calculations.

- In the short term, the potential economic growth in Bulgaria will be negatively affected by the crisis, and it is expected to decrease to 1.5-2% annually. In the medium term, we expect a recovery to its usual levels of about 3-4%. The increase of the investments will be determined by the EU anti-crisis measures and by the end of the programming period 2014-2020 and the expectations for accelerated absorption of European funds.
- The decreased domestic demand and the drop of the economic activity will have an immediate effect on the price dynamics. For 2020, the average annual inflation is expected to be around 1% and to accelerate slightly over the next two years. Given the consumption restructuring, the prices of goods and services from the small consumer basket will grow significantly faster than the general index.
- The rates of economic activity of the population will return to the values of a decade ago. The accumulated experience shows that employment recovers on average 18 months later than the other macroeconomic indicators. There are some reserves for increasing the economically active people with appropriate social policies, stable economic environment, targeted support to specific employers to create sustainable jobs. In addition to the immediate employment factors, as in previous years, we will rely on the restructuring of the budget funds for active policies in favor of vocational training and services for the registered unemployed; the use of ESF funds through HRD OP and other donor funds.

Table 8. Forecast for the macroeconomic development of Bulgaria until 2022

Indicators		Report			Preliminary data	Forecast		
		2016	2017	2018	2019	2020	2021	2022
Real sector								
GDP in current prices	million BGN	94130.0	101042.5	109694.8	118668.8	114336	121828	129203
GDP growth in constant prices	%	3.8	3.5	3.1	3.4	-5.6	4.4	2.6
Private consumption	%	3.5	3.8	4.4	5.8	-6.2	5.9	3.1
Public consumption	%	2.2	4.3	5.3	5.5	12.2	1.5	3.3
Gross fixed capital formation	%	-6.6	3.2	5.4	2.2	-10.6	8.7	1.9
Export of goods and services	%	8.6	5.8	1.7	1.9	-12.1	4.4	5.6
Import of goods and services	%	5.2	7.4	5.7	2.4	-9.6	6.1	5.8
Prices								
Average annual HICP inflation	%	-1.3	1.2	2.6	2.5	1.1	2.5	2.7
GDP deflator	%	2.4	3.7	5.3	4.7	2.0	2.1	3.3
Labor market								
Employment rate (population aged 15-64)	%	63.4	66.9	67.7	70.1	68.7	66.8	68.9
Unemployment rate (population aged 15-64)	%	7.7	6.2	5.3	4.3	8.3	12.7	11.8
External sector								
Current account	million EUR	1244.0	1537.4	773.7	2452.3	435	-241	37
Trade balance	million EUR	-984.4	-765.8	-1858.0	-1685.7	-2011	-2665	-2329
Capital account	million EUR	1070.9	530.4	789.8	891.3	988	1028	1059
Financial account	million EUR	4445.6	2324.3	3017.1	2562.6	1 424	786	1097
FDI in the country	million EUR	1312.5	1759.4	1520.2	1348.0	674	876	1051
Gross external debt	million EUR	34221.4	33397.4	33475.9	34071.3	35947	37638	39898
Current account	% of GDP	2.6	3.0	1.4	4.0	0.7	-0.4	0.1
Trade balance	% of GDP	-2.0	-1.5	-3.3	-2.8	-3.4	-4.3	-3.5
Capital account	% of GDP	2.2	1.0	1.4	1.5	1.7	1.7	1.6
Financial account	% of GDP	9.2	4.5	5.4	4.2	2.4	1.3	1.7
FDI in the country	% of GDP	2.7	3.4	2.7	2.2	1.2	1.4	1.6
Gross external debt	% of GDP	71.1	64.6	59.7	56.2	61.5	60.4	60.4
Financial sector								
Monetary aggregate M3	million BGN	79581.5	85727.3	93255.7	102469.3	103289	113146	121303
Loans to non-financial companies and households	million BGN	51676.3	54025.2	58857.8	64589.0	68423	77581	81672
Monetary aggregate M3	%	7.6	7.7	8.8	9.9	0.8	9.5	7.2
Loans to non-financial companies and households	%	1.8	4.5	8.9	9.7	5.9	13.4	5.3
Foreign currency reserves	million EUR	23898.6	23662.1	25072.2	24835.6	23373	23870	25793
Coverage of the imports of non-factor services with foreign reserves	months	10.0	8.7	8.5	8.2	8.6	8.0	7.9
Fiscal sector								
Budget revenues	million BGN	33927.8	35313.6	39647.9	44086.9	43048	45334	49657
Including aids	million BGN	2906.6	1520.6	2112.8	2463.6	4001	3411	2713
Budget expenditures	million BGN	32059.8	34441.3	39745.6	45386.8	48725	48336	50256
Budget balance	million BGN	1868.0	872.3	- 97.7	- 1299.9	- 5677	- 3002	- 598
Budget balance	% of GDP	2.0	0.9	-0.1	-1.1	-5.0	-2.5	-0.5
Debt of "General Government" sector	% of GDP	28.6%	25.4%	21.8%	19.8%	25.8%	26.8%	25.7%

- Given the expected collapse in the volumes of the global foreign trade, the short-term effects on the Bulgarian economy will be very strong. For this year, the real volumes of exports are expected to decrease by more than 12%, and those of imports – by around 10%. Once the pandemic is under control, the volumes will begin to recover as early as next year. The volumes of imports (which generally have lower price elasticities) are likely to recover faster, which means a higher deficit on the trade balance. In the longer term, the statement that the country's export potential has been reached remains valid, as well as that the external sector should not be expected to make a significant contribution to GDP growth. This statement is reinforced by the fact that the increase of purchasing power of the population will lead to higher imports and, consequently, to more negative net exports.

- According to the regulations of the currency board, the decrease of the foreign reserves should be reflected also in a decrease of the reserve money. While maintaining the current trends in the dynamics of the money multiplier, this means also a decrease of the supply of broad money and, accordingly, smaller lending opportunities. By overcoming the shock of the pandemic, we also expect a recovery of the usual increase in the money supply by about 8-10% per year in the medium term.

- It is typical of periods of crisis that budget revenues and expenditures increase their role in the redistributive process, and fiscal policy is necessarily expansionary. As of the date of this forecast, there are requests for reduction of VAT rates for certain range of goods, but this is not reflected in the forecast, as no law has been adopted yet and the range of included goods and services is not clear.

9. Conclusions and Recommendations to the Economic Policy

9.1. Conclusions

Until the outbreak of the new coronavirus pandemic, Bulgaria's economy developed rather positively. The distinguishing features of the development type were the following:

- Stable, though modest, rates of economic growth. The positive was that economic development was carried out while maintaining budgetary discipline and with a current account surplus, which showed a lack of macroeconomic imbalances. There was a rapid increase of wages, accompanied by an increase of employment, but without the economy losing competitiveness, as evidenced by the growing export volumes and the dynamics of the real effective foreign exchange rate.

- The economy was undergoing a transformation characterized by an increasing role of the domestic demand in terms of the economic growth. As already mentioned, the assessment of this trend was multisided – the rates were lower, but more sustainable, which was hardly optimal in terms of a need for catch-up development.

- The increase of the incomes and the positive labor market expectations had a positive impact on the private household consumption and indirectly on the economic growth. Having in mind the end of the 2014-2020 programming period, public investments increased over the last 2 years due to the need to finalize capital expenditures planned under the operational programs.

- The demographic crisis caused by aging of the population and the external migration deepened.

- Foreign direct investments had less and less influence, as their volumes were already permanently lower than the transfers of the Bulgarians working abroad. However, the decrease of the volumes was accompanied by an improvement in the structure of the capital inflows, which were more and more directed towards industrial enterprises at the expense of the purchase of real estate. It can be expected that in the medium term these investments will make an important contribution to the restructuring of the industrial sector and to the growth of the export of goods with higher added value.

- The decrease of the level of the government debt over the last 5 years is a factor for raising the rating. Together with the low indebtedness of the households and the private sector, it is a buffer against external shocks.

- Financial system, dominated by the banking system, remained stable, but rather neutral to the dynamics of the real sector. To a large extent, it was determined by the limitations of the currency board, but the dynamics of the domestic credit, especially with regard to lending to small and medium-sized enterprises, remained unsatisfactory.

With the introduction of the restrictive measures concerning the imposition of the so-called "social distancing", the economy began to change. At this stage, it is early to prove one or another statement about the future development, but the following assumptions can be made:

For a large part of the economy, the crisis will be rather short-term (lasting two to three quarters) and moderately deep (on an annual base, the real decline in the economic activity will be in the range of 5-7%). Recovery will begin at the end of the third quarter and will continue throughout 2021, at the end of which the pre-crisis levels will be reached. Real growth will begin in 2022.

Potential GDP will decrease due to the lower labor supply and lower investments. A counteracting factor will be the increase of the total factor productivity of labor, which can be expected as a result of the acceleration of automation and robotics in the replacement of many of the human activities in the production process, imposed by the social distancing.

Foreign trade, which had already lost its leading position in terms of the growth factors, will remain suppressed. The reasons are related mostly with the processes of deglobalization and restructuring of the supply chains. The initial shock will be felt more quickly in the export volumes, but will also be quickly transmitted to the imports too, especially to the imported goods used in the manufacture of export products and those with high price elasticity.

Regarding sectors, there will be more serious changes. The "winning" sectors will be "Construction", "Information and Telecommunications" and "Agriculture". The "losing" sectors will be "Trade, transport and hotels and restaurants" and "Real estate". In the "Industry" sector, there will be diverse processes running depending on the specifics of the manufactured products and the degree of participation in the international division of labor. Productions and subcontractors closely related to the supply chains will suffer a strong negative shock this year, and will gradually recover next year. Other productions will remain slightly affected and may even benefit (in some branches of the light industry, pharmaceuticals, chemical industry). As a whole, it can be assumed that the industry will not be seriously affected. The same applies to the "Financial and insurance services" sector, where significant changes are unlikely.

Labor market, as in previous crisis periods, has been hit very hard and will recover more slowly. There will be also a slowdown in the wage growth, which will keep the private consumption growth low. The demographic crisis will continue to have a negative impact, but it is possible that some of the people who have returned during the pandemic will stay permanently (or just longer) in the country. Their possible inclusion in the labor force will help to faster stabilize the labor market.

There will hardly be inflationary pressure this year or the next. In the short term, deflationary processes are much more likely to occur, since the domestic inflation factors (increased demand, rising administratively controlled prices, supply problems, excessive liquidity) will be permanently suppressed. In the longer term, inflationary pressure is possible, but it is more likely to be caused from the outside. The possible channels (or a combination of them) are several: monetization of the predominant part of the newly issued debt; sharper depreciation of the euro on the international markets; rapid increase of energy and basic food prices.

In the short and medium term, the fiscal policy will be expansionary. We will have to abandon (at least for certain period of time) the idea of a balanced budget. It is very likely that after the upcoming parliamentary elections next year, some kind of tax reform will also be launched with a view to a fairer distribution of the burden. This will require a reconsideration of the concept of the proportional taxation and introduction (at least as a first step) of a minimum non-taxable income. Later, a gradual reduction of the share of indirect taxes at the expense of income taxation can be considered. It is almost certain that an increase of the social security contributions will soon be necessary.

Banking system met the crisis well-capitalized and without serious problems with "bad loans". The provision level was also good, which allowed the initial shock to be experienced relatively light. Deferring due liabilities gave a "breath of fresh air" to the indebted legal entities and individuals, but the problems were not solved, just postponed. The state of the banks will largely depend on the recovery rates of the economy. The measures taken by the government in terms of easing the lending conditions by covering part of the costs, are unlikely to have a significant impact on the lending process. The measures of BNB, which canceled the increase of the countercyclical buffer and took some measures to increase liquidity in the banking system, have a stronger effect. It can be expected that the problems in some of the banks will worsen, which will stimulate acceleration of the processes of bank consolidation.

9.2. Recommendations to the economic policy

A significant part of the economic policy recommendations can be found in our previous reports. We consciously repeat them and will continue to do so since we believe that they are well-intentioned and beneficial to the society as a whole.

The economic growth reported over the last three years may seem high compared to the EU average, but it is still far from the desired levels needed for a catch-up development. The economy is strongly dependent on foreign investments and cannot generate high and sustainable growth on its own. It is more than clear that the most important thing for the Bulgarian economy is to achieve long-term and lasting economic growth of **at least 5% per year**. Only this would provide more noticeable growth in incomes and prosperity, leading to a reduction of social tension that has accumulated over the years. The question is what should be the role of the state, particularly the fiscal policy, in ensuring such growth.

It should be acknowledged that the model based on seeking economic advantages through tax competition and focusing on indirect taxes is exhausted. An academic debate on the role of the tax system should be initiated with the participation of experts from all areas of the public life. The issue is not limited only to the proportional tax, but to the tax system in general. Discussions should consider the effectiveness of the tax rates, how fairly the different strata of the society are taxed, where the focus in the tax structure should be placed, and how to use the different tax incentives in their best. ***Changes in the tax system might not solve all the accumulated problems in the economy, but they might help to redistribute the burden to the strata with higher tax capacity***.

Macroeconomic governance must realize that the process of planning and executing the state budget has an impact on the behavior of the investors. The influence of the type and nature of the realized public investments is significant.

The problems in the national economy cannot be solved by an elementary quantitative change of numerical management economic parameters. It is necessary to cultivate and maintain a predictable sustainable socio-economic environment that will naturally *"grow"* initiative economic agents. Poor actions predictability at macroeconomic management level undermines investors' trust, which is a key effective premise for positive economic decisions of perspective significance. This finding is valid even more in times of crisis, like we experience now, when the role of the state grows enormously.

Based on the conducted analysis, assessments and identified risks to the economic development, the following recommendations to the economic policy can be formulated:

- Maintaining sustainable economic growth rates depends on many external and internal factors: acceleration of the credit activity in the country, improvement of the international situation, absorption of the European funds directed to Bulgaria in the programming period 2014-2020. In this regard, there is unanimity that the role of the government is mainly related to maintaining macroeconomic and financial stability and accelerating the rates of absorption of European funds. However, this is considered just necessary but not sufficient condition for accelerating the growth.

- The measures, planned in the government's updated medium-term framework for 2020-2022, are expected to have a moderate social impact and short-term influence on the economic growth by generating greater demand. This type of measures includes mainly an increase of the pensions and the minimum wage. However, these measures could have also a negative impact on the labor demand and the share of the informal economy in the country.

- The measures for easing the consequences of COVID-19 were timely but generally timid and insufficiently consistent. There are already good reasons to state that the consequences of the crisis will be longer than expected. This requires the development of a special program involving specialists from different fields – academia, trade unions and employers. Additional efforts are needed to make the most of the funds provided under the various European programs.

- We recommend restructuring of the public (current and investment) expenditures and radical changes in several main areas:

    - education (with focus on school education);

- healthcare (development of primary outpatient medical care);
- waiver of the NHIF monopoly;
- pension reform in line with the demographic structure, for strengthening the role of the second and third pillars and reducing the transfers from the state budget;
- economic infrastructure – water (water supply, sewerage, purification and hydro-amelioration), electricity transmission system, and transport (national road network, railway infrastructure, ports and airports);
- more fair and more rational tax system – bold reforms in the tax legislation are needed, which in the medium term will lead to:
  - ✓ gradual increase of the burden of the income taxation and reconsideration of the benefits of the proportional taxation;
  - ✓ decrease of the burden of the indirect taxes on the consumption;
  - ✓ increase of the importance of the property taxation (by expanding the tax base, progressiveness of the taxation and decrease of the tax concessions).

- The described important and structural reforms must be carried out after a careful "impact assessment", as far as it may be necessary to choose between temporary higher deficit and long-term effects. In this regard, it would be very useful if the assessment of the expected real consequences (expenditures, benefits and redistributive effects) of the proposed/existing regulations (laws, decrees, regulations, etc.) is properly regulated and institutionalized. This will guarantee:
  - better, more responsible and more transparent policy decisions;
  - fewer in number, clearer and better quality regulations;
  - decent (and nationally responsible) participation in the legislative process at EU level.
- More specifically (and relatively faster), steps can be taken that would have a positive fiscal effect and at the same time not have a negative impact on the economic activity. Some of the more important such steps are:
  - improving the technology of budget forecasting and planning;
  - active management of public property and analysis of the activity of the state participation in the economic activity in regards to its minimization;
  - search for opportunities to reduce the current expenditures in the public sector;

  - activating the process of fiscal decentralization.

- Activating the policy for attracting foreign direct investments.

- The main means for achieving sustainable economic growth is to achieve high productivity growth of the used production factors, including the labor resource. With the outlined permanent imbalances in the supply and demand of labor in certain professions and economic activities, only the high growth of labor productivity will compensate for the increase of the average wage in the coming years.

- Priority of the government policy should be to increase the efficient use of labor resources, and not so much to reduce the unemployment rate in the country (if these two goals are alternative in some cases).

- Bulgaria does not have a long-term vision and strategy regarding migration. It is necessary to clearly outline the priority policies and mechanisms for reducing the emigration attitudes among the Bulgarian population and for lasting labor integration of the immigrants.

- Creating better conditions for work realization at regional level by reducing the existing regional imbalances is a step towards maintaining the workforce in the country.

PART TWO

FOCUS: REFORMS IN BULGARIA’S PENSION SYSTEM – CONTENT, RESULTS, CHALLENGES AND SOLUTIONS

Political decisions concerning pension insurance have a long-term effect due to the fact that any change in the parameters of the pension model affects its financial sustainability, not only in the short term, but also in the medium and long term. Therefore, the impact of each legislative initiative should be assessed not only and not so much regarding the budget year, but literally for the full life cycle of an age group – from the beginning of the active work life (which is the beginning of the mandatory inclusion in the pension system) till death, and even after that, since there are also survivors' pensions. Based on these specifics, this part of the Annual Report of Economic Research Institute at BAS chronologically traces the reforms in the pension system in the period 1990-2019 and assesses their impact in the short and medium term on two main parameters – ***adequacy of the pension payments and financial sustainability of the established pension model***.

