

**Economic Research Institute at BAS**

---

**ANNUAL REPORT 2015**

**ECONOMIC DEVELOPMENT  
AND POLICIES IN BULGARIA:  
EVALUATIONS AND  
PROSPECTS**

**Focus:**

**Economic Development Policies in  
Operational Programmes and Common  
Agricultural Policy for the Period 2007-2013**

**Gorex Press  
Sofia, 2015**

The report analyzes the state of the Bulgarian economy in 2014 and outlines the perspectives for its development in middle term. The focus is on the economic development policies in the operational programmes and the Common Agricultural Policy in the period 2007-2013.

Analysis and forecast evaluation are directed towards a wider circle of specialists and most of all the state institutions, municipal and local governing structures, non-government organizations, scientific community and the general public. The conclusions about the macroeconomic development and policies concern the opportunities for improvement.

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

We wish to thank all the colleagues of the Economic Research Institute at BAS for their comments and recommendations.

The evaluations and projections are expert ones and reflect the views of the authors.

Scientific reviewers – Prof. Dr.Sc.(Econ.) *Rossitsa Rangelova*, Prof. Dr. *Tatiana Houbenova* and Prof. Dr. *Iskra Christova-Balkanska*

Editors – Prof. Dr. *Iskra Beleva* and Prof. Dr. *Mitko Dimitrov*

Authors:

*Iskra Beleva*

Introduction / Part two – (2), Conclusions

*Victor Yotzov*

Part one – I, II (3)

*Iglika Vassileva*

Part one – I (2), II (1) / Part two – (1)

*Alexander Tassev*

Part one – II (2)

*Emil Kalchev*

Part one – II (4)

*Grigor Sariiski*

Part one – II (5)

*Lubomir Dimitrov*

Part one – II (6)

*Stefan Ivanov*

Part one – II (7)

*Irena Zareva*

Part two – (3)

*Rossitsa Chobanova*

Part two – (4)

*Petko Avramov*

Part two – (5)

*Dochka Velkova*

Part two – (6)

*Darina Ruscheva*

Part two – (7)

*Ognian Bojukliev*

Part two – (7)

Text design – *Diana Dimitrova*

Publishing house “Gorex Press”

**ISBN 978-954-616-249-6**

**ISSN 2367-7112**

## CONTENTS

<b>ABBREVIATIONS</b>	4
<b>INTRODUCTION</b>	5
<b>PART ONE. ECONOMIC DEVELOPMENT AND MIDDLE-TERM FORECASTS</b>	9
<b>I. EXTERNAL ENVIRONMENT IN 2014 – AN ASSESSMENT AND SHORT-TERM PROSPECTS</b>	11
1. Analysis of the Global and Regional Trends	11
2. Indicators of Bulgaria’s Macroeconomic Development until 2017	17
3. Short-Term and Medium-Term Prospects	20
<b>II. ANALYSIS OF THE ECONOMIC DYNAMICS AND POLICIES</b>	22
1. Real Sector	22
2. Foreign Trade	24
3. Fiscal Policy and Government Debt	26
4. Monetary Sector	34
5. Banking Sector – Current State and Expectations	36
6. Labour Market	38
7. Decentralization Policy of the State Governance – Reasons, Results, Perspectives	41
<b>PART TWO. FOCUS: ECONOMIC DEVELOPMENT POLICIES IN THE OPERATIONAL PROGRAMMES AND THE COMMON AGRICULTURAL POLICY FOR THE PERIOD 2007-2013</b>	43
1. Estimate of the Contribution of EU Funds for Economic Growth by Production Factors	45
2. Policies for Encouraging Employment and Labour Productivity in the Operational Programme “Human Resources Development”, Priority Axes 1 and 2	52
3. Policies for Development of Human Capital through Education within the Framework of the Operational Programme “Human Resources Development”, Priority Axes 3 and 4	67
4. Policies for Promoting Research and Innovation within the Framework of the Operational Programme “Development of the Competitiveness of the Bulgarian Economy”	81
5. Policies for Development of the Transport Infrastructure within the Framework of the Operational Programme “Transport”	97
6. Policies for Development of Public Capital within the Framework of the Operational Programme “Environment”	112
7. Common Agricultural Policy of the European Union	123
<b>CONCLUSIONS AND RECOMMENDATIONS FOR DEVELOPMENT OF THE ECONOMIC POLICIES</b>	138
<b>REFERENCES</b>	149