At macro level, the adequacy of the pension payments relates to the division of the currently produced GDP between the active generation and the generation of pensioners. Barr and Diamond (2006) point out that future GDP is critical for the analysis of the pay-as-you-go pension systems, since the consumption of the future pensioners will be generated by what will be produced in the future, mainly by the generation of their children. At individual level (micro level), the pension system is a means of income distribution through the whole life cycle, a means of consumption smoothing in the life cycle, or a means of income distribution over time – from the period of economic activity to the period of old age. The theoretical foundations for defining the pension system at micro level come from the theory of consumption and savings, including the life cycle model proposed by various authors: Modigliani and Brumberg (1954), Ando and Modigliani (1963), Friedman (1957).

Pension system sustainability relates to the fiscal and financial balance between revenues and liabilities in the pension schemes. In order to be sustainable in the long run, the state pension system in Bulgaria should be able to sustain the impact of an aging population and the decrease of the number of people of active age. In case of disturbed balance, the deficit is covered by the state budget, without, however, leading to destabilization of the public finances. The subject of the analysis here are other main social and economic indicators characterizing the pension system, such as system dependency ratio, revenues from social security contributions, amount of subsidies to cover the deficit, share of pension expenditures as a percentage of GDP, and others.

Due to the specific features of the two main types of pension schemes (pay-as-you-go and capital-funded), they are subject to analysis, evaluation and recommendations for improvement in two separate chapters. This division is only formal, because the pay-as-you-go and capital-funded pension systems should be considered not as opposing, but as complementary sub-systems of the Bulgarian pension model. Chapter 1 in this part contains analyzes and evaluates the content of the more significant reforms in the public pension system in the period 1990-2019. The structure of chapter 2 in this part relates to the different types of capital pension funds and covers the period 2008-2019, due to their later establishment and their real weighting as a factor in the pension insurance and the country's economy.

1. Development of the Public Pay-As-You-Go Pension System

1.1. Genetic weaknesses of the pension system at the beginning of the transition to a democratic society and market economy

The main weaknesses of the pension insurance system in Bulgaria in the early 1990s are the following:

- *Too liberal conditions for access to the social security system.* Low retirement age (55 years for women and 60 years for men) and easily achievable length of service requirements (20 years for women and 25 years for men) for employed in third category of labor, generous early retirement schemes for the employed in first and second category of labor, are also a bad legacy of the former system. At the very beginning of the reforms, the political situation has further accumulated future, difficult-to-fulfill liabilities of the social security system. With unemployment becoming more significant, this has led to a sharp deterioration of the dependency ratio in the insurance system.
- *Strong redistribution processes and application of equalization principles*, including "donation" of insurance rights, without real insurance coverage (compensation) by the state – periods of maternity, unemployment, military service, etc. Such "generosity" (at someone else's expense, however) was due to the desire to create "more fair" and "more social" insurance, as well as to the fact that at that time the social security budget was an integral part of the state budget.
- *Absence (with small exceptions) of differentiation of the social security contributions by types of social security risks*. The single social security contribution ("for all insurance cases") was also a consequence of the symbolic autonomy of the social security system under the old political system and at the beginning of the democratic changes. After its financial separation from the state budget in 1996 with the Social Security Fund Act (adopted in November 1995) and the institutional independence of the system in the face of National Social Security Institute (NSSI), this anachronism should no longer exist.
- *Placing almost the entire insurance liability on the employer*. This feature of the social security was due to the legacy of the totalitarian system, where "mother state" was the only employer, which took care of everything and everyone. Of course, the absence of differentiated contributions for individual social risks also prevented the employed people from covering part of the insurance liability.

Most of these weaknesses in the pension system at the beginning of the transition to democracy and market economy were genetic in nature. These weaknesses became a main cause of some main problems, such as chronic financial deficits and future financial instability; constantly increasing insurance contributions and low collection rate; high social burden on employers and, through them, on employed; disturbed social fairness and low pensions.

1.2. Pension reforms in the period 1990-2000 – an attempt to respond to the genetic weaknesses

In the pension system model, operating until 2000, coexisted post-socialist forms and some new forms typical of the countries with developed market economies. This was due to the fact that the mentioned weaknesses necessitated some, though not radical, changes in the social security. In the spring of 1991, with Decree №43 of the Council of Ministers, the amounts of the social security contributions were differentiated according to the categories of labor and their amount increased. Instead of 30% social security contribution (same for all categories of labor), introduced were 35% contributions for employed in third category of labor, 45% contributions for employed in second category of labor, and 50% contributions for employed in first category of labor.

During the period 1992-1995, efforts were made to develop a strategic document ("White Book"), with the help of which to carry out consistent reforms in the social security in order to face the mentioned challenges. The very preparation of the White Book turned Bulgaria, as well as some other CEE countries, into the arena of the then-ongoing dispute between the World Bank and the IMF, on the one hand, and the ILO, on the other, over the nature of the pension reforms. Through their experts, the international financial institutions insisted that a capital component[51] should be included in the pension reform, while the governments then (of Prof. Berov and J. Videnov) "limited" the reforms only to some parametric and organizational changes in the public insurance system. The only compromise was the creation of Teachers' Pension Fund (1996), which had elements of capitalization, mainly through the reserves that this fund accumulated for future supplements to the teachers' pensions.

During this period, the following achievements in the social security system can be outlined as **positive and with reform potential**: institutional and financial separation of the insurance system from the state structures and the state budget with the adoption of the Social Security Fund Act; introduction (though in a crippled form) of the principles of tripartite management of the insurance funds; attempts to more directly tie the insurance payments to the insurance contribution of the beneficiary through the so-called individual pension coefficient; attempts for stricter control over the collection of the social security contributions, including through interaction with the employment system, the tax administration, banks, etc.; start of an information system containing the insurance "history" of the insured persons and the employers; expansion of the scope of the insured persons with those outside the hired workforce – sole proprietors, craftsmen, agricultural producers, freelance professions.

Efforts were also made to improve the sustainability of the pension system, in terms of both revenues and expenditures. **On the revenue side** – differentiation of the amount of the social security contributions by categories of labor, introduction of individual participation in the social security contributions, introduction of contributions for various insurance risks, like health insurance, introduced in 1999 by the Compulsory Health Insurance Act, etc. **On the expenditure side** – limitation of early retirement opportunities (1992 – increase by 2 years of the age for second and third categories of labor), introduction of pension ceiling (3 social pensions) but without insurance income ceiling;

[51] Some experts from these institutions even tried to promote the introduction of the Chile pension model in our country, which contains only capital pension funds.

increase of the period considered when calculating the average amount of the base (wage or income), on which the amount of the individual pension is determined (since 1997 the base is formed by the insurance income received in certain 3 years until 1996 indicated by the person and in all years thereafter).

At the same time, the policy of social security reform then can be defined as **unsatisfactory concerning the challenges of the time**. Its main weaknesses are: fragmentation of the undertaken changes and their closure within the narrow frames of the public social security system; reactive rather than pro-active approach; lack of coordination with the other social protection systems and mutual transfer of responsibilities.

The examples of lack of such coordination have been diverse and many of them still exist. Early retirement schemes, for example, relieved the employment system but burdened the social security budget. Thus, low pensions provoked the phenomenon of many active pensioners, who are more competitive than the rest of the workforce. Also, low pensions constantly transfer pensioners (and therefore liabilities) to the social assistance. The employment system burdens the social assistance also with the long-term unemployed and the young people who have not started their employment. For its part, social assistance sought to return its regular customers to the social security through social pensions for old-age and disability.

1.3. The reform in 2000 – the beginning of a new philosophical framework

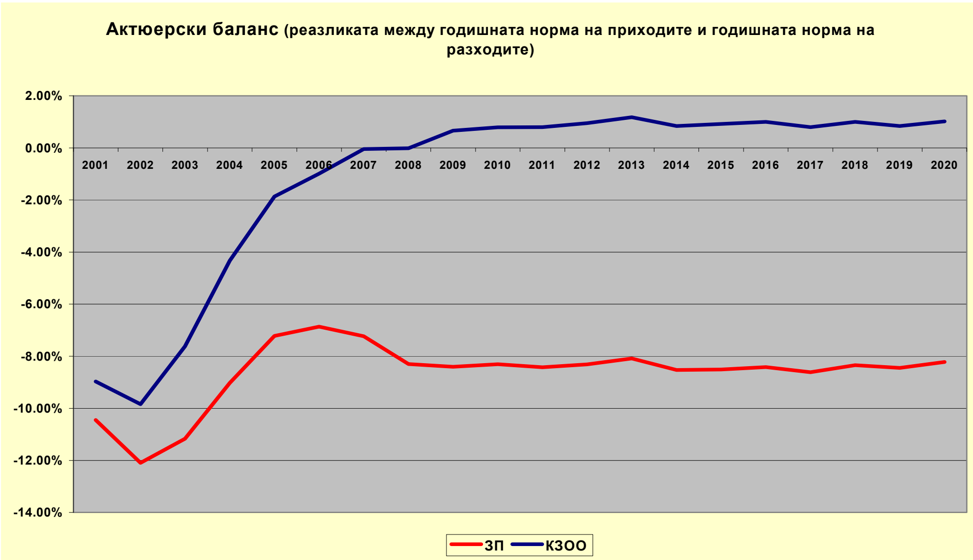
The reform in early 2000 placed the social security in Bulgaria in a new philosophical framework, based on the World Bank's concept of multi-pillar social protection ("security through diversity"), taking into account the national traditions and specifics, like established ethical norms and industrial relations, degree of readiness of the society for radical changes, insurance culture, labor market development, etc. The specific manifestations of this new philosophy were expressed in 2 main groups of political decisions – *parametric reforms and paradigmatic reforms*.

Parametric reforms in public social security (Pillar I) included stricter criteria for access to social security rights through a gradual increase of the retirement age (for men from 60 to 63 and for women from 55 to 60); introduction of a point system for retirement; limitation of the early retirement and gratuitous "donation" of insurance length of service; binding the amount of the pension to the specific contribution through the entire active life; more economical approach to the indexation of pensions; differentiation of the social security contributions by different groups of insured risks and decrease of the social security contribution from 39 to 35.5%, including 32% for pension; introduction of mandatory registration of the employment contracts and minimum insurance thresholds by groups of economic activities and qualification groups of professions, etc.

After raising the age and length of service for retirement with the new insurance legislation, many insured persons sought a more direct path to a disability pension. For the period 2000-2006, the number of disability pensions almost doubled. This imposed the application of stricter control by the NSSI through various measures. The attempts to transfer the expertise for the permanent disabilities to NSSI or MLSP transformed into a softer version. In order to increase the control over the decisions of the medical expertise for assessment of the disability, since the beginning of 2005 medical commissions were established at the territorial divisions of the NSSI. Their decision was introduced as a mandatory condition for issuing an order for granting a disability pension and assistance allowance. At its discretion, the commission might file a complaint to the relevant competent authority for reconsideration of the decision of the medical expertise. With amendments to the Health Act, Labor Expert Medical Commission (LEMC) and National Expert Medical Commission (NEMC) included representatives of the National Social Security Institute and the Ministry of Labor and Social Policy with the right to veto the decisions of the commissions. This measure caused serious discontent among the medical community and was practically revoked with legislative changes in 2010.

The reforms in the social work, including in the pension insurance, are previously burdened with the qualification that they are restrictive and aimed at restricting the social rights. Usually, when discussing any change, the focus is exactly on the restriction, and not on its health nature and the impossibility to make another decision. Despite the painful nature of the proposed reforms, the actuarial analyses carried out in the preparation for the reform showed that their postponement, especially in the area of the pension insurance, led to growing deficits (Figure 36).

Figure 36. Actuarial balance



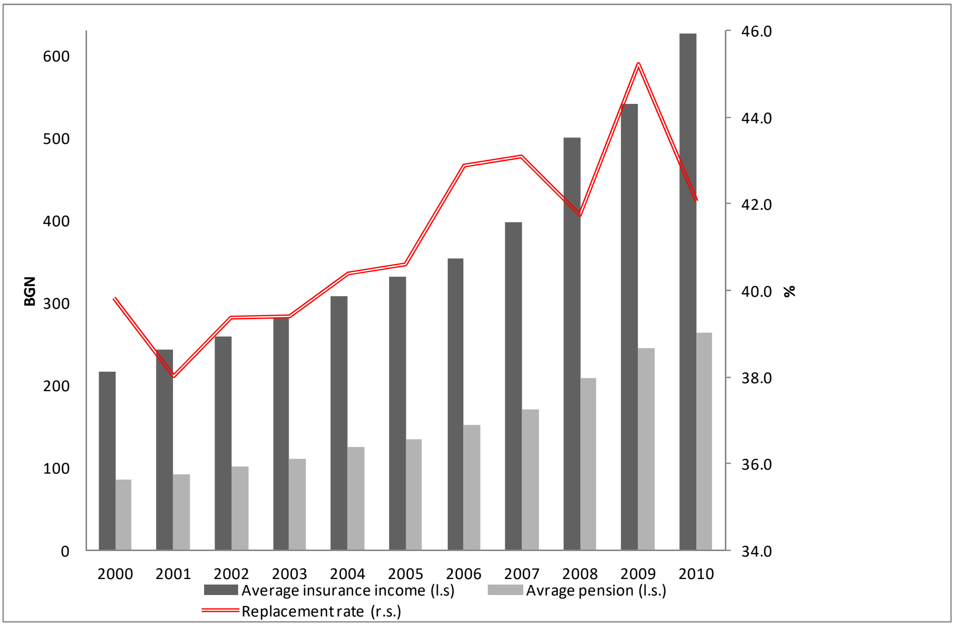
Source: Working materials of the pension reform group.

Under the conditions for granting pensions and the pension formula under the old Pensions Act (bottom line on the figure – ЗП), in the entire period until 2020 there was a financial deficit in the social security funds. Under the new compulsory Social Security Code in 2000 (upper line on the figure), this deficit was expected to exist until around 2006-2007, after which a positive balance was reached. However, this positive balance could erase the deficits accumulated at the beginning of the period just by 2020.

As a result of the stricter criteria for access to a pension, system dependency ratio (the ratio between the number of pensioners and the number of insured persons) significantly improved. Instead of almost 124 pensioners per 100 employed (under the old pension system), this indicator was reduced to 76 pensioners per 100 employed (under the new pension system).

The new pension formula and the implemented policies for indexation and recalculation of the pensions in 2000 and 2008 significantly increased the adequacy of the pensions, measured by average pension and income replacement ratio (average amount of pension per pensioner to average insurance income as a percentage) (Figure 37).

Figure 37. Average pension, average insurance income and replacement rates



Source: National Social Security Institute.

The conclusion concerning the legislation in the period 2000-2010 is that it is at high and low tide – sufficient number of effective measures were introduced, but at the same time some of them were evoked or practically negated.

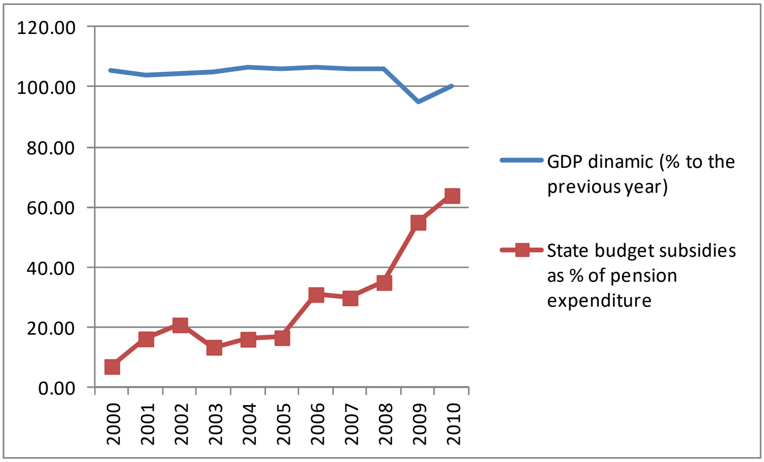
1.4. Political decisions and legislative changes eroding the insurance model

One of the goals of the social security reform in 2000 was to achieve financial sustainability of the social security funds by ending the implemented till then vicious practice of covering deficits first by increasing the social security contributions. The new amounts of social security contributions established in 2000 ensured the achievement of this goal around 2007-2008. Unfortunately, this scenario was not achieved because in 2001 a **new macroeconomic policy of reducing the social security contributions**

was introduced to stimulate the business, to improve the competitiveness and to reduce the cost of labor. Privileges for the self-insured were also introduced, and the registered farmers and tobacco producers began to pay symbolic insurance contributions (on 1/4 of the minimum insurance income for the self-insured persons). The insurance base was also reduced through freezing the maximum and minimum insurance incomes or symbolic subjective changes in them.

As a result of this new macroeconomic policy, from 2002 to 2010 the pension insurance in Bulgaria lost cumulatively over 10 billion BGN in revenues – amount equal to the deficits covered annually with subsidies from the state budget. At the end of the analyzed period, the amount of these subsidies exceeded 60% of the pension expenditures. As a result, social relations in the social security were severely deformed (Figure 38).