## ABBREVIATIONS

AEP	- Agri-Environmental Payments
BNB	- Bulgarian National Bank
CAP	- Common Agricultural Policy
EC	- European Commission
ECB	- European Central Bank
EEC	- European Economic Community
EFRD	- European Fund for Regional Development
EIB	- European Investment Bank
EIF	- European Investment Fund
ESF	- European Social Fund
EU	- European Union
FTE	- Full-Time Employment
GDP	- Gross Domestic Product
IMF	- International Monetary Fund
JEREMIE	- Joint European Resources for Micro to Medium Enterprises
ME	- Ministry of Economy
MOEW	- Ministry of Environment and Water
MSE	- Ministry of Science and Education
NDP	- National Development Programme
NGO	- Non-Governmental Organization
NSI	- National Statistical Institute
NSRF	- National Strategic Reference Framework
OECD	- Organisation for Economic Cooperation and Development
OP	- Operational Programme
OPDCBE	- Operational Programme "Development of the Competitiveness of the Bulgarian Economy"
OPE	- Operational Programme "Environment"
OPHRD	- Operational Programme "Human Resources Development"
OPIC	- Operational Programme "Innovation and Competitiveness"
OPSESG	- Operational Programme "Science and Education for Smart Growth"
PISA	- OECD Programme for International Student Assessment
R&D	- Research and Development
RDP	- Rural Development Programme
SAPS	- Single Area Payment Scheme
SME	- Small and Medium-sized Enterprises
WEO	- World Economic Outlook (IMF report)
WSSCs	- Water Supply and Sewerage Companies
WWTP	- Wastewater Treatment Plant

## INTRODUCTION

For yet another year the Economic Research Institute presents to the scientific community, the institutions and the general public the annual report, analysing the economic development and the conducted economic policies.

The report analyses the state and development of the national economy in 2014 and presents the prospects for economic development in medium-term plan. The main economic sectors (real, monetary, financial and external) are examined; attention is drawn to the labour market and the progress of fiscal decentralization. The focus is placed on the economic policies for development, implemented within the framework of the Operational programmes for the period 2007-2013, and their impact on the factors of production.

*The main goal of the report* is to present most complete picture of the on-going economic processes in the country, so that they may in turn be comprehended and subjected to a detailed analysis. Specific conclusions and recommendations are formulated on the basis of the conducted analysis of the economic dynamics and the conducted economic policy. A substantiated medium-term macroeconomic framework, which reflects various assumptions about both the development of the external economic environment and the anticipated economic policies, has been recommended on the basis of a structural macroeconomic model.

The report consists of two parts. **The first part** presents analytical studies of the economic environment (internal and external), evaluations and short-term forecasts for the most important variable, embedded in the macroeconomic model. The tendencies in the development of the main macroeconomic parameters are presented as well as a forecast for the period until 2017. The formulated conclusions are focused on the improvement of the conducted policies.

**The first chapter** analyses the real sector of the economy. The overview of supply and demand and income distribution in the economy is conducted on the basis of the National Accounts of Bulgaria. The short-term indicators of economic activity are examined, including business climate, industrial production, retail and others. The role of the government in the manifestation of the evidenced tendencies in the real sector is assessed. The prospects for economic growth in medium-term plan are presented, while special attention is drawn to planned and other feasible policies, which could have an impact on growth in the short-, medium- and long-term plan.

**The second chapter** examines the commodity and geographical structure of export and import. It analyses the dependence of Bulgarian economy on import, the trade balance and the dependence of export on import. The relative share of commodities with low, medium and high added value in the structure of exports is assessed as well as the capacity of exports to contribute to GDP growth.

**The third chapter** focuses on the possibility to use the state budget as an instrument for stimulating the economy via implementation of the new approaches to calculating the so-called "fiscal space". The expenditure side of the state budget (the consolidated fiscal programme) and the short-term prospects fall within the context of the evidenced

tendency of growing pressure to increase state expenditures and government debt. The following two aspects of the income side of the state budget are analysed: development of the legal framework and the tendencies, characterizing the changes in the collection rate.

**The fourth chapter** presents a quantitative analysis of the state of the monetary sector since the crisis. It highlights the tendencies, characterizing the dynamics of economic activity in the sector, measured through GDP. Recommendations are formulated regarding political actions, aimed at changes in the indicators of the monetary sector with the limited arsenal of instruments of the “monetary” policy, conditioned by the Currency Board introduced in the country.

**The fifth chapter** traces the evidenced changes in the banking system in Bulgaria until the end of 2014. The registered short-term and medium-term tendencies are highlighted on the basis of this analysis. The dynamics of the asset structure (credit portfolio, securities, other assets) is analysed, including dynamics and structure of borrowed funds (in terms of source and maturity structure); key parameters of the main business lines and funds to support their activity (interest income rate, cost of funding, interest margin, tax income, share of administrative costs, return indicators). The formulated conclusions and recommendations serve as the basis for the identification of the factors, which determine the selection of the model of the banking system; highlighting the key characteristics of the main business lines in the banking sector; confirmation (or rejection) the basic hypotheses regarding the development of the banking sector and its participation in the economic processes in the country; highlighting newly evidenced tendencies (the degree to which such exist).

**The sixth chapter** analyses the influence of the decrease in the size of the labour force over the potential economic growth in the coming years and the effects of the demographic crisis over the size and structure of the workforce. It presents the dynamic of change of the working salary – real and nominal. The chapter examines the changes in income taxation of physical persons. It further formulates forecast assessments regarding labour demand in the medium-term and regarding the growth rate of the nominal and real wages.

**The seventh chapter** focuses on the fiscal decentralization. It assesses the problems and indicates the prospects for development of the decentralization process. Its positive effects on the development of the country are highlighted. The existing legal documents, which regulate the decentralization policy, are assessed as well as the results from the efforts to foster its implementation until this point. Recommendations for amendments for speeding the decentralization of resources and obligations between the state and the local authorities are formulated on that basis.

**The second part of the report** analyses the economic policies for development, which are implemented within the frameworks of the Operational programs for the period 2007-2013, and their impact over the factors of production. Until 2014, a total of EUR 11 283 million have been allocated and EUR 8571 million have been paid. This financial support provision from the European funds (Structural, Cohesion and other programs from the European budget) to the implementation of the economic policy played a notable role in the country’s development. Its role in economic development

is important, since this financial support was provided in conditions of strongly limited contribution of the other factors of growth (decreasing export, limited internal demand and decreasing investments).

It is expected that financial support to policy development will amount to EUR 7422 million during the new programming period. In the conditions of continuing economic recession in Bulgaria this European financing will be a significant stimulus for growth in the future. Our forecasts indicate that, as long as the country manages to reform its policies and institutions so as to mobilize the internal sources of growth, the European funds will continue to be of crucial significance in the short- and medium-term.

The goal of Part II of the study is to assess the policies, supported by the European funds during the period 2007-2013, and their impact (direct or indirect) over the factors of growth in a way that would ensure better economic development in the short- and long-term. The assessment of the results from the conducted policies and the identification of the shortcomings and problems during the period is the basis for the formulation of respective conclusions and the identification of the opportunities for increasing their efficiency during the next programming period (2014-2020).

The scope of the analysis are the policies, conducted within the frameworks of the Operational programs "Human resources development", "Development of the competitiveness of the Bulgarian economy", "Transport", "Environment" and the "Common Agricultural Policy of the EU".