Figure 38. State budget subsidies as % of total pension expenditure and GDP dynamics



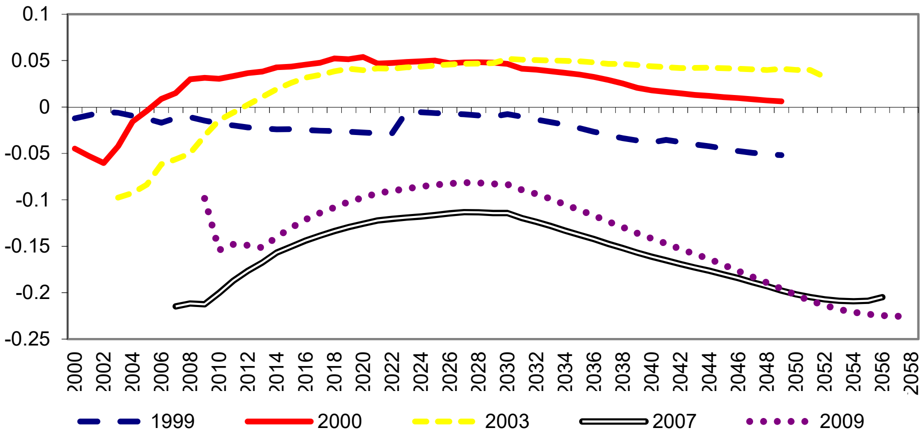
Source: NSSI and author's calculations.

To get out of this situation, since 01.01.2009 **the participation of the state as a special insurer in the Pension Fund** was legally regulated, with a transfer of **12%** on the sum of the insurance incomes of all insured persons, including the self-insured ones. The initial idea was for these contributions to be paid by the employer and then reimbursed by the state. However, if the employer failed to fulfill this obligation within certain time limits, the contributions should be transferred as his/her liability. Arguing that the National Revenue Agency (NRA) lacks the institutional capacity to administer this process, the idea was not realized and the state's contributions were formed as transfers. The participation of employed, employers and the state in the Pension Fund was in the ratio of 8:10:12, or a total contribution of 30% to this fund. This formally led to a sharp decrease of the social security deficit, but this measure was subsequently revoked and the deficit was again covered by a direct subsidy from the state budget.

The large deficits in the social security funds were generated not only from a reduction of the social security contributions and the social security base, but also at the expense of an unreasonable increase of the expenditures. Apart from additional indexations in certain years, the reasons for the increase of the deficits were also the expanding of the circle of eligible persons and extending the periods for early retirement, as well as easing the access to pensions through purchasing insurance length of service and others.

The reduction of the social security contributions, the early retirement and the eased access to pensions were the main factors for increasing not only the current but also the future deficit in the social security budget (Figure 39).

Figure 39. Actuarial balances



Note: Legend shows the expected levels of the actuarial balance based on the current legislation and for the respective year and forecast data. The actuarial calculations are of the National Social Security Institute.

Figure 39 clearly shows how with the changes in the amount of the social security contributions and the increase of the social security payments as a result of extending the terms of early retirement, additional indexations and other compromises in different key years, the deficit in the actuarial balance constantly increased. **In fact, it is clear that a balance between revenues and expenditures cannot be achieved in the medium and long term and that the social security deficit will increase as a percentage of GDP**.

The general conclusion from the critical analysis of the insurance legislation in Bulgaria for the period 2000-2009 is that an important part of the changes have led to the development and improvement of the insurance model. At the same time, many other of these changes, caused mainly by conjunctural political considerations, have eroded this model and the public trust in it. This group of legislative changes put to a serious test the financial sustainability of the insurance system and the future adequacy of the pensions.

1.5. Policies and legislative changes to counteract a financial and economic crisis and a subsequent "belt loosening" (2009-2015)

Despite the obvious signs of crisis in 2008 and 2009, adequate preventive measures were not taken in the pension insurance. On the contrary, in 2009 the nominal increase of the pensions was 19% (9% standard annual indexation and another 10% through recalculation of all pensions due to a legal increase of the accrual rate from 1% to 1.1% in the pension formula). Formally, the percentage increase of the pensions corresponded to the index with which they had to be updated under the Swiss Rule, with a consumer price index of 12.35% and an increase of the average insurance income of 25.66% in the previous 2008. In the conditions of the developed crisis, however, this increase of the pensions placed significant fiscal pressure on the consolidated budget of the State Social Security and on the state budget and gave grounds to make unpopular decisions in the field of the social security.

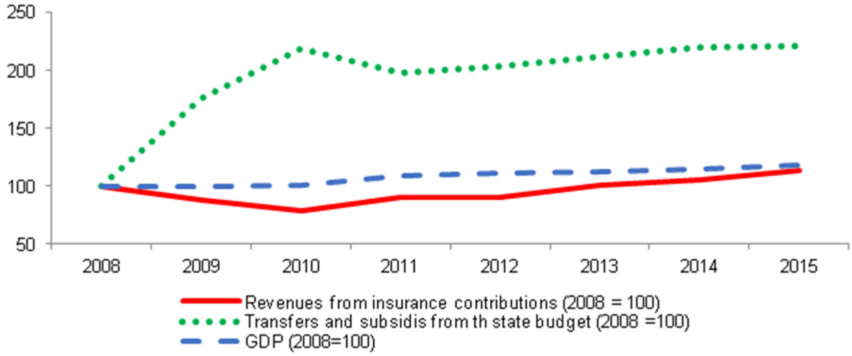
In 2010, some restrictive measures were already taken in the frames of the fiscal consolidation policy, which, with some conditionality, could be classified as "tightening". These policies included freezing the pensions for 3 consecutive years (2010-2012). With changes in Social Security Code (SSC), started an increase of the age and length of service for acquiring the right to a pension by 4 months for all categories of labor. Incentives for postponed retirement were also introduced – after 01.01.2012 the weight of each year of postponed retirement participated in the pension formula with a coefficient of 4.0, compared to 3.0 until then. The package of measures included also a gradual equalization of the retirement age for men and women. A retirement age for military personnel (55 years) was also introduced. As a whole, however, the fiscal effects of the increase of the retirement age and the length of service for retirement were not realized due to the fact that a large proportion of the affected persons found their way through unemployment benefits or disability pensions. Overall, the result was a slight reduction in the number of pensioners in 2012 and 2013 and saving 450 million BGN for the entire period.

The next decrease by 2 p.p. of the social security contribution to the Pension Fund at the State Social Security in 2010 was also reported as an anti-crisis measure and an attempt to influence the labor market. However, due to the increased deficit in this fund, in the next 2011 the contribution was increased by 1.8 p.p., i.e. the net effect was only a decrease of 0.2 p.p. Same was the attempt to fill the deficit in the social security system using funds from the supplementary pension insurance of capital type. With changes in SSC, 108 million BGN were taken away from the occupational pension funds, and this regulation was subsequently revoked by the Constitutional Court.

The mentioned anti-crisis policies in the social security, being austerity measures, existed for too short time. One of the reasons for this was the lack of public support – the signed General Agreement between the government, trade unions and employers was not implemented in practice, because the government imposed its more restrictive version of reforms in the social area. This forced the next left-wing government to freeze, though temporarily, some of the sharpest measures (rising the retirement age), and the introduced retirement age for military personnel was revoked. The privileges of the employed in the first and second categories of labor were preserved, and an attempt was even made to introduce early retirement for the employed in the most popular third category of labor. All this led to an increase of the subsidies for social security more than 2 times, with a decrease and subsequent slight increase of own revenues (Figure 40).

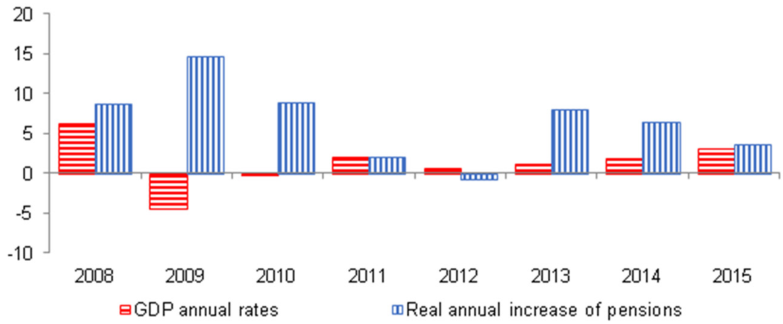
Pensions received partial compensation as they were indexed by 9.3% in 2013, and the Swiss Rule for their updating was restored in 2014. These measures were definitely influenced by political rather than economic motives and goals. Therefore, instead of anti-crisis, some of the measures were pro-crisis in nature, because the eased conditions for access to pensions led to an increase of the number of pensioners (especially in the period 2010-2011 and 2014-2016), including of the early pensions and disability pensions, and the real growth of the pensions outpaced the real growth of GDP (Figure 41).

Figure 40. Social insurance contributions revenues, state budget transfers and subsidies, and GDP dynamics (2008 = 100)



Source: Calculated according to NSI and NSSI data.

Figure 41. Real annual increase of pensions and annual GDP rates, 2008-2015 (%)



Source: Calculated according to NSI and NSSI data.

The hesitant policy in the field of the social security in the period 2008-2015 provoked public expectations for more generous payments and lighter regimes for access to social security rights and thus the opportunities for carrying out the necessary reforms were blocked. The specific recommendations of the European Commission to Bulgaria to increase the effective retirement age, including of the employed in special agencies, were also not implemented.

1.6. Reform of … reforms – legal changes in SSC in 2015 – positive aspects and decisions with a negative effect

The amendments to the Social Security Code, prepared by the Caretaker government (2014), were implemented only in mid-2015 with many compromises, incompleteness, and even regressive legislative decisions. The adoption of these changes, called "successful pension reform", by the ruling majority, related to the following goals stated in the motives for the bill: to align the conditions for acquiring the right to a pension with the objective processes of increasing the life expectancy and the aging of the population; to limit the growing deficits in the consolidated social security budget; to end the practice of "freezing" and compromising through permanently extending the term of the "favorable" transitional provisions related to the early retirement, teachers' pensions, the "ceiling" on the amount of the received pension, or the sum of the pensions.

Conditionally, the changes and amendments in SSC can be divided into positive changes, leading to improvement of the parameters of the insurance system, and changes with a negative effect and conflict potential. Most of the changes in the public first pillar in July 2015 have a positive potential and can be summarized in the following few points:

- Establishing a smooth and predictable transition to a higher retirement age for all categories of insured persons, expressed in a gradual equalization of the retirement age for men and women in the third category of labor to 65 (for men – in 2029, and for women – in 2037); annual increase by 2 months of the required length of service for the third category of labor until reaching 40 years for men and 37 years for women.
- Introduction of an automatic increase of the retirement age after 2037 according to the increase of the average life expectancy.
- Introduction of a retirement age for the employed in the "Security" sector of 52 years and 10 months, and an annual increase of 2 months to the age of 55.
- Gradual (by 2 months) increase of the retirement age of persons with insufficient insurance length of service (but with not less than 15 years of actual length of service) until reaching the age of 67.
- Annual increase of the accrual rate in the pension formula by a percentage equal to the percentage under the Swiss Rule until reaching 1.5 (pensions are expected to increase by 40% by 2029, which will improve their adequacy).
- After 31.12.2018, pensions are calculated only from the insurance income after 1996, which limits the possibility to choose good (called "clever") years and the introduction of electronic granting of pensions.
- Revoking the limit for maximum amount of the new pensions (subsequently this provision was revoked again and the maximum amount of the pension or the sum of the received pensions was fixed at 1200 BGN).
- Increase of the social security contribution for the Pension Fund at the State Social Security by 1 p.p. in each 2017 and 2018.

However, many of the adopted amendments to the first public pillar of the social security contain a negative charge and have potential for conflict, namely:

- Introduction of early retirement for insured persons in the third category – in the presence of the required insurance record, retirement is allowed 1 year earlier than the legally established age, though with a reduced life pension by 0.4% for each month of earlier retirement.
- Confirming early retirement for employed in first and second category of labor at the expense of the Pension Fund at the State Social Security – from transitional this norm became permanent. Thus, the public expenditures of the pensions of these persons will exceed 1 billion BGN, instead of the period of early retirement to be covered by the occupational pension funds.
- Confirming the early retirement of teachers from the teachers' pension fund – from transitional this norm became permanent and increased the total expenditure of public funds for pensions.
- Maintaining relatively low retirement age for employed in the "Security" sector, ballerinas, ballet dancers, dancers, miners and others, increased the contradictions with the employed in the third category of labor.
- Granting the right to early retirement to employed in the "Security" sector who have already left the system, as well as an opportunity to receive both a wage and a pension when working in the system of the Ministry of Interior, Ministry of Defense and other special agencies (in the first 9 months of 2016, 6294 people benefited from this transitional norm).
- Elimination of the obligation of the state to participate as a third insurer with a transfer contribution of 12% on the incomes of all insured persons in the Pension Fund at the State Social Security – the compromise makes the Fund even more dependent on the state budget and creates a conflict with other state programs, including social ones.
- Change in the financial structure of the social insurance through the introduction of a fund "Pensions of the persons under art. 69", provided that the employed in the "Security" sector do not pay personal social security contributions and all revenues in this fund are at the expense of the state budget. Since the first year of its existence, this fund has a deficit of 204 million BGN – the revenues from contributions and transfers are 459.2 million BGN, and the expenses – 663.2 million BGN.

Contradictory results correspond to the contradictory nature of "the reform of the reforms" in 2015. As a result of the gradual increase of the retirement age and the required length of service, after 2015 there was a slight decrease of the newly issued labor pensions, including disability pensions due to general sickness, compared to previous periods (Figure 42).

Figure 42 and its data show that the sharper increase of the age with the 2011 reforms led to a faster decrease of the newly issued pensions in 2012 and 2013, followed by a new increase in 2014 after "loosening" the requirements in 2013.

The smoother increase of the retirement age and length of service, introduced in 2015, led also to a decrease of the newly issued labor pensions by over 30 000, including disability pensions due to a general sickness of about 13 000.

Figure 42. Newly issued labor pensions, of which general sickness and old-age pensions (2009-2019)

Source: NSSI.

Regardless of the increase of the social security contribution to the Pension Fund at the State Social Security for the employed in the third category of labor by 1 p.p. in each 2017 and 2018, the increase of the revenues in this fund could not cover the expenditures, but still the deficit in 2018 decreased by about 12 p.p. compared to the base year 2016, as the short-term forecasts were optimistic (Table 9).

Table 9. Contribution revenues, pension expenditures and deficit

Indicators	2016	2017	2018	2019	2020	2021	2022
Contribution revenues (million BGN)	5064.9	5914	6772.3	7441.9	8054	8495	8917.6
Pension expenditures (million BGN)	8737	9008.2	9456.5	9861.1	10577.6	11223.8	11790
Deficit (million BGN)	4501.8	4084.6	3857.7	3624.6	4134.2	4375.9	4563.8
Deficit (% of pension expenditures)	51.5	45.3	40.8	36.8	39.1	39.0	38.7
Deficit (% of GDP)	4.7	4	3.5	3.1	3.3	3.2	3.2

The 2019 data are preliminary, and 2021 and 2022 data – forecast.
Source: NSSI.

The real deficit in the public social security was actually much higher than indicated on Table 9. Taking into account the fact that the revenues from insurance contributions included transfers for insurance of persons in the "Security" sector, which increased in the period 2016-2020 from 460 to 715 million BGN, the deficit in the social security budget was about 45% (as % of the total pension expenditures) and about 4% (as a share of GDP). Thus, the reduction of the deficit was actually by about 5 p.p. and was mainly due to the revenues from the increased social security contribution for the Pension Fund by 2 p.p., the revenues from the universal and occupational pension funds of about 160 million BGN (however, the NSSI assumed much larger future liabilities against these revenues).

The mentioned forecast parameters on Table 9 for the period 2020-2022 are based on the macro-framework of the Ministry of Finance, according to which the state budget and the budget of the State Social Security have been compiled. The economic crisis caused by the coronavirus pandemic emergency will radically change these parameters. If the forecast presented in Chapter 8 of Part One in the current report for the expected decline in GDP by 5.6% in real terms and 8.3% unemployment is realized, the revenues from social security contributions to the Pension Fund will be about 500 million BGN less than the ones foreseen in the Social Security Budget Act. If pension expenditures maintain, the nominal deficit in this fund will be around 43% and the real deficit will exceed 50%. This deficit will decrease slightly over the next 2 years if the coronavirus crisis passes and does not return, but it will still be higher than projected in the macro-framework of the Ministry of Finance in October 2019.

The impact of the 2015 reform on the pension expenditures and the adequacy of the pension revenues is also insignificant. As a result of the increase of the legally established retirement age and the required length of service, from 01.01.2016 the number of pensioners with personal pensions for length of service and old-age has decreased from 1 623 500 people at the end of 2015 to 1 589 500 people at the end of 2019, or by 2.1% (34 000 people). The total average number of pensioners for the same period decreased from 2 177 700 people in 2015 to 2 145 300 people in 2019, or by 32 400 people. This decrease has little effect on the system dependency ratio, and the increase in pensions lags behind the growth of insurance income and this leads to a decrease in the gross income replacement ratio[52] compared to 2016 (Table 10).

Table 10. Dependency ratio and gross income replacement ratios

Indicators	2016	2017	2018	2019	2020	2021	2022
Insured persons (thousand)	2765	2785	2790	2793	2796	2800	2800
Pensioners (thousand)	2181	2172	2162	2150	2138	2128	2116
Dependency ratio	78.9	78	77.5	77	76.5	76	75.6
Average pension (BGN)	332.68	345.46	364.32	381.74	412.28	439	464
Average insurance income (BGN)	770	822	890	986	1063	1136	1212
Gross income replacement ratios	43.21	42.03	40.93	38.72	38.78	38.64	38.28

The 2019 data are preliminary, and 2021 and 2022 data – forecast.
Source: NSSI.

The data on Table 10 for the period 2020-2021 will also undergo significant adjustments as a result of the economic drop due to COVID-19. In 2020, the number of insured persons based on full year-round employment will decrease by about 200 000 people. Thus, the dependency ratio will increase to 81. The data on the expected average amount of the pension for 2021 and 2022 will also undergo adjustments towards decrease, due to the lower average insurance income than previously projected. An extremely negative scenario is also possible – if the insurance income index in 2020 is negative, in 2021 pensions will not be updated, according to the regulations for their indexation under the Swiss Rule. Thus, the expected inflation of 4.2% in 2020 will not be compensated and there will be a decrease of the real amount of the average pension. The gross income replacement ratio will also be lower than expected.

In this regard, from the point of view of forming a flexible and adequate social policy, it should be recalled that in such conditions of unfavorable socio-economic environment and difficulties in the functioning of the social security, social assistance should be activated more vigorously as another element of the social protection system. Social

[52] The gross income replacement ratio is calculated as the ratio between the average pension of a pensioner and the average monthly insurance income for the same period.

assistance in general, and targeted social assistance programs in particular, such as monthly social benefits, heating benefits, family benefits for children, which apply different access criteria (income, employment, age status, etc.) should have an anti-cyclical design (Shopov, 2013, p. 72). This means that in times of crisis (as the one COVID-19 caused), access conditions, which mainly relate to income and employment status of the recipients of targeted social benefits, should be eased. In particular, in practical terms, the amount of the guaranteed minimum income (GMI) could be increased; higher percentages to apply to GMI for calculation of the differentiated minimum income, on the basis of which the amount of the monthly social assistance is determined; increased coefficients on which basis the differentiated income for heating is calculated; provision of an exclusive one-month targeted heating aid, respectively the period of heating subsidies payments should be increased from 5 to 6 months; elimination of the waiting period of 6 months for unemployed persons to apply for monthly social benefits.

1.7. Adequacy of the pension incomes (Bulgaria compared to EU and the neighboring countries)

Europe's aging population is a lasting process that leads to increase of the public expenditures on pensions, healthcare and long-term assistance. Fiscal constraints, especially in times of crisis, impose the suppression of the social transfers and this definitely leads to an increase of the share of the population, especially the elderly population, at risk of poverty.

There are various definitions of pension adequacy in the economic literature:

- The World Bank defines an adequate pension system as one that guarantees the people, regardless of the level and form of their economic activity, such level of benefits that protects them from poverty, and at the same time allows to the majority of the society a smooth consumption through the entire life (Holzman, Hinz, 2005).
- The ILO states that the purpose of the pension system is to ensure an adequate standard of living above the poverty line for the rest of the pension life. Moreover, the pension system should be common and non-discriminatory between the genders (Grech, 2013).
- The OECD defines the adequacy of the pension system as a substitute for the remuneration of the employed at a level that allows them to improve their standard of living during the retirement life compared to what they had during their active life – although pension incomes often do not replace fully the labor income (Grech, 2013).

In the analysis of these definitions, the adequacy of the pension systems should be perceived as a multidimensional category containing the following 3 dimensions: 1) protection against poverty; 2) even consumption through the entire life; 3) differences in adequacy between the genders. The first and second dimensions are the most important for assessing the adequacy of the pension systems, while the third dimension is derived from them, since it concerns the differences between men and women in the context of the first two dimensions.

EC defines the adequate pension system as one that protects against poverty at old age; allows people to improve, within reasonable limits, their standard of living after retirement; and encourages solidarity within and between generations. The pension adequacy is determined by: 1) its ability to prevent falling into poverty; 2) the extent to which it replaces labor incomes; 3) the period of time in which people receive a pension.[53]

One of the main measures of the adequacy of pension incomes, and therefore a criterion for the presence or absence of a risk of poverty among the elderly, is the **income replacement ratio**. This indicator is the ratio between the pension and the labor income received during the active life of the pensioner. The higher the income replacement rate in a country or region, the lower the risk of poverty among population aged 65+ or people with disabilities, who rely mainly on a disability pension. Since in many countries the pension incomes are not taxed, there is a difference between gross and net income replacement ratios. Gross income replacement ratio is the ratio between the average pension of a pensioner and the average gross income of an employed. Net income replacement ratio is the ratio between the average pension and the average net labor income (gross income reduced by personal insurance contributions due and taxes due).

Member States' pension programs are not subject of impact by the EU's cohesion and structural funds. The diversity of these programs in the individual countries, generally expressed in public, corporate and pension funds based on personal savings (known as the first, second and third pillar), does not allow for harmonization of the legislation. However, within the so-called "soft legislation", through specific strategic documents of the Open Method of Coordination and the White Paper – Program for adequate, safe and sustainable pensions, the European Commission acts in the form of common guidelines and recommendations for pension reforms. The goal is to increase the adequacy of the pension payments and to reduce the risk of poverty among the elderly, while maintaining the safety and sustainability of the pension systems.

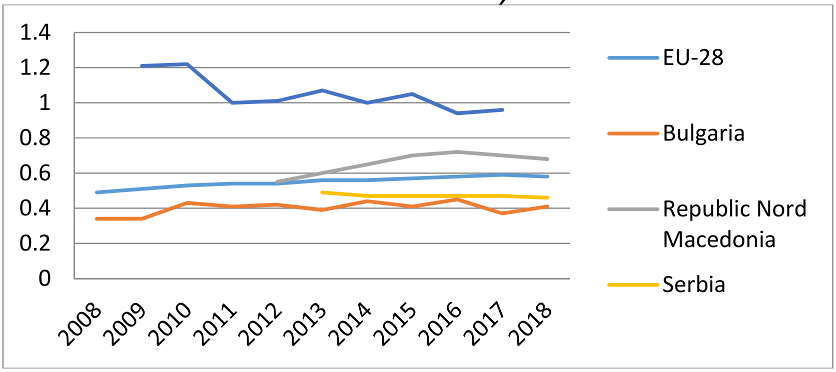
The analysis of the adequacy of the pension incomes in Bulgaria and in some countries of the Western Balkans, compared to the EU average, shows a significant lag of Bulgaria in this most important indicator for reducing poverty among the elderly and people with disabilities. Figure 43 presents data on the dynamics of the income replacement ratio[54] for Bulgaria, the EU (average values), the Republic of Northern Macedonia, Serbia and Turkey for the period 2008-2018. The graphic presentation shows a key result of the policies on the adequacy of the pension incomes, measured by the income replacement ratio after retirement of the insured persons and allows drawing some conclusions.

First, the high values of these ratios in most EU Member States show a high adequacy of the pension incomes as a safe barrier against poverty among the population aged 65+. Higher labor income replacement ratios at retirement in most EU countries have a positive effect on the risk of poverty. According to Eurostat data, in 2016 in the EU-28 an average of 15% of men and 20.6% of women have been at risk of poverty. In most countries, pension incomes from the public system are combined with supplementary pensions from corporate pension funds, as well as pension and insurance schemes based on personal savings.

[53] https://ec.europa.eu/info/sites/info/files/file_import/european-semester_thematic-factsheet_adequacy-sustainability-pensions_bg.pdf.

[54] The indicator is calculated as a ratio between the median individual gross income from pension (excluding other social transfers) of persons aged 65-74 and the median individual income from wages of the population aged 50-59.

Figure 43. Aggregate income replacement ratio for pensions (excluding other social benefits)



Source:https://ec.europa.eu/eurostat/tgm/table.do?tab=table&init=1&language=en&pcode=tespn070&plugin=1

Second, the higher income replacement ratios in the Republic of Northern Macedonia, Serbia and Turkey are also noticeable, despite the belief in a lower general standard of living in these countries. The reasons for the higher adequacy of the pension incomes there are due to both the more generous pension formulas and the transfers from the pension systems of other countries, mainly Germany. It is known that many citizens of the former Yugoslavia have worked in Western European countries and now their pensions are transferred to their home countries, i.e. they use "investments" from past periods. The same goes for Turkey. Also, Turkey is characterized by an extremely small number of pensioners compared to the active population.

Third, the free movement of workers officially became possible for Bulgarian citizens only after 2007 (and in some cases after 2014), and unofficially – since the early 1990s. For now, the "dividends" from employment of Bulgarian citizens in EU member states, as well as in countries outside it, are expressed in transfers to their relatives who have stayed in Bulgaria. The size of these transfers peaked at around 7-8% of GDP between 2001 and 2004, gradually decreased to 2%, with a new increase to 3% in the last 2-3 years, followed by a sharp decrease in the first half of 2020 due to the COVID-19 crisis. According to many economists, these transfers have minimal impact on the balance of payments and the macroeconomic stability.

Fourth, the losses for Bulgaria's social security from the emigration are much bigger. By rough estimates, 500 000 Bulgarian citizens employed in the receiving countries bring in an annual income of about 2.5 billion EUR from social security contributions to their pension funds. If in the future some of these emigrants return, an increase in the income replacement ratio is expected (similar to the Republic of Northern Macedonia and Serbia), but so far this "return" is very low. According to NSSI data, the number of Bulgarian citizens with length of service in other countries, receiving a pension under the European Regulation 883/2004 and bilateral international agreements, in 2017 was 37 700 people, with nearly 1/3 of them living abroad and receiving their pension there. Also, the average amount of pension received by a foreign insurer is about 250 BGN, due to the short period of accumulated pension rights.

It is possible that the international comparisons of the adequacy of the pension payments will undergo some adjustments in the coming economic crisis, despite the known stability of this indicator. With long and deep depression, there may be adjustments to the mechanism of indexation of pensions, or even changes in the pension formulas in some countries, including Bulgaria. But even without taking into account the impact of the current and possible future pandemics, NSSI forecast shows that the income replacement ratio will decrease from 41.6% in 2018 to 35% in 2070.[55]

1.8. Territorial differences in the pension incomes and the income replacement ratios

Much of the territorial differences in the social transfers in Bulgaria, as a percentage of the household incomes, are due to differences in the amount of the pensions by statistical regions and administrative districts. In general, social security incomes are territorially "neutral", i.e. the formulas for determining their amount in the Social Security Code are uniform for the entire territory of the country. As a substitute for the labor incomes during active work life, pensions differ significantly by territorial units due to the differences in the amount of the personal insurance income from which they are calculated. Table 11 shows the differences in the amounts of the average pensions by statistical regions and in the gross income replacement ratios.

Table 11. Average pension per pensioner and gross income replacement ratio by statistical regions

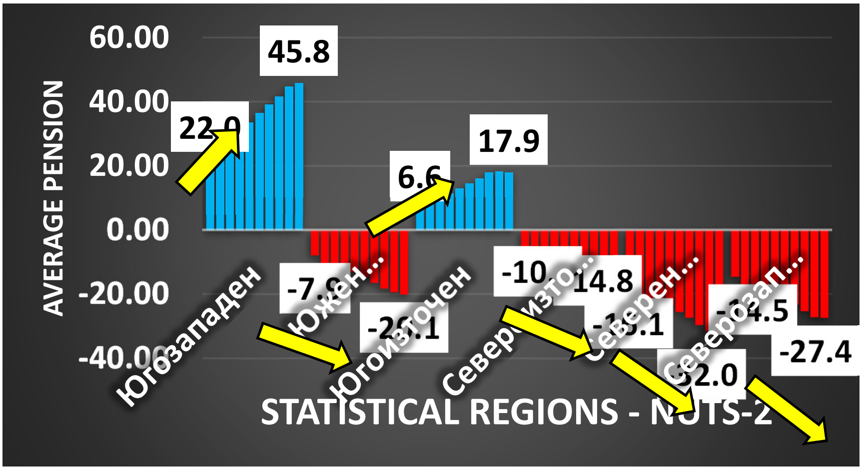
Statistical regions	2010		2013		2017	
	Average pension (BGN)	Gross replacement rates	Average pension (BGN)	Gross replacement rates	Average pension (BGN)	Gross replacement rates
Bulgaria	263.44	46.19	293.96	45.31	345.46	42.05
Southwest	294.59	51.65	330.39	50.93	391.29	47.63
South central	250.76	43.97	279.46	43.08	325.36	39.61
Southeast	274.49	48.13	308.49	47.55	363.37	44.23
Northeast	249.92	43.82	280.77	43.28	330.69	40.25
North Central	239.60	42.01	268.43	41.38	313.48	38.16
Northwest	242.75	42.56	272.69	42.03	318.08	38.72
Scope of variation	54.99	9.64	61.96	9.55	77.81	9.47

Source: NSSI.

Data on Table 11 (and Figure 44) show relatively big and increasing differences in the average pension of a pensioner in the 6 regions of level 2 compared to the national averages.

[55] NSSI. (2020). Newsletter. N 1, p. 9.
https://noi.bg/images/bg/users/infomaterials/izdania/buletin/2020/Bul_1_2020.pdf.

Figure 44. Regional disparities on pension level (2010-2018)



Source: Developed with NSSI data.

The scope of the variation between the region with the highest and the lowest amount of the average pension is 54.99 BGN in 2010 and 77.81 BGN in 2017. These differences, as already mentioned, are mainly due to the differences in the basic personal incomes of the residents in the regions from which the pensions are calculated. Another reason for the differences is the older population in the Northwest and Northeast regions – as a rule, the pensions of people aged 80+ are lower due to the lower base from which these pensions are calculated and the frugal policy of their actualization. Figure 44 shows that for the entire period the average pension of 1 pensioner is higher than the average pension for the country only in the Southwest and Southeast regions, and in the other regions the differences are negative and increasing.

The differences in the amount of the average pension by statistical regions are projected also on the gross income replacement ratio. The scope is almost 10 points, which at the low levels of this ratio means that a large number of pensioners are at risk of poverty.

The territorial differences of average pension of 1 pensioner and the gross income replacement ratio are even bigger at the administrative districts level (Table 12). The scope of the average amount of the pension per 1 pensioner increases from 93.55 BGN in 2010 to 145.17 BGN in 2017, and the one of the gross income replacement ratio increases from 16.40 to 17.67 p.p. for the same period.

Arranged by the amount of the pension of 1 pensioner, on the first place on the table are Sofia (due to high wages in the capital) and the districts of Pernik, Kyustendil, Burgas and Stara Zagora, where for many years there are companies in the mining, oil refining and energy. As a rule, people working in these industries have much higher pensions due to the relatively higher wages and the higher insurance length of service, which has become a third category of labor.

Table 12. Average pension per pensioner and gross income replacement ratio by administrative districts

Administrative districts	2010		2013		2017	
	Average pension (BGN)	Gross replacement rates	Average pension (BGN)	Gross replacement rates	Average pension (BGN)	Gross replacement rates
Bulgaria	***263.44***	***46.19***	***293.96***	***45.31***	***345.46***	***42.05***
Sofia city	313.18	54.91	352.34	54.31	420.68	51.21
Gingerbread	315.77	55.37	346.91	53.48	398.73	48.54
Burgas	293.49	51.46	329.58	50.80	389.46	47.41
Kyustendil	287.05	50.33	320.42	49.39	371.19	45.18
Stara Zagora	274.14	48.07	309.12	47.65	365.27	44.46
Varna	273.67	47.98	308.26	47.52	364.39	44.36
Sofia	263.78	46.25	297.63	45.88	353.56	43.04
Haskovo	266.18	46.67	296.14	45.65	343.65	41.83
Yambol	257.05	45.07	288.82	44.52	337.27	41.06
Plovdiv	255.81	44.85	286.13	44.11	337.00	41.02
Vratsa	255.44	44.79	286.95	44.23	335.92	40.89
Smolyan	261.12	45.78	288.29	44.44	335.78	40.87
Gabrovo	257.23	45.10	287.88	44.38	334.35	40.70
Sliven	251.43	44.08	280.41	43.22	326.78	39.78
Veliko Tarnovo	245.73	43.09	277.14	42.72	325.31	39.60
Ruse	247.07	43.32	276.62	42.64	324.60	39.51
Pleven	244.96	42.95	275.32	42.44	320.97	39.07
Blagoevgrad	239.38	41.97	266.76	41.12	311.60	37.93
Lovech	235.41	41.28	264.88	40.83	309.63	37.69
Dobrich	233.80	40.99	262.08	40.40	308.58	37.56
Montana	235.91	41.36	264.65	40.79	307.40	37.42
Pazardzhik	235.34	41.26	262.53	40.47	307.39	37.42
Vidin	234.74	41.16	262.69	40.49	304.69	37.09
Shumen	232.97	40.85	259.39	39.98	302.61	36.84
Silistra	221.29	38.80	247.33	38.12	285.78	34.79
Targovishte	217.46	38.13	244.20	37.64	285.21	34.72
Razgrad	211.70	37.12	235.76	36.34	275.88	33.58
Kardzhali	219.63	38.51	245.02	37.77	275.50	33.54
Scope of variation	***93.55***	***16.40***	***107.32***	***16.54***	***145.17***	***17.67***
Standard deviation	***8.09***	***8.09***	***8.07***	***8.07***	***8.39***	***8.39***

Source: Calculated with NSSI data.

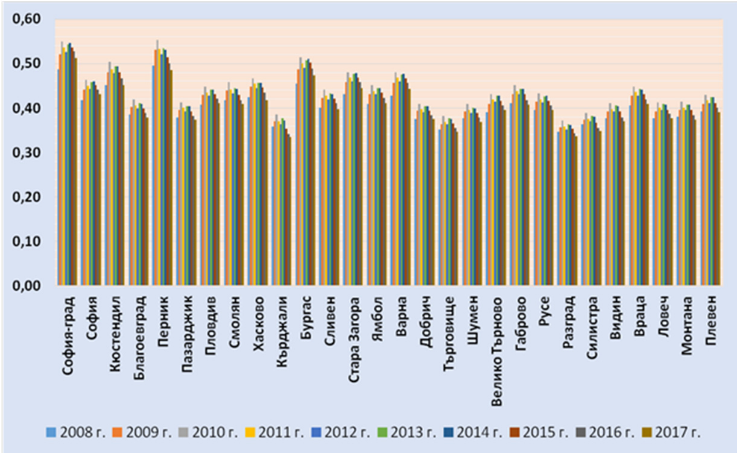
Figure 45 shows more detailed information on the levels of the gross income replacement ratio at the district level.

When analyzing the data on the figure, the following conclusions stand out:

First, the trends in the dynamics of the gross income replacement ratios at the district level repeat the same trend as at the region level. Low levels at the beginning of the period, an increase with some fluctuations in the middle of the period, and again a slight decrease in some districts at the end of the period.