The focus of the analysis is the impact of these policies over the factors of production – labour, human capital, R&D and innovations, public (infrastructural) capital, from the standpoint of their influence on economic development.

From a methodological standpoint the analysis of the impact of the policies over the factors of production passes through the following two stages:

First stage. Quantitative assessment of the growth, facilitated by the financial resources from the Operational programs, co-financed by European funds. This assessment is conducted via a production function devised especially for that purpose. The authors fully support the notion that this assessment of the effects is conditional in view of the availability of information and the methodological specificity. Taking this conditionality into consideration, Chapter 1 of the assessment includes:

1. Formulation of the model.
2. Collection and processing of the data for the indicators, which measure the factors of production.
3. Calculations of the elasticity of the production function by using Bayesian methods.
4. Calculation of the data for the cyclic component of economic growth and employment.
5. Calculation of the contributions of the factors of production to economic growth.

6. Exclusion of the contribution of the European funds to the achievement of the respective values of the individual factors of production.

Second stage. Analysis of the specificity of the economic policies, implemented within the frameworks of the Operational programs and their impact over labour, human capita, R&D and innovations, public capital (see Chapter 2-6), the Common Agricultural Policy (CAP) of the EU and the Rural Development Program in particular (see Chapter 7). The analysis includes:

1. Decomposing the policies at the different levels and assessing their contribution to the achievement of the strategic development goals in the respective field;
2. Analysis and assessment of the implementation of these policies from the standpoint of the financial resource;
3. Assessment of the degree of realization of the decomposed policies in comparison to the goals of the Operational programs;
4. Analysis of the results. The focus is placed on how these policies have contributed to changes in the respective factors of production and to economic development over different time horizons.

The assessments conducted by the authors are based on the publicly available information, which is presented on the respective websites of the government, the ministries and agencies, the NGOs as well as statistical publications and reports, scientific studies by Bulgarian and international researchers. The information includes: amount of the financial resources (contracted, certified and paid), the documents of the Operational programs, including said programs, the annual reports on their implementation, preliminary and intermediary assessments and audit reports. The approaches, applied to the set of documents and informational sources, differ and are based on both statistical, accounting and planning documents and on a large number of sociological studies, comparative analyses and analytical assessments of good practices, etc.

The specificity of the policies, conducted within the frameworks of the different axes, which stems from the types of executed activities, the indicators used to measure change and the scopes of these policies (the extend, to which they are tied to European, national or regional policies) does not allow for utilization of a singular framework of analysis of their impact over the factors of production. Hence, in addition to the general conceptual framework (goals, financial resources and results) the different sections of Part II of the report also include other aspects, such as compliance with European criteria and standards, level of regional disparities and others.

The formulated conclusions and recommendations constitute expert assessments of the authors and reflect their broad scientific and practical experience in the field of analysis and assessment of economic development and of the policies conducted in the respective areas.

**PART ONE**  
**ECONOMIC DEVELOPMENT AND MIDDLE-TERM**  
**FORECASTS**



## **I. EXTERNAL ENVIRONMENT IN 2014 – AN ASSESSMENT AND SHORT-TERM PROSPECTS**

### **1. Analysis of the Global and Regional Trends**

The past 2014 was another difficult year for the Bulgarian economy. What makes it different from previous years was the building up of a political tension, which led to the second provisional government and the second early general election within only 18 months, and also to the bank micro crisis resulting in the closure of Corporate Commercial Bank. Certainly, these events have affected the economic activity, but it seems fears were stronger than the real negative effects, indicated by the higher GDP growth rate in 2014 in comparison with the previous year. From the perspective of the ongoing global processes, for seven years now after the beginning of the global financial crisis (GFC), the economic situation in the prevailing part of the world is still complicated and uncertain. The aggressive and intensely expansionist monetary policy pursued by the developed countries gave certain results but it is still unable to lead to a lasting credit growth and sustainable increase of domestic demand. On the other hand, fiscal consolidation and holding back of wage levels in many of the developing countries contribute to the relatively weak growth demonstrated globally, and most likely this is not just a short-term trend. The problem with the global imbalances, which were important factors that triggered the financial crisis in 2008, has not been fully resolved and the danger of entering into a deflation spiral has not been overcome.