Second, high wages and working in the first and second categories of labor of generations of residents in these districts guarantee them relatively higher pensions. On the contrary, the elderly population in the districts with weaker economies and no structure-defining enterprises in the mentioned sectors receive lower pensions and are at greater risk of poverty.

Figure 45. Gross income replacement ratios by administrative districts – NUTS-3 (2008-2017)



Source: Developed with data from NSSI.

Territorial differences in the income replacement ratios may deepen at a deeper economic depression (with the respective time lag) if the current rules for calculating the pensions remain. In case of political intervention towards increasing the minimum pensions and limiting the maximum ones (leading, however, to compression of the differences in the received pensions according to the insurance contribution), these territorial differences may change towards a slight decrease.

1.9. Necessary changes in SSC for higher adequacy, safety and sustainability of the pension system

In order to make a more decisive transition to stabilization of the insurance system, to restore the trust in it, it is necessary to make the following policy decisions and relevant legal changes:

- Change in the regime and methodology of the expertise for permanent labor ability and limitation of the possibilities for abuse with the disability pensions and the temporary incapacity for work due to general sickness.
- Exonerating the social security from non-specific functions – clear and hidden subsidies of the economy, supporting small businesses and agriculture, paying non-labor pensions, etc.
- Actualization of the pensions in a fair way to close (rather than open, to which the new way of annual updating leads) the gap between new and old pensions. Postponing this issue becomes more and more expensive – for example, the recalculation of all pensions with insurance income for 2015, according to NSSI calculations, costs 1.7 billion BGN.

- Introduction of personal social security contributions for civil servants and employed in “Security” sector in order to comply with the principle of equality.
- Elimination of early retirement for employed in the third category of labor and transfer of the early retirement to employed people in first and second categories of labor to Occupational Pension Funds.

Significant changes are needed also in some procedures and rules for the annual determination of main parameters of the insurance system – different types of minimum pensions; non-labor pensions; amount of childcare benefits; minimum unemployment benefits; maximum amount of pension or sum of pensions (until this norm exists); and others. The lack of clear rules and a mechanism for determining these parameters leads to their subjective establishment every year and to unnecessary debates between the social partners, or at the National Assembly, and introduces additional social tension. Solving this problem includes considering the nature of the respective payment – whether it is only insurance payment and compensates for lost labor incomes, or it is a payment not related to the labor activity. On this basis, the following solutions are possible:

- Pensions for length of service and old age, for disability due to general sickness or work accident and occupational disease, and the resulting survivors’ pensions, should be determined by the pension formula and paid in actual amount.
- Fixing the guaranteed minimum amounts of this type of pensions should be done based on the poverty line, and the difference between the actual pension and the guaranteed minimum pension should be covered by the state budget.
- All non-labor pensions should be tied to the poverty line, and their issuing and paying should be done by the Social Assistance Agency and covered by the state budget.
- Adoption and introduction of procedural rules and mechanism for conducting annual negotiations on determining the minimum insurance income by economic activities and qualification groups of professions, the minimum insurance income for the self-insured, and the amount of the maximum insurance income (Tzanov, Shopov, 2017, p. 3-31).

1.10. Life cycle of public pay-as-you-go pension systems

Public pay-as-you-go systems have a typical life cycle, and the stages of this cycle are determined mainly by the changes in the system dependency ratios (number of employed per 1 pensioner). These ratios have a strong impact on the amount of the insurance contribution, the pension expenditures, the current deficit or surplus in the pension funds. In a World Bank report (World Bank, 1994), the life cycle of pay-as-you-go public systems is divided into three stages – *“youth”, “growth” and “maturity”*. This division is primarily theoretical and applies to a period of 40 years, which is the usual active life. Historically, pay-as-you-go pension systems of the different countries have also gone through these three life cycle stages, though the transitions from one stage to another are longer. The main exemplary characteristics of the life cycle stages of the pay-as-you-go schemes and the actual parameters of the Bulgarian pension system are shown on Table 13.

At ***youth stage*** of the pension systems, the number of insured persons (contributors – those who pay social security contributions) is much higher than the number of beneficiaries (more than 15 employed per 1 pensioner). The social security coverage (insurance participants as % of total employment), the contribution rate and retirement age are low, and pension expenditures are less than 1% of GDP. At this stage, the schemes end with a large surplus and should accumulate reserves for future payments.

The favorable demographic structure (high share of young people and small number of pensioners) allows transfers even to elderly people who make very little contribution to the system. The pension systems of the European countries, including Bulgaria, have been at the youth stage until about 1920. Currently, at this stage are the pension systems of some countries in Africa, Asia and Latin America. The social policy of the countries during the growth stage of the pension system is directed towards the elderly population who are not covered by the insurance system, whose number during this period is very high. This policy is mainly expressed in various types of social benefits and services for the poorest.

Table 13. Life cycle of the pay-as-you-go pension schemes

Stages of the life cycle	System dependency ratio (number of pensioners per 100 employed)	Pension expenditures (% of GDP)	Contribution rate (% of gross incomes)	Economic activity coefficient	Surplus/deficit (actuarial balance)
Youth	5.7	0.6	8.0	15.7	+47.1
Growth	8.5	3.3	13.7	45.4	+34.9
Maturity	18.9	8.5	24.6	89.4	-19.6
Erosion Bulgaria 2019	76.9	8.3	19.8	75.7	-41.3
Erosion Bulgaria 2030	72.5	7.8	19.8	78.4	-29.0
Disaster Bulgaria 2040	73.2	8.6	19.8	79.4	-31.0
Disaster Bulgaria 2050	81.4	9.0	19.8	79.6	-37.0
Disaster Bulgaria 2060	88.9	9.8	19.8	79.7	-42.0

Source: for the first 3 rows – Averting the old age crisis, policies to protect the old promote growth, A World Bank Policy Research Report, 1994, p. 315. All other rows are by the author of this part of the report, based on data (middle version) from Actuarial Report of the National Social Security Institute 2019.

At ***growth stage***, there is an increase of the insurance coverage and increase of the amount of insurance contributions due to the increasing expenditures. The share of the elderly population increases, but the employed/pensioners ratio remains relatively high (12 employed per 1 pensioner). The scope of the public pension schemes expands to include more and more age cohorts and exceeds 1/3 of the employed, which improves the system dependency ratio. The contribution rate increases, the surplus starts to decrease, there are various schemes and privileges for early retirement. Pension expenditures are 2-5% of GDP, with pensions being generous compared to the duration of participation in the system. Annually more than 1/3 of the collected revenues from social security contributions remain as a reserve for future liabilities. The pension systems of the countries of Old Europe have been at growth stage in the 1930s to the early 1960s.

The same applies to the Bulgarian pension system. The pension system of USA develops with some delay concerning this stage, due to its later launch (in 1935).

The problems at this stage relate to the increase in the social security contribution rate, which leads to attempts to escape to the informal sector, mainly through the use of workforce from the emigrant countries. The result is lower than the expected ratio of contributors and beneficiaries in the current age structure of the population and a serious threat to the financial sustainability of the system.

At ***maturity stage***, the public pension system begins to acquire the features of a pyramid structure, in the sense that, other things being equal, it cannot fulfill its obligation to the future pensioners and is supported by the state budget through subsidies. If parametric reforms for its financial stabilization are not carried out, serious internal deficits (about 20% of the expenditures) start to be generated. Old Europe's pension systems have reached maturity after the 1950s. The insurance coverage is high, but all members of the age cohorts who have reached retirement age are entitled to pensions. The ratios of age and system dependency continue to decrease (less than 6 employed support 1 pensioner). The contribution rate is about 20%, and the pension expenditures account for more than 8% of GDP. Most systems maintain large deficits, but do not increase the social security contributions so as not to limit labor demand or reduce the competitiveness of the national economy.

At the beginning of the third stage, there are early retirement schemes, but stricter access conditions. More economical mechanisms for indexations of the pensions began to be applied, as a result of the huge deficit. It is at this stage that the desire and pressure for profound structural changes in the system increase. The pension systems of the European countries have been at the third stage in the late 1980s. Since the mid-1990s, in almost all countries reforms have been under way, to ensure an adequate level of pension payments and financial stability of the systems. The Bulgarian pension system, in parallel with the pension systems of the developed countries, is also at a maturity stage from the mid-1960s. It has clear symptoms of crisis, but reforms have not been carried out until the late 1990s. Then the system dependency ratio has deteriorated sharply, not only due to the aging population, but also to the mass emigration of young people from the country.

These three stages in the development of the insurance systems of pay-as-you-go type with their listed characteristics are valid for closed national borders. In practice, in the modern world there are powerful migration processes that change the population structure in the developed and developing countries. Generally, migration flows are directed from countries without any insurance system, or at a developing stage, to countries with mature insurance systems. This leads to an improvement in the dependency ratios in the latter, and ultimately to a “rejuvenation” of their insurance systems. The picture is more unfavorable when the workforce moves from the newly EU accessed countries to the old EU members. This process deteriorates the parameters of the already mature insurance systems in Central and Eastern Europe and causes them financial deficits. However, this process can be considered temporary due to the slowdown of the migration processes after the full membership and the emergence of new processes – the new EU member states also begin to accept emigrants from other countries outside the community.

In addition to rejuvenation of the population as a result of immigration, the developed countries are able to counteract the trends of deteriorating the financial parameters of the pay-as-you-go systems by increasing the opportunities for continued employment and maintaining a good balance between active life and time of receiving pension at a ratio of 2:1, i.e. about 40 years of active life and average of about 20 years of receiving an old-age pension. Factors like increasing the technical ensuring and labor productivity and increasing the wages will also work towards strengthening the financial stability of the pay-as-you-go systems.

Due to the delay of the parametric reforms and the reduction of the pension insurance contributions based on unsubstantiated political decisions, the public pension system of Bulgaria fell into huge deficits. In some years, these deficits exceeded 50% of the pension expenditures. Thus, after 2010, the pension system of Bulgaria moved to an **erosion stage**. This stage is characterized by extremely high system dependency ratios (about 75 pensioners per 100 insured persons), high pension expenditures as a percentage of GDP (around 10%), and low income replacement ratios (average pension to average wage is about 40%). The carried out another pension reform in 2015 somewhat improved these ratios, mainly with reducing the number of pensioners and reducing the income replacement ratios (including due to unsubstantiated reduction of about 25% of the social security pension due to participation in a universal pension fund). However, the effect of these reforms is likely to reach the point of exhaustion by 2035 and the public pension system will be permanently at a **disaster stage**.

Conclusion

The analysis of the development of the public solidarity pension system in Bulgaria **leads to a general conclusion** – this system is of "Bismarck" type, and in its nature it is intended primarily to protect the active people. Transfer payments from the pension system (all types of personal and survivor's labor pensions) are based on past and present labor incomes and duration of participation with social security contributions forming the length of service. Concerning the individual actuarial evaluation, this system is fair to the individuals, especially to those who have a long and rich insurance history and accumulated rights. However, to exercise these rights, it is necessary to maintain a positive actuarial balance, which is impossible with an aging population, a negative emigration balance and low rate of social security contributions. In the absence of these prerequisites, the Bulgarian solidarity pension system accumulates huge unexecutable liabilities, which are currently covered by subsidies from the state budget and by compromising low income replacement ratios. Beyond the mentioned problem, at the present stage the social protection of the elderly in Bulgaria, based mainly on labor and professional solidarity, contains also a large social regression, in terms of the national goals for social cohesion at European level and for the harmonious development of the regions.

At European level, the large wage differences between Bulgaria and the average levels of the EU countries by definition make our pensioners much poorer. To these general preconditions are added the national specifics of the pension formula and the more economical indexation of pensions, which leads to opening the gap between the newly issued and the old pensions. This problem can be solved by periodical recalculation of the pensions with a new, more modern average insurance income. Such recalculation has been done twice so far – in early 2000 and in April 2009. According to NSSI calculations, a new recalculation with average insurance income even from 2016 increases the annual pension expenditures by about 1.7 billion BGN.

In a pension system based on labor participation, individuals (respectively regions) with higher labor incomes receive higher transfers, and this leads to increase of inequality and regional differences in the standard of living of the population. This “weakness” of the main and largest social transfers based on labor and labor incomes can be corrected only by increasing the economic activity in the depressed regions, generating high-productivity jobs, and technological renewal of the enterprises. At the same time, non-contributory payments – child allowances, monthly and periodical social benefits based on income and property test – should also be increased and timely updated. Only in this way people who, for various reasons, completely or for longer periods of time are actually outside the insurance system can be protected from poverty.

The attempts of the politicians to address this “regressive” nature of the public pension system by increasing the minimum pension and imposing a “ceiling” on high pensions are against the principle of equivalence of the pension payments and lead to a decline of the trust in the public pension system.

Instead of the creeping (subversive) erosion and depersonalization of the pension system by the politicians, **a well-measured transition to a mixed (hybrid) type of pension system can be proposed** as a final option.[56] Under this option, pensions are again issued based on age and length of service, but consist of two components – **state pension** equal to the poverty line (or objectively determined and constantly updated guaranteed minimum income), and **insurance pension** taking into account the insurance contribution of everyone who has paid social security contributions for at least 15 years. This variable part can be calculated again according to the current pension formula, but with a lower accrual rate (for example 0.5 or 0.6). The state pension should be financed from the state budget, and the variable part – from the Pension Fund at the State Social Security. In macroeconomic terms, this will reduce the fiscal pressure on the budget and will eliminate the problem of the growing social security deficits. In social terms, the introduction of a state pension will reduce the risk of poverty among the elderly population and will solve the problem of overlapping the various social benefits with the pension payments for certain groups of the population.

A fair transition requires that this hybrid model be established only for the new pensions since 2025 or 2030, and that the pensions issued until that date continue to be paid according to the current model. There are also versions of a smoother transition with a gradual reduction of the accrual rate, combined with an increase of the pensions from the second capital pension pillar. However, in a deep and long global financial and economic crisis, such a reform in the first solidarity pension pillar can be implemented much sooner and under a much more unfair version.

[56] Such options have been discussed in the working group on the pension reform in Bulgaria in the late 1990s. Theoretically, the hybrid pension models, which are more and more used, take advantage of the “Bismarck” and “Beverage” models.

2. Development and Problems of the Capital-Funded Pension Funds

2.1. Forms of development and market concentration of the capital pension insurance

The capital pension insurance in Bulgaria is carried out in the **following two forms**:

- Supplementary **mandatory** pension insurance in two types of pension funds – universal pension funds (UPF) and occupational pension funds (OPF), which form the second pillar of the pension system.
- Supplementary **voluntary** pension insurance in Voluntary Pension Funds (VPFs) and Voluntary Pension Funds under Occupational Pension Schemes (VPFOPSs), which form the third pillar of the pension system.

The very definition of the capital pension funds (mandatory and voluntary) as **supplementary** shows the complementary role of the second and third pillars of the pension system to the first pillar of the social security, which has a leading role.

Figure 46 shows the **organizational structure** of the Bulgarian pension model and the place of the capital pension insurance in it.

Figure 46. Bulgarian pension model

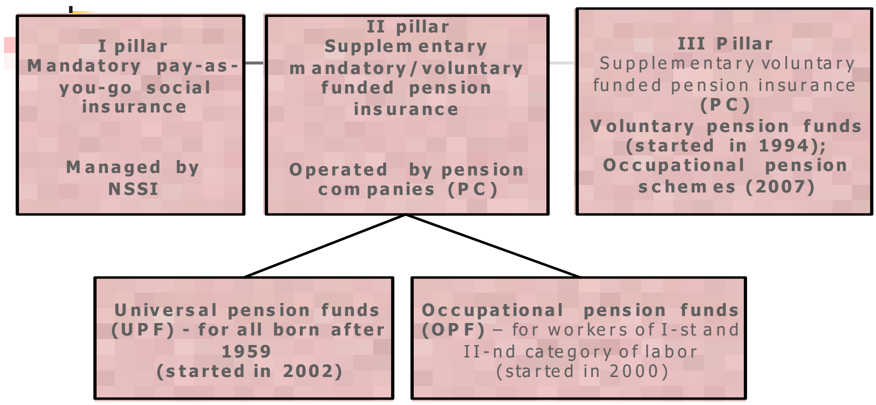


Figure 46 shows that 1 pension insurance company (PIC) in practice can manage 4 pension funds, which are independent legal entities (2 mandatory and 2 voluntary pension funds). The voluntary pension fund under occupational pension schemes in practice consists of a number of occupational schemes, which management the founders (employers and employed or self-employed) assign to the pension insurance company. The legal separation of PIC from the pension funds guarantees the security of the funds of the insured persons in case of insolvency of the company.

With changes in SSC, since 2015 the insured persons have the right to voluntarily choose whether to be insured in UPF, or to transfer the funds from their individual account to the State Fund for Guaranteeing the Sustainability of the State Pension System (with the possibility of refund), or up to 5 years before retirement to the Pension Fund at the State Social Security. The same opportunity is provided to those insured in OPF, but without the possibility of refund. Thus, in practice, the capital part of the pension system in Bulgaria **is transformed into a voluntary capital pillar** with 2 types of pension funds – with legally defined contribution rate, and with variable (freely negotiated) contribution rates. That is why on Figure 46 the second pension pillar is marked as *mandatory/voluntary pension insurance*, which puzzles almost all researchers of the pension systems, as well as some international organizations.

Pension penetration[57] in Bulgaria in 2019 is 13.15%, including 12.15% of the funds of the supplementary mandatory pension insurance and 1% of the voluntary pension insurance. The accumulated capital assets of the pension funds play not only social but also important economic role. Large part of the social security contributions is invested in the Bulgarian economy through the purchase of corporate shares and bonds, mortgage bonds, etc. Also, pension funds assist the state in its policy of issuing government debt, including in debt financing of large investment projects. Their participation on the capital market as large highly regulated institutional investors makes this market more secure.

The development of the supplementary pension insurance is characterized by a gradual **consolidation of the market of pension services**, expressed in mergers and acquisitions of PICs and change of shareholders. As a result of these processes, PICs have different market shares from the number of insured persons and the amount of net assets in the funds managed by them (Table 14).

Table 14. Market concentration – insured persons and net pension assets by PICs (2019)

Pension insurance company	Voluntary pension funds		Universal mandatory pension funds		Occupational pension funds	
	Net assets (% of total)	Insured persons (% of total)	Net assets (% of total)	Insured persons (% of total)	Net assets (% of total)	Insured persons (% of total)
Doverie	13.26	23.1	25.72	26.71	23.03	23.15
Saglasie	7.63	8.08	10.99	10.77	16.61	14.45
DSK Rodina	10.45	18.12	17	15.53	15.75	13.97
Alliance	45.9	33.56	21.25	20.54	17.7	15.61
En En	13.6	6.57	10.77	8.9	7.37	7.8
Sila	7.87	8.74	9.35	8.68	10.88	11.06
Badeshte	0.23	0.62	2.54	5.44	2.37	5.25
Toplina	0.97	1.7	1.26	2.21	4.5	6.2
POI	0.08	0.07	1.15	2.03	1.77	3.07
Herfindal Hirshman index	**2698**	**2176.3**	**1735.6**	**1685.6**	**1569.3**	**1442.1**

Source: Financial Supervision Commission and author's calculations.

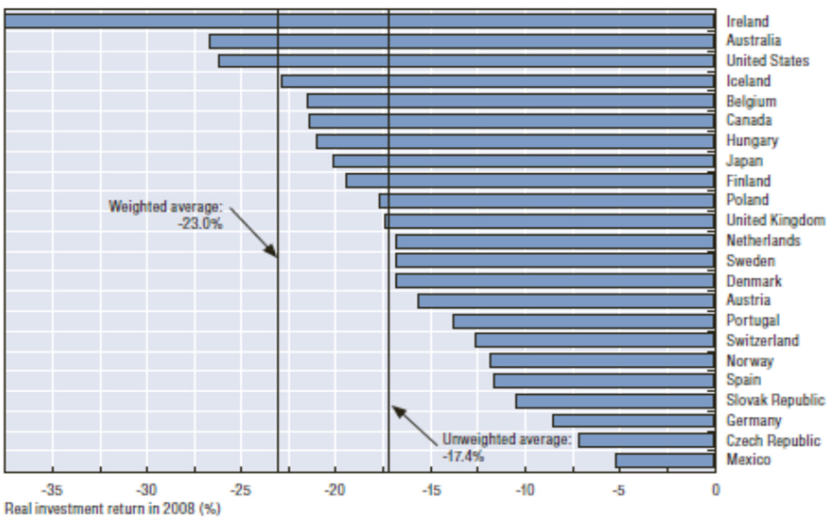
With this differentiation, naturally arises the question under what conditions do PICs operate in Bulgaria – fair competition or monopoly environment? The indices calculated according to *Herfindahl-Hirschman* formula at the end of 2010 were 2013.5 for the

[57] Pension penetration is the ratio between the accumulated pension assets and the amount of gross domestic product in a given year.

concentration of insured persons and 2133.2 for the concentration of net assets, or the insurance market was highly concentrated. At the end of 2019, these indices are 1682.8 and 1730.5, which means that **the insurance market is still very close to market concentration and monopoly**. The strongest market concentration is in the management of VPFs, where *Herfindahl-Hirschman* indices are respectively 2176.3 for insured persons and 2698 for managed net pension assets. Under this type of funds, Allianz PIC holds 45.9% of all net assets and 33.6% of all voluntarily insured persons in its portfolio. The high market concentration of insured persons and net assets influences also the price of the insurance services – deductions from social security contributions and pension portfolio management fees in almost all PICs are equal to or very close to the maximum amounts set in the Social Security Code.

The 2008 crisis led to a depreciation of the assets in the portfolios of the capital pension funds by an average of 22.8%, and this, combined with high inflation, depreciated the real value of 1 pension share by almost 1/3. This depreciation was immediately followed by a new real increase of the net assets in the next 2 years. This fact, as well as the relatively lower levels of depreciation of the pension assets in Bulgaria compared to many other countries (Figure 47), led to maintaining the positive attitude towards the capital pension insurance and avoiding shocks in PICs as non-banking financial institutions.

Figure 47. Crisis impact on the decline of real investment return of the pension funds in 2008



Source: Pensions at Glance 2009, OECD.

It is clear that the global financial and economic crisis has led to negative net returns in all countries with capital pension systems. In the countries with more liberal investment regimes (Ireland, Australia, USA, Iceland, etc.) the erosion of the pension savings is very high and the period of recovering the losses for the insured persons will be long. Some of the pre-defined payment schemes have fallen into a liquidity crisis.

The damages of the recent financial and economic crisis on the capital pension schemes gave the start of a new policy for their regulation, aimed at increasing the state intervention and seeking bigger guarantees for the insured persons. Most countries limited the pre-defined pension schemes and encouraged defined contribution schemes in which the investment risk at the accumulation stage was covered by the insured person. At EU level, new directives were also adopted regarding the regulation of the supplementary pension insurance. All of them were transposed into the Bulgarian legislation. There was also a closer coordination of the regulatory authorities in all countries under the auspices of the new European Insurance and Occupational Pensions Authority (EIOPA).

However, this does not mean that pension funds are insured against new shocks on the capital market or in cyclical economic crises. **The current crisis in the economy, caused by the coronavirus pandemic, has already a negative impact on the main parameters of the capital pension funds in Bulgaria.** For example, according to the Financial Supervision Commission, in March 2020 the net assets of the universal and occupational pension funds have decreased by an average of 4.5% compared to their value in January 2020. This shows negative returns and lower levels of the value of 1 pension share in March. The decrease of the net assets of the voluntary pension funds in March 2020 was by 8.9% compared to January 2020, which is due to the more intensive withdrawal of amounts by the insured persons, especially after the introduction of the state of emergency. For example, in the first quarter of 2020 the voluntary pension funds paid amounts of 41.3 million BGN, and the gross revenues from social security contributions were 31.7 million BGN. As a result of these processes, the revenues from PIC fees from the voluntary pension funds in the first quarter of 2020 are 0.8 million BGN, compared to 4.2 million BGN in the first quarter of 2019.

After some calming of the capital markets, the return for all types of pension funds for the second quarter of 2020 is again positive. The levels of the weighted average return for the past 3 months (01.04.-30.06.2020) are positive due to the increasing evaluations of the financial instruments on the international capital markets. After the sharp declines in March, as a result of the pandemic crisis and the effects on the world economy and the markets, the indicators and prices of the capital instruments and stock indices recovered significantly, which improved the performance of the funds for this period, and the average annual return was for UPF – +3.09%, OPF – +2.50%, VPF – +3.44%.[58]

However, it cannot be said with certainty that the crisis is over, since with a new wave of COVID-19 pandemic and the expansion of the economic crisis, the negative processes may deepen for all three types of capital pension funds as a result of the decreasing employment, the unfavorable situation on the capital markets and the growing mistrust. This will have a negative impact on the financial results of the PICs.

In 2016, PICs and the pension funds they managed were subjected to stress tests, though in 2015 a special parliamentary committee reported that there were no problems in this area. The review was carried out by acknowledged independent external experts under the supervision of a Managing Committee with representatives of the Financial

[58] Bulgarian Association of Supplementary Pension Security Companies, http://www.bta.bg/bg/c/BO/id/2242022.

Supervision Commission (Member of the Managing Committee), Ministry of Finance (Observer), Bulgarian National Bank (Observer), European Commission (Observer), and the European Insurance and Occupational Pensions Authority (EIOPA).

The period before and during the tests was used by opponents of the mandatory supplementary pension insurance of capital type to attack the entire market. The unsubstantiated criticism and the hostile talking against the activity of the PICs, mostly by representatives of the government at highest level and by the trade unions, constantly provoked distrust and anxiety in some of the insured persons.

The summary report of the auditors absolutely confirmed that the pension market and the pension funds in Bulgaria are stable, the assets are available, stored and recorded by the custodian banks. There were no findings of investments in affiliated parties, considered in the context of the definition of affiliation at that time. The recommended devaluation of investments in real estate and corporate bonds was about 33 million BGN, or 0.3% of the assets of the pension funds. This devaluation is measurable with the average daily movement of the market profitability.

Although PICs successfully passed the stress tests, **the negative attitude towards them, and especially towards the funds from the second pension pillar, continued by the government and the trade unions**. The adopted by the National Assembly increase of the social security contribution rate to UPF by 2 p.p. from 01.01.2017 was subsequently waived and followed by an increase of the contribution to the Pension Fund at the State Social Security. The developed bills **for settling the stage of payment by UPF**, for introduction of **multi-funds** and other initiatives for improvement of the pension legislation in the field of the capital funds, were blocked by the government and did not reach the National Assembly. **This whole policy was in complete contradiction with the spirit of the EC's White Paper "Agenda for adequate, safe and sustainable pensions", which encourages the development of all forms of supplementary pension insurance as an opportunity to maintain high income replacement ratios at retirement.**

Defining the terms for affiliated parties and affiliated group parties can be considered **as a positive moment** in the legislation during this period. These more precise and expanded definitions greatly limit the investment of the pension assets in affiliated parties and prevent the possibility of conflicts of interest. The requirements to the persons in the governing bodies of the PICs also increase, in terms of education, competencies, etc.

With a special regulation of the FSC from 2018, the requirements to the information and advertising materials of PICs were further developed – besides the announcing of the realized return of the asset management of the respective pension fund, to use also measurers for the level of taken investment risk. Introduced was also a requirement that the disclosure of investment results of pension funds should be accompanied by specifying that a positive return is not guaranteed and the value of the pension shares might change. The regulation regulates the money-weighted method for calculating the real return on the individual accounts of the insured persons.

As **positive moments** from this period can be outlined also the coordinated legal changes, which led to a decrease of the maximum amounts of fees and deductions that PICs collect for the administration of the respective fund and for the management of their assets (Table 15). The purpose of the decrease of the maximum amounts of fees and deductions collected by the PICs is to capitalize as much of the insurance contribution as possible and thus to make the capital pension funds an even more competitive way of accumulating savings for future social security.

Table 15. Types and maximum amounts of fees and deductions in favor of PICs

Type	Supplementary mandatory pension insurance	Supplementary voluntary pension insurance
Fee upon entering the fund of each insurance contribution	• 2018 – up to 4% of the insurance contribution • 2019 and next years – up to 3.75% of the insurance contribution	up to 7% of the insurance contribution
Investment fee calculated on the value of the fund's net assets depending on the period during which they were managed	• 2018 – up to 0.8% of the fund's net assets • 2019 and next years – up to 0.75% of the fund's net assets	up to 10% of the income realized from the investment of the funds
Entrance fee for opening an individual account	no fee	up to 10 BGN
Fee for transferring funds from individual account to pension schemes of EU, ECB and EIB	PIC has the right to introduce an additional fee	PIC has the right to introduce an additional fee
Deduction for payment/withdrawal of amounts from the individual account	There is no deduction for payment of amounts to the survivors of a deceased insured person	PIC has the right to introduce a deduction for withdrawal before the occurrence of an insured event

Source: Social Security Code.

2.2. Development and problems of the universal pension funds

The main goals of the division of the mandatory pension insurance into public pension insurance in NSSI, where the pay-as-you-go principle of pension financing is applied, and supplementary pension insurance in a universal capital fund with individual pension accounts, are:

- to guarantee the pensions of the future generations in case of decreasing and aging population in Bulgaria;
- to increase the adequacy of the pension income by adding 10-15% from the second pillar of the pension system to the 40% income replacement ratio from the pay-as-you-go pension system;
- part of the growing domestic debt of the public pension system to be transformed into external debt.

Apart from protecting the current active generation against the risk of decreasing number of employed in the future, universal funds have other advantages too. The funds in the individual accounts are personal and inheritable. The presence of individual accounts should stimulate people to insure themselves on their actual incomes, which in turn leads to higher revenues for NSSI.

The development of the universal pension funds in Bulgaria has two clear periods – 2002-2010 and from 2011 to present.

The first period began with the initial selection of a fund by all people born after 31.12.1959 and contained a gradual increase of the number of insured persons, a gradual increase of the insurance contribution rate from 2 to 5%, an increase of the net assets and improvement of the management organization. Due to the low amount of social security contribution rate for UPF, the average amount of accumulated funds in 1 pension account was more than modest – 955 BGN at the end of 2010. The reason for this modest amount was the accession of new age cohorts with zero accumulations, or the presence of insured persons with a small number of insurance contributions.

The unmodified weighted yield from the UPF management from the beginning of this period until the 2008 economic crisis was relatively high and positive, i.e. it exceeded the consumer price index and the real rate of GDP growth (Table 16).

Table 16. Universal pension funds development (2003-2010)

Indicators	2003	2004	2005	2006	2007	2008	2009	2010
Real growth of GDP (%)	5	6.6	6.2	6.3	6.2	5.6	-4.2	0.1
Non-modified weighted yield (%)	10.59	11.74	7.59	7.35	15.38	-20.15	7.91	4.99
Consumer price index (%)	2.3	6.1	5	7.3	8.4	12.3	2.8	2.4
Real investment return (%)	8.29	5.64	2.59	0.05	6.98	-32.45	5.11	2.59
Insured persons (thousand)	1613.9	2004.8	2239.5	2442	2640.6	2814	2934.9	3045.7
Net assets (million BGN)	114	261.1	440.8	707.9	1228.4	1449.7	2178.6	2908.1

Source: NSI and Financial Supervision Commission.

Despite the deep financial and economic crisis, the overall result of the UPF's activity in the period 2002-2010 was positive. The amount of the net assets at the end of 2010 exceeded the gross revenues from social security contributions by 140 million BGN. The one-time paid amounts to people with disabilities and to the survivors of deceased insured persons were over 5 million BGN.

The second period of the UPF's development was characterized by a constant increase of the insured persons and of the accumulated net assets in the funds (Table 17). The achieved real non-modified weighted yield from the management of the pension assets was positive, except for 2011 and 2018. The net result of the UPF's activity for the period 2011-2019 was positive – the gross revenues from social security contributions were 9047.7 million BGN, and the amount of the accumulated net assets was 13 212 million BGN. To the positive difference of 4164.3 million BGN, which was a result of the capitalization, should be added the amounts paid to insured persons or survivors in the amount of 106.5 million BGN. Additionally, should be considered also the transferred funds to the Pension Fund at the State Social Security (about 160 million BGN) and to the State Fund for Guaranteeing the Sustainability of the State Pension System (from the individual accounts of about 14 000 persons who chose to be insured only in the first pension pillar from mid-2015 to early 2020). The average amount of the accumulated funds per 1 insured person at the end of 2019 was 3472 BGN. It should be specified that the individual amount of the accumulated funds on the accounts of the insured persons varied widely and depended on many factors, like length of the insurance period; social security contribution and social security income; regular payments of contributions to the fund; withheld fees; achieved return, and other circumstances. In other words, this average number included the persons with only 1 social security contribution and those with contributions during the entire period 2002-2019. Thus, the average accumulated amount in the individual account of the persons under 19 years of age was, for example, 141 BGN, and in the individual account of persons in the age group 50-54 – 4457 BGN.

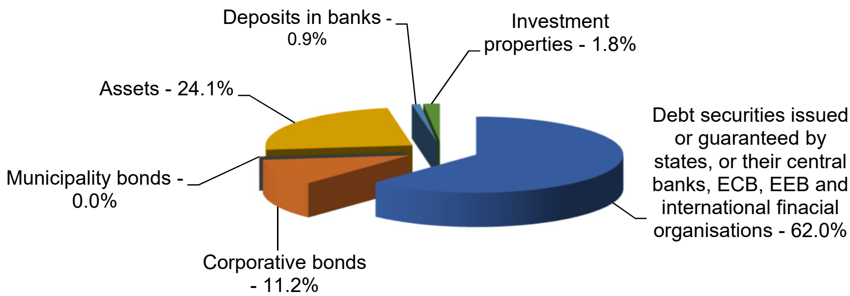
Table 17. Universal pension funds development (2011-2019)

Indicators	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real growth of GDP (%)	102.4	100.4	100.3	101.9	104	103.8	103.5	103.1	103.4
Non-modified weighted yield (%)	-0.41	7.47	4.73	6.14	1.47	4.1	6.34	-4.18	6.43
Consumer price index (%)	4.2	3	0.9	-1.4	-0.1	-0.8	2.1	2.8	3.1
Real investment return (%)	-4.61	4.47	3.83	7.54	1.57	4.9	4.24	-6.98	3.33
Insured persons (thousand)	3144.8	3239.4	3330	3421.7	3504.3	3576	3667.9	3731.1	3805.5
Net assets (million BGN)	3532.9	4487.1	5667.4	6638	7658	8900	10536	11193	13212

Source: NSI and Financial Supervision Commission. The 2019 data are preliminary.

As a result of changes in the legislation regulating the investment limitations in the management of UPFs, the portfolios of investment instruments of these funds also change. The general direction is towards diversification of the investments and increase of the share of the acquired foreign securities from the EU countries, ECB and EIB (Figure 48).

Figure 48. Investment portfolio of UPF (31.12.2019)



Source: Financial Supervision Commission.

There are two still unresolved issues in the development of UPFs. The first problem concerns the legal settling of the types of pension products that will be provided to the insured persons based on the accumulated amount in the individual account. Settling the payment stage from the second pension pillar in our country has not yet found an adequate legal solution. However, this should be done as soon as possible, because, according to the current legislation, the first pensioners from UPF are expected at the end of 2021, when some women born in 1960 will reach the retirement age set by SSC for the first pillar. The first larger groups of UPF pensioners are expected after 2024, when men born in 1960 will also reach the legally set retirement age. The many attempts to settle legally this issue so far have failed. The latest project, developed by a working group to the Minister of Labor and Social Policy[59] and officially presented at a round table in November 2019, offers a good enough choice between the following pension products:

- Life-time annuity – regular payment of fixed amounts, payable monthly or for another period (quarterly, six-month, etc.) specified in the pension contract, until the person's death. Within this type of product, a life pension with guarantees for the survivors of the pensioner is also offered (guaranteed payment period).
- Scheduled payment – the insured person acquires the right to choose between a life pension and a scheduled payment scheme if the guaranteed monthly amount of the life pension is less than 20% of the minimum amount of the pension for length of service and old age.
- Combined option of pension payment – scheduled withdrawal with a certain period of payment, which after that turns into a life pension.

However, the bill has not yet been approved by the government and has not been submitted to the National Assembly, and so this problem remains still unresolved.

The second problem regarding UPFs relates to the amount of the reduction of the individual pension from the State Social Security due to participation of the insured person in the second pillar of the pension insurance. Or the question is how much lower the social security pensions of those born after 31.12.1959 should be, because part of their pension insurance contribution is directed to their individual account in UPF and they have less participation in the revenues of the Pension Fund at the State Social Security.

The initial idea to reduce the NSSI pension of those born after 31.12.1959 by the ratio between the contribution to UPF and the required contribution to the Pension Fund (then 32%) was deliberately distorted. In the current active and applied legislation, the contribution of the insured people in UPF is reduced to only 12.8% social security contribution rate, without taking into account that in fact the payment of about 50% of the pension expenditures comes from these same people through the tax system. In order to balance the payment of pensions, the social security contribution rate to the Pension Fund should be around 36-37%. Since the deficit is covered by the tax revenues in the state budget, their contribution should be also assessed. **Then the social security pensions of those born after 1959 should be reduced by a ratio of 5:36 or 5:37, i.e. by about 13% and not 25-28%. Also, the reduction of the social security pensions should be a transitional rather than permanent measure.** It should be abolished once all those born before 31.12.1959 retire. Then the repeated thesis of government officials, trade union leaders and ill-informed people that "two pensions are less than one" will be groundless and the second pillar will be able to perform its functions to lead to an increase of the income replacement ratio initially by about 5-7%, and with full 40-year participation in UPF – on average by about 15%.

[59] The author of this part of the report was also a member of the working group, as a representative of the academic community.

2.3. Development and problems of the occupational pension funds

The main solution to the problem of the early retirement in Bulgaria was expressed in the creation of occupational pension funds (OPF) of capital type, which would take over the financing of the early pensions (maximum up to 8 years for the first category of labor and 3 years for the second category of labor) after 2010. For this purpose, the employers started to make social security contributions in OPF in the rate of 12% for the first category of labor and 7% for the second category of labor. This decision was based on the following goals:

- To reduce the fiscal pressure on the Pension Fund at the State Social Security regarding the early retirement, as it is organized on a capital basis and is entirely at the expense of the employer.
- To strengthen the personal interest of the employed people in the first and second category of labor to insure themselves on their actual wages and to exercise control over the employers on the payment of social security contributions.
- To create a flexible regime of early retirement with the funds from the personal account – postponed retirement leads to higher pension, to a one-time payment of the accumulated amount, or to its transfer to the UPF.

The development of OPFs can also be conditionally divided into two periods – until 2010 and after 2010. Table 18 presents the main parameters in the development of OPFs.

Table 18. Occupational pension funds development (2003-2010)

Indicators	2003	2004	2005	2006	2007	2008	2009	2010
Real growth of GDP (%)	5	6.6	6.2	6.3	6.2	5.6	-4.2	0.1
Non-modified weighted yield (%)	11.01	11.43	8.33	8.45	15.57	-23.13	7.85	5.16
Consumer price index (%)	2.3	6.1	5	7.3	8.4	12.3	2.8	2.4
Real investment return (%)	8.71	5.33	3.33	1.15	7.17	-35.43	5.05	2.76
Insured persons (thousand)	165	176	182.5	192.8	207.3	221.3	226.9	234.2
Net assets (million BGN)	143.8	200.8	253.3	314.3	411.4	367.2	449.4	517.4

Data on insured persons and accumulated assets in 2003 include cumulative data for the period 2000-2002.
Source: NSSI and Financial Supervision Commission.

The development of OPFs at the first stage included the initial choice of a fund by the persons working in the first and second categories of labor, and the formal distribution of the persons who did not make an individual choice in the three-month period from the beginning of the insurance. Here, too, similar to the UPF, the unmodified weighted nominal yield, as well as the real yield, were positive in the entire period, except for 2008. For the period 2000-2010, the gross revenues from social security contributions were 580.9 million BGN, and the amount of the net assets at the end of 2010 was 517.4 million BGN. In practice, the net result of the OPF's activity for the period up to 2010, however, was also positive, because from these funds the accumulated amounts in the individual accounts of the persons with early pensions from the NSSI were periodically transferred to the budget of the Pension Fund at the State Social Security. In addition, about 30 million BGN were paid to persons insured in this fund, or to survivors of deceased persons.

The average amount of the accumulated funds per 1 insured person at the end of 2019 was 4049 BGN. It should be specified that the individual amount of the accumulated funds on the accounts of the insured persons varied widely and depended on many factors, like length of the insurance period; social security contribution and social security income; regular payments of contributions to the fund; withheld fees; achieved return and others circumstances. Thus, the average amount accumulated in the individual account of persons under 19 years of age, for example, was 352 BGN, and the average accumulated amount of persons in the age group 50-54 was 5874 BGN.

Table 19. Occupational pension funds development (2011-2019)

Indicators	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real growth of GDP (%)	102.4	100.4	100.3	101.9	104	103.8	103.5	103.1	103.4
Non-modified weighted yield (%)	0.5	7.08	5.3	5.89	1.78	4.88	6.51	-3.57	5.5
Consumer price index (%)	4.2	3	0.9	-1.4	-0.1	-0.8	2.1	2.8	3.1
Real investment return (%)	-3.7	4.08	4.4	7.29	1.88	5.68	4.41	-6.37	2.4
Insured persons (thousand)	247.3	256.3	262.1	269.5	278.1	287.9	297.3	302.1	308.6
Net assets (million BGN)	471.1	568.9	659.9	760.1	832.9	935.5	1057.6	1078.2	1203.3

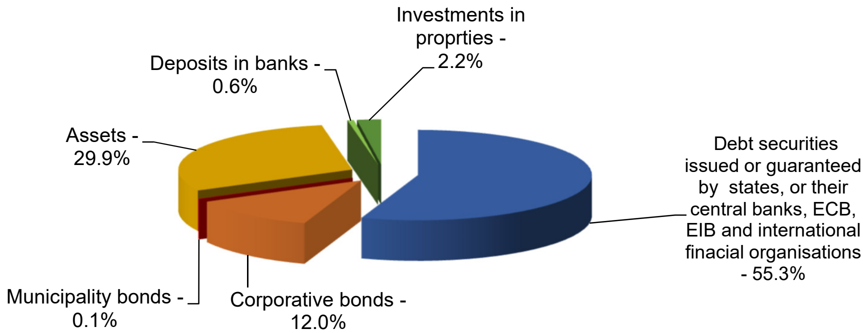
The 2019 data are preliminary.
Source: NSSI and Financial Supervision Commission.

For the period 2011-2019, the development of OPFs was slower compared to that of UPFs due to the decreasing number of employed people in the first and second category of labor.[60] The gross revenues from social security contributions were 836.6 million BGN, and the amount of the net assets at the end of 2019 was 1203.3 million BGN. The net result of the OPF's activity for the period 2011-2019 was positive – only as a result of the capitalization the assets increased by 366.7 million BGN. To this result should be added the periodically transferred to the budget of the Pension Fund at the State Social Security the accumulated amounts in the individual accounts of the persons with early pensions from NSSI, amounts paid to the insured persons or their survivors (44.6 million BGN), as well as a one-time payment of funds withdrawn from the individual accounts in 2011 (108 million BGN).[61] For the period 2011-2019, the amount transferred to the State Social Security budget from the individual accounts of the early retirees from the National Social Security Institute is about 300 million BGN.

The investment portfolio of OPFs changed over time depending on the legal investment restrictions and market conditions. Here, as with the UPFs, there was an orientation towards mostly fixed-income investments, and in recent years – towards decrease of the deposits in banks. Specific was that a higher level of liquidity was maintained, since OPFs made more payments to insured persons and transferred larger amounts to the NSSI from the accounts of the persons who had chosen early retirement under SSC (Figure 49).

[60] The actual insured persons are less than 100 000 people, including 90 000 people in the second category of labor and 7500 people in the first category of labor.
[61] By Decision №7 of 31.05.2011 of the Constitutional Court (promulgated SG, issue 45 of 14.06.2011, in force since 18.06.2011), this transfer was declared unconstitutional, but in reality the amounts were not reimbursed to the relevant occupational funds.

Figure 49. Investment portfolio of OPF (31.12.2019)



Source: Financial Supervision Commission.

There were also problems in the development of OPFs in Bulgaria, caused mainly by changes in the legislation. The new introduced policies were almost completely compromised by a permanent extension of the transitional period for the generous early retirement regimes of the specific groups working in the first category of labor and by a new increase of the number of category employed people. The retirement age for the employed in the first and second categories of labor was virtually frozen at its level until 2000, followed by a slight increase by 4 months in 2012 and 2013, and again frozen in 2014. In practice, the period of receiving early pensions from OPFs for the employed in the first category of labor was 13 years, or 5 years longer than the initially foreseen 8 years. For the second category of labor, the earlier retirement was 8 years, compared to the initially foreseen 5 years. Due to the low collection and the delayed adjustment of the social security contributions for OPF, the funds in the individual accounts at the end of 2010 proved to be insufficient to provide a good early pension for these extended periods.

In this situation, the PICs were unjustifiably found guilty and received groundless criticism and even insulting qualifications. The old NSSI regime to pay early pensions as a transitional period was extended until the end of 2014. Subsequently, with changes in SSC in 2015, early pensions paid by the NSSI were confirmed as a permanent measure with a slight increase of the retirement age. A legal opportunity was created for insured persons to transfer (without the possibility of refund) the accumulated amounts in their individual accounts to the NSSI budget and to receive promised high pensions from there. In other words, here too the problem of “moral risk” appeared, because such decision was made only by insured persons with minimal accumulations in their individual accounts. Thus, the idea to reduce the fiscal pressure on the State Social Security budget regarding the early pensions was not only unrealized in practice, but the public insurance system was loaded with new, impossible promises. The employed with a long period of participation in OPF and with high social security contributions took advantage of their right to an early pension from these funds, or a one-time amount of the accumulated amounts in their individual account. For example, in 2019, OPFs paid one-time amounts in the total of 2259 thousand BGN to persons who did not transfer their individual accounts to the NSSI.

2.4. Development and problems of the voluntary pension funds

Voluntary pension insurance, realized with contributions from the employer or only with contributions from the employed and the self-employed people, plays an important role in supplementing the pension incomes. The tax concessions for the employers and the employed are an incentive to participate in this third pillar of the pension system. Thus, 1 insured person in all three pillars of the pension system can rely on a pension income of up to 70% of the income received during his/her active life, and maintain his/her standard of living after retirement.

The development of the voluntary pension insurance in Bulgaria started in 1994, and its legal regulation was implemented in 1999 with the Voluntary Pension Insurance Act. There are also two sub-periods here – until 2010 (at the end of this period VPFs went through a critical point) and 2011-2019 (a period of relatively calm development). Table 20 shows the main parameters in the development of VPFs in the first period.

Table 20. Voluntary pension funds development (2003-2010)

Indicators	2003	2004	2005	2006	2007	2008	2009	2010
Real growth of GDP (%)	5	6.6	6.2	6.3	6.2	5.6	-4.2	0.1
Non-modified weighted yield (%)	9.68	11.64	9	6.83	16.55	-24.71	7.6	5.48
Consumer price index (%)	2.3	6.1	5	7.3	8.4	12.3	2.8	2.4
Real investment return (%)	7.38	5.54	4	-0.47	8.15	-37.01	4.8	3.08
Insured persons (thousand)	516.1	535.4	549.8	565.8	592.8	604.4	598.3	598
Net assets (million BGN)	252.7	325.5	418	495.2	678.6	481.7	526.3	558.9

Source: NSSI and Financial Supervision Commission.

Table 20 shows that the unmodified weighted yield was positive during the entire period, except for 2008, when the decline in the evaluation of the net assets was almost 1/4. Here the decline was higher than the decline in UPFs and OPFs, mainly due to the more liberal regime of investment regulation. As a rule, VPFs are also more dependent on the business cycle (Vekova, 2011).

Due to the voluntary nature of the insurance, there was a significant decline in the revenues from personal contributions during the crisis. From 108 million BGN in 2007, the personal contributions of persons insured in the VPFs fell almost twice in 2008, and to just over 20 million BGN in 2009 and the next years. The contributions from the employers also decreased significantly, as a result of which the total revenues from social security contributions fell from 154 million BGN in 2007 to about 60 million BGN in the next years. During the crisis, there was a mass withdrawal of funds from the individual accounts by the insured persons, not so much because of the need for livelihood, but because of the fear of bankruptcy of the funds. For example, in 2008 VPFs paid 126 million BGN, compared to an average of about 45 million BGN in previous years. Table 21 shows the development of VPFs during the second period.

The unmodified weighted yield during this period was positive, including as a real yield, except for 2011 and 2018. **With the gradual return of the trust in the capital pension insurance, the annual revenues from social security contributions began to increase, but reached their pre-crisis level only in 2018**.

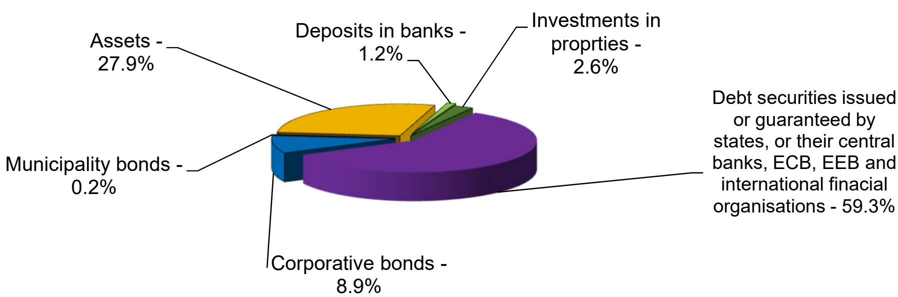
Table 21. Voluntary pension funds development (2011-2019)

Indicators	2011	2012	2013	2014	2015	2016	2017	2018	2019
Real growth of GDP (%)	102.4	100.4	100.3	101.9	104	103.8	103.5	103.1	103.4
Non-modified weighted yield (%)	-0.33	8.05	6.35	6.64	1.68	5.23	7.52	-4.56	5.2
Consumer price index (%)	4.2	3	0.9	-1.4	-0.1	-0.8	2.1	2.8	3.1
Real investment return (%)	-4.53	5.05	5.45	8.04	1.78	6.03	5.42	-7.36	2.1
Insured persons (thousand)	595.3	591	589.9	593.5	597.7	601.1	614.8	628.1	640.1
Net assets (million BGN)	564.7	620.4	674.6	757.6	837.1	910.4	1055.5	1077.5	1194.7

The 2019 data are preliminary.
Source: NSSI and Financial Supervision Commission.

The structure of the investment portfolio of VPFs does not differ significantly from that of UPFs and OPFs (Figure 50). Due to the need for higher liquidity, the share of the bank deposits is slightly higher. Real estate investments are also higher.

Figure 50. Investment portfolio of VPFs (31.12.2019)



Source: Financial Supervision Commission.

The role of VPFs in increasing the adequacy of the pension incomes in Bulgaria can be judged by the information on the average amount of accumulations in 1 personal account by age groups of the population (Table 22).

Table 22. Average amount of accumulated assets in voluntary pension funds per 1 insured person by gender and age (31.12.2019)

Gender/age	Average	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	64+
Men	2015	1105	462	766	1376	1548	2095	2366	2620	2513	2146	1318
Women	1630	1651	2605	725	1177	1536	1844	1800	1942	1734	1749	1148
Total	1850	1319	1220	750	1294	1543	1984	2128	2328	2167	1973	1247

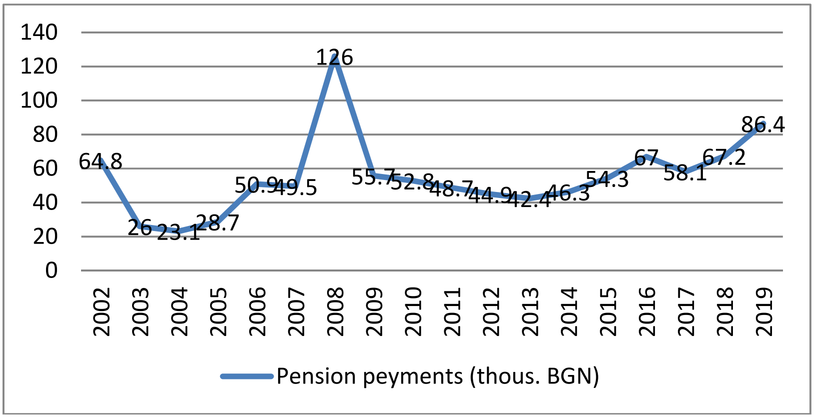
Source: Financial Supervision Commission.

The data on Table 22 show that VPFs play a very weak role in increasing the adequacy of the pensions in Bulgaria. The average amount of accumulated funds in the personal account of 1 person of pre-retirement age (age range 55-59) is 2167 BGN, including 2513 BGN for men and 1734 BGN for women. With all the conditionality (many of the individual accounts are inactive and have symbolic amounts), these data show that VPFs definitely cannot provide a good retirement income due to the low interest in them. One of the reasons for this is the low tax incentives, especially after the introduction of a proportional tax at the level of 10%.

The data on the amounts paid by individual years give a slightly better idea of the role of VPFs in supplementing the pension incomes (Figure 51).

Figure 51 clearly shows the peak of paying amounts from the individual accounts in 2008 during the financial and economic crisis and some increase in the recent years. The general conclusion that can be drawn about the role of the voluntary pension insurance in Bulgaria is that it plays rather the role of supporting savings accounts, including with the participation of the employer, but not of a system of permanent pension income in the form of a life pension.

Figure 51. Pension payments from VPFs



Source: Financial Supervision Commission.

2.5. Financial, economic and political challenges to the capital pension funds in Bulgaria

In the initial stage of its development, the Bulgarian three-pillar pension model of 2000 received governments' support and developed and improved in a calm environment. The attempt to transfer funds from the OPFs to the NSSI budget in 2011, and especially the changes in the SSC at **the end of 2014 and mid-2015, marked the beginning of its discrediting**. The reason for these changes was the fact that during the financial and economic crisis in 2008 many countries (mainly from CEE) limited the activity of the supplementary mandatory pension insurance[62] in order to reduce the deficit in the public insurance system through the following groups of measures:

- ***Restrictive policies (temporary or permanent) of the mandatory capital pension schemes*** – Estonia with temporary suspension of the contributions for the second pillar in 2009-2011 and subsequent compensation in 2014-2017; Lithuania with reduction of the contributions for the second pillar to 2.5%; Romania with a freeze of the social security contributions at 2% from the beginning of 2014, instead of 6% before that; Austria with a decrease of the state subsidies to the supplementary pension schemes in the third pillar; Belgium with a decrease of the tax preferences for the second and third pillars, an increase in the tax on the supplementary pensions at retirement at the age of 62; Croatia and Latvia with decrease of the management fees.
- ***Partial nationalization of assets and modification of the three-pillar pension model*** – Latvia with transfer of part of the contributions from the second to the first pillar; Lithuania with allowed payments of one-time amounts instead of annuities due to low contributions; Poland with transfer of assets in government securities to the public scheme, decrease of the social security contribution for the second pillar, obligation for gradual transfer of assets/funds from the accounts of the insured persons in the pension funds from the second pillar to the first pillar within 10 years before retirement of persons in a personal sub-account with the Polish Social Insurance Institute (ZUS).
- ***Opportunities for voluntary exit*** – "opt out" from the second pension pillar – Slovakia with opportunities for voluntary exit from the second pillar, schemes with defined contribution become voluntary for the new employees; Croatia and Romania with voluntary participation in the second pillar.
- ***Complete abolition of the second pension pillar and nationalization of its assets*** – Hungary with nationalization of the savings in the second pillar in 2011 and its de facto closure. The restrictive measures in Poland are also towards abolishing the second pension pillar (insured persons in the opened pension funds have two options – to transfer their assets to the newly created individual pension accounts that are part of the voluntary third pension pillar, or to transfer their assets to personal sub-account at ZUS).

In contrast to these restrictive policies, the EU encourages Member States to promote the development of supplementary voluntary pensions through occupational pension funds or personal savings. In many EC documents, supplementary insurance is considered an instrument to fill the pension gap and a factor for increasing the economic growth through the creation and development of the Capital Markets Union. In this direction is also the initiative for the creation and development of the voluntary insurance in a standardized for the EU product for personal pension insurance – pan-European personal pension product (PEPP). To some extent, this initiative can be considered a step towards the gradual creation in the EU of a single market for long-term savings or investment products (Dimitrov, 2016).

[62] According to ILO data, by 2018, 18 out of a total of 30 countries in the world, which in the period 1981-2014 have privatized all or part of their pension systems, have taken actions in the opposite direction (see Reversing Pension Privatizations, ILO, 2018).

Right in the spirit of this thinking and **in the spirit of the White Paper on Adequate, Safe and Sustainable Pensions, another group of countries introduced encouraging measures to develop supplementary pension insurance in the period during and after the 2008 crisis** – Czech Republic (easier regulation of the third pillar with encouraging and supplementing the contributions in the state subsidy capital schemes), Greece (introduction of tax concessions in the supplementary insurance), Spain (supplementary tax concessions for the capital schemes), Finland (reduction of taxes on the benefits in participation in the supplementary capital schemes, creation of a guarantee pension fund), Ireland (state protection for schemes with defined pensions, transition to schemes with defined contribution), Netherlands (increase of the contributions, liberalization of the regime, transition from schemes with defined pensions to schemes with defined contributions), United Kingdom (change of the tax rules, introduction of funds with low administrative costs and fees).

It is interesting that the Bulgarian government initiated and the National Assembly approved (through legal changes) policies to limit (discredit) the second pension pillar much later than the global financial and economic crisis, i.e. the crisis could not be considered a reason for such changes. The adopted amendments to SSC were the following:

- The right to choose to change the insurance in UPF from the beginning of 2015. The initially adopted legal texts at the end of 2014 required active (explicit) choice by the new entrants on the labor market for insurance in UPF, but after a strong public reaction with subsequent legal changes, in force from 15.08.2015, the mandatory nature of the insurance in UPF was restored upon initial occurrence of grounds for insurance. There is an opportunity for subsequent choice to change the insurance in UPF and switch to State Social Security, as well as return to UPF (opt-out, opt-in). The last choice can be made by the insured person not later than 5 years before reaching the retirement age. Upon transfer from UPF to State Social Security, the social security contributions and the accumulated funds in the individual account of the insured person are transferred to the silver fund or to the respective pension fund of the State Social Security.
- The right to a one-time choice to change the insurance in OPF from the beginning of 2015 and to receive an early pension from the Pension Fund after the transfer of the accumulated funds in the individual account of the insured person.
- Introduction of retroactive privileges for early retirees from the law enforcement agencies, category workers and other persons born after 31.12.1959, by recalculating and increasing the pensions, provided that the funds from the individual account are transferred to the NSSI.
- Cancellation of the increase of the social security contribution rate in UPF by 2 p.p. from 01.01.2017, with which the funds from the second pillar will not fully fulfill their function to provide higher supplementary pensions.

Amendments to SSC in mid-2015, under the harmless pretext that insured persons have the right to freely choose to participate in the second pension pillar, are not only regressive, but also contain great destructive potential, expressed in the following:

- Abolition of the three-pillar pension model and transition to a two-pillar pension model:
  - first, mandatory pay-as-you-go pillar (State Social Security);
  - second, voluntary capital pillar with 2 types of pension funds – with fixed and legally established social security contribution rate and with variable (freely negotiated) social security contributions.

Mass manifestation of the so-called "moral hazard" – insured persons with a low amount of accumulation in the individual account will transfer the risk to the public insurance system in order to unfairly receive the promised higher pension. On the contrary, insured persons with high amounts of accumulated personal amount in UPF or OPF will remain in the second pillar and will fairly receive higher pensions. The manifestation of the phenomenon "moral hazard" in the new texts in SSC will burden the State Social Security with huge additional expenditures in the medium and long term.

- Damage to the insured persons due to lack of yield during the stay of their funds in the so-called "Silver" fund and their return to the UPF.
- Future expenditures of the State Social Security from the retroactive privileges for the retired from the law enforcement agencies and the employed in the first and second category when recalculating their pensions.[63]
- Discrediting the entire pension system and escaping into the gray economy in the confrontation of the first and second pillars and the unjustified high, unfair reduction of the pensions when participating in UPF.
- Loss of interest in the capital pension funds by the insured persons – after the changes in the legislation from August 2015 the share of the officially distributed (through lottery) persons in the universal pension funds increased from 62.23% in 2015 to 88.38% in 2019.
- Robbing the future of the current young generation and killing a new progressive business – capital pension insurance, as a result of the covert nationalization of the personal pension savings.

In addition to these negative results, the legal changes of 2015 may become a risky circumstance not only for the capital pension funds, but also for the entire financial sector. The expected, but to some extent unpredictable (in the phenomenon "herd syndrome") transfers from UPF and OPF to the Silver Fund and to the NSSI budget require maintaining a high degree of liquidity. This can seriously disrupt the investment strategies of PICs and reduce their yield. These circumstances lead to risks not only for the capital second pillar of the pension system, but also for other institutions in the financial sector (stock exchange, custodian banks, investment funds, etc.).

[63] For example, an employed in the "Security" sector, with an average income who retired in 2015 and reimbursed to the NSSI budget the amount of about 7000 BGN accumulated in the UPF, received a pension increase from the State Social Security by about 100 BGN per month. In the long run, without taking into account the indexation, the NSSI will pay this pensioner an additional 40 000 BGN.

Conclusion

The analysis here shows that the capital segment of the Bulgarian pension system is put to a serious test, not so much because of objective processes of the economic cycle, but mostly because of the negative attitude of certain political circles and trade unions. In order to be able to fulfill its main goal – assistance in achieving better adequacy of the pension incomes for the future pensioners – the capital part of the Bulgarian pension model **should be supported through the following decisions**:

- Abolition of the so-called voluntary choice for transfer from UPF and OPF to State Social Security. This will preserve the classic form of the three-pillar pension system and will avoid the additional burden of the consolidated budget of the State Social Security on the phenomenon "moral hazard".
- Establishment of permanent rules for distribution of the mandatory social security contributions between the first and the second pillar and precise determination of the types of pensions from the capital pension funds and the conditions for their issuing.
- Introduction of a multi-fund system in the second and third pillars of the pension system, and the funds create portfolios with different profiles – conservative, balanced and aggressive (high-yield, but also high-risk).
- Regulating the stage of payment of pensions from the universal, occupational and voluntary pension funds, legally establishing the possibility of offering a wide range of pension products, according to the goals of each fund.
- Establishing a mechanism for guaranteeing the funds from contributions of the insured persons in the phase of accumulation in the second pillar (the so-called guarantee fund) as an independent legal entity on a solidary principle and at the expense and within each pension insurance company.

3. Conclusion

The pension insurance system in Bulgaria **is one of the indisputable achievements in the social area, the work of generations of experts, administrators and politicians. However, its development does not go quite smoothly and in accordance with the principles proclaimed in SSC**. Based on the analysis, the drawn conclusions and the presented arguments in this part of the report, it can be concluded that the goals originally set in the new pension model from 2000 are a good start. However, the subsequent reforms and the reforms of the reforms are contradictory and in most cases inadequate, and even destructive. With this general conclusion, the question of the motives provoking the mentioned contradictory legislative decisions in the pension system, as well as which are the "driving forces", is interesting.

Bulgarian scientists studying the development of the social security, including pension insurance as its main part, outline, analyze and conscientiously defend its basic principles. Their evaluations on the development of the insurance system are based on this. The teaching of social security in universities is also based on the insurance principles. In the past, as well as in the present, the educational literature and the way of teaching on the public and capital pension insurance, as an economic, legal or purely social science, do not differ in any way from the practice of the most famous universities in the world.

Deviations from the principles of the social security are most common in legislating and in the corresponding application of the legal norms in the insurance practice. Too often, politicians make unprincipled compromises by ignoring the basic principles of the insurance system in order to satisfy a certain professional group, or to push through some conjunctural or populist solution. Examples of such decisions, passed through the government, or proposed directly by parliamentary groups or individual members of the parliament, are numerous (Hristoskov, 2014, pp. 405-426). The reasons for this are various – populism, forced imposition of fiscal restrictions, misunderstanding of the nature and principles of the social security due to lack of professional capacity, and others. **The changes in SSC in 2015, for example, show strong short-term fiscal goals – to transform individual pension savings into public funds in order to cover current deficits against future huge state social security liabilities**. However, there is also a doubt that behind these changes are the interests of certain oligarchic circles, which by discrediting the second pillar of the pension system aim to depreciate some or all PICs and subsequently acquire them. With weak (or pleasing) financial supervision, this acquisition can be used as an instrument to manipulate the already weak capital market in our country, to “inflate balloons”, and to kill unwanted competitors. The attempt of an offshore company registered in a London law firm to purchase the largest pension company in Bulgaria confirms this thesis.

There are many cases to seek through pension insurance the solutions to problems related to the restructuring of other inefficient sectors in the economy – extractive industries, railways and maritime transport, military-industrial complex, agriculture, or to attract foreign investors. The burden of dismissals in the army and police was also transferred to the social security, sacrificing the principle of equality. These clear and covert manifestations of the so-called vertical solidarity and the large amounts of remittances it caused shaked the financial foundations of the pension system.

The most serious blows to the pension system by ignoring its basic principles (“autonomy”, “self-financing”, “tripartite management”, etc.) are **inflicted by the politicians** through almost doubling the insurance contributions and decreasing the insurance base. The motives here are to protect the corporate interests of the business, and the main instrument is lobbying. These interests are naturally hidden behind the expectations of improving the competitiveness of the economy, attracting foreign investments, limiting the shadow sector and others that have not happened in practice.

The other important “driving force” for violating the principles of equality of the insured persons, the adequacy and the equivalence, is **the trade unions**. In the entire period after the restoration of the financial independence of the State Social Security, the trade unions stubbornly defend the early retirement of as many professions and positions as possible, thus creating a privileged group at the expense of the people insured in the most common third category of labor. Maximizing the minimum (higher guaranteed amounts of minimum pension rates) and minimizing the maximum (for example, a pension ceiling) are other legal changes stubbornly advocated by trade unions and politicians.

Is it possible to rehabilitate the principles of the pension insurance and the Bismarck model in Bulgaria, or should there be a transition to a new model?

Social security reforms in Bulgaria, including the search for a new pension model in a Bulgarian way, is equal to being between Scylla and Charybdis. In attempts to solve the problems and find ways to deal with the challenges to the Bulgarian pension system, various proposals circulate in the public space, but not entire strategies. Most of the proposed reforms can be qualified as a product of either the left-wing populism or the already exhausting liberal pragmatism. The idea of the left-wing politicians, supported by the trade unions, for reforms in the pension model consists mainly of a change in the parameters of the pay-as-you-go model – a slow increase in the retirement age, introduction of early retirement schemes. When determining the pensions and their actualization, strongly redistributive models are proposed. Many politicians and some trade union leaders do not support capital schemes in the pension model or neglect their role and seek by all means to discredit them.[64] Right-wing political forces, supported by employers' structures, are in favor of limiting the pension expenditures and oppose an increase of the social security contributions. They believe that employed people's participation in financing the insurance system should increase to 50% and that an increasing share of pensions should be financed by indirect taxes.[65] A group of liberal economists, on the other hand, persistently repeat that the pay-as-you-go type of pension systems have outlived their time since they have entered the maturity stage and acquire the features of pyramid structures. For them, capital pension schemes are the only alternative to the outdated "Bismarck"-type pension model.

The desire to change the pension model should take into account the fact that social security in each country is based on the following levels and characteristics: Level I – customs, tradition, religion, social norms and ethics, industrial relations practice; Level II – constitution, state structure and public sector structure; Level III – principles, structural and material-legal norms, sources of financing and status of the insurance funds and the owned property; Level IV – management structure, management of resources, personnel, facilities and necessary equipments, etc. **Changing the pension insurance model affects all four levels and requires a long transition and huge resources. If a change in the established insurance model is demanded, it should be done not as a silent coup or with adventurous reforms imposed by force, but with a well-considered and socially acceptable strategy**.

A sharp transition of the public pension system (first pillar) of "Bismarck" type to a new pension model of "Beverage" type, as there are such proposals[66], cuts the accumulated insurance rights in the form of insurance length of service and income, on which basis

[64] We should not forget that pension funds of capital type are financial institutions and the dissemination of unreliable information about their state and classifying them as pyramids, without relevant evidence, should be pursued by the law, since it can lead to serious financial consequences.

[65] Financing pensions from the indirect taxes distorts the public relations, burdens the pensioners (in practice, 20% of the pension incomes are returned again in the budget) and limits the possibilities for financing other social programs in health care, education and social assistance. High indirect taxes have another flaw – they encourage tax frauds, which withdraw from the budget already collected revenues. The same illegitimate money is used for unregulated hiring and payment of labor, which further limits the incomes in the social security.

[66] Such a transition is recommended in many publications and public statements by economists from the Institute for Market Economy and the Center for Liberal Strategies. Such a transition was recommended to Bulgaria by the IMF in the 1990s when negotiating the terms of some loan agreements.

insurance contributions are paid. Such injustice to the people who have conscientiously performed their insurance duties can create enormous social tensions.

A **fair transition** to a fully capital model of pension insurance (again a proposal by the same economists) requires over 150 billion BGN to finance the accumulated rights of the insured people. It is obvious that the proposals for financing at this price with revenues from privatization, concessions or savings of the administrative costs, are not serious. The transition to a fully capitalized model of social security raises the issue of the double cost for the younger generation. Young and middle-aged people should finance the pensions of the current pensioners, including those who are at pre-retirement age and do not have the opportunity to accumulate in an individual account, and at the same time to make contributions to their individual accounts for capitalization. Also, the parallel functioning of the two models over a long period of time makes the administration more expensive and confuses people.

* * *

To avoid the risk of further erosion of the pension system and to restore the trust in it, consistent policy measures should be taken in compliance with the **following main rules**:

a) Strict adherence to the social security principles and their rehabilitation where they are violated.

b) Sticking to the philosophy, the legal and institutional framework of the insurance model established in Bulgaria.

c) Considering the three pillars of the pension model as part of a whole without opposing each other.

d) Compliance with the European regulations, directives and recommendations, as well as with all international acts in the social area to which Bulgaria is a party.

e) Predictability and social tolerance of the proposed changes in the short and medium term.

In addition to complying with these leading rules, policies should be timed in such a way as to avoid unbearable pressure on the public finances and leading to high budget deficits. In order to protect the insurance model from political interference, including regressive reforms, automatic mechanisms for self-correction and self-protection against demographic aging, inflation and other challenges should be put in place as far as possible.

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