The financial sector continues to dominate prominently over the real economy, and this trend even seems to be on the rise. In 2008 and 2009, there was a strong pressure for decisive reforms of the international financial structure and the international financial institutions. For a period of time, this seemed not only necessary, but achievable as well. The reforms made, however, proved to be only cosmetic and they did not change at all the existing international financial architecture. There are no essential reforms on a national level either, and where there were any reforms at all, those were rather timid, cautious, and slow. From this perspective, in short term the financial sector cannot be expected to exert any significant positive influence for recovery of economic growth rates to their pre-crisis levels. In view of its short period of implementation, the policy of “quantitative easing”, undertaken recently by the European Central Bank (ECB) (similarly to the Fed’s policy in the recent years) is difficult to assess. The initial results were encouraging but there is a haunting impression that it was rather delayed.

To a certain extent, some of the developing economies managed to mitigate the GFC consequences by conducting a mix of expansionistic macroeconomic policies. Their impact, however, has been exhausted and there are already clues (first of all in USA) that the period of low interest rates is approaching its end. Furthermore, prior to the GFC, the developing countries’ exports used to increase at fast rates, which justified the adoption of a policy of export-oriented growth in those countries. This trend used to be supported by the strong domestic demand in the developed economies and in the first place in USA. On its turn, the growing consumer demand was accompanied

by growth of household indebtedness, which made the whole model rather unstable. More and more arguments are found in support of the understanding that the global economic development is on the threshold of a serious structural change, and the countries, which are strongly dependent on exports should reconsider and review their strategies. This conclusion has a serious implication for the Bulgarian economy, which may also be reckoned among the countries with strong external sector dependence.

The effect of the external environment on the Bulgarian economy was unequivocal. On the one hand, the signs of recovery in the past year in some of our important trade partners reflected positively on the external demand and the volume growth rates of exports<sup>1</sup> continued the positive trend from the previous year. On the other hand, uncertainty continues to be a distinctive feature of both the global and the Bulgarian economy. The persistent feeling of impending danger for the political and economic stability, culminated in a second in a row government resignation and new early elections, which, however, failed to make the political environment more stable. This year, local elections will be held too. They are expected to bring more clarity as to the political distribution of forces, which, given the conditions in Bulgaria, has traditionally had economic consequences as well. Evaluation of the economic consequences of political instability has always been a difficult task. What may be safely said is that the strongly fragmented political space once again will not permit defining and upholding of clear economic priorities. Most likely, groping about among different and often mutually exclusive concepts for the future of economic development will continue in the years to come. With a great degree of certainty, it may be expected that after the easing of financial restrictions in the last two years, in the short term there will be an attempt at fiscal consolidation and an endeavor to meet the requirements laid down in the Public Finance Act, limiting the deficit under the consolidated budget programme to 2% of GDP. Despite the declared fiscal consolidation goals, the resolution recently adopted by the government (and approved by the Parliament) for issuing of a large external debt creates new opportunities for the economy, but serious challenges too. Obviously, in a short and long-term perspective, a priority for each government will be to prevent the dangers of the country entering into a debt spiral.

Given Bulgaria's close economic and political relations with the EU member states, the impact of the economic environment on the Bulgarian economy is considered mainly through the prism of the situation in Europe, and it is unequivocal. The diffident and often inconsistent actions of the EU leadership in terms of debt crisis management increased the feeling of confusion, which makes investors (big and small alike) keep on abstaining from initiating new projects in expectation of better times. More significant changes actually occurred at the beginning of 2015, when ECB declared a new set of untraditional measures aimed at avoiding entering into a deflation spiral, and stimulation of the lending activity of banks.

---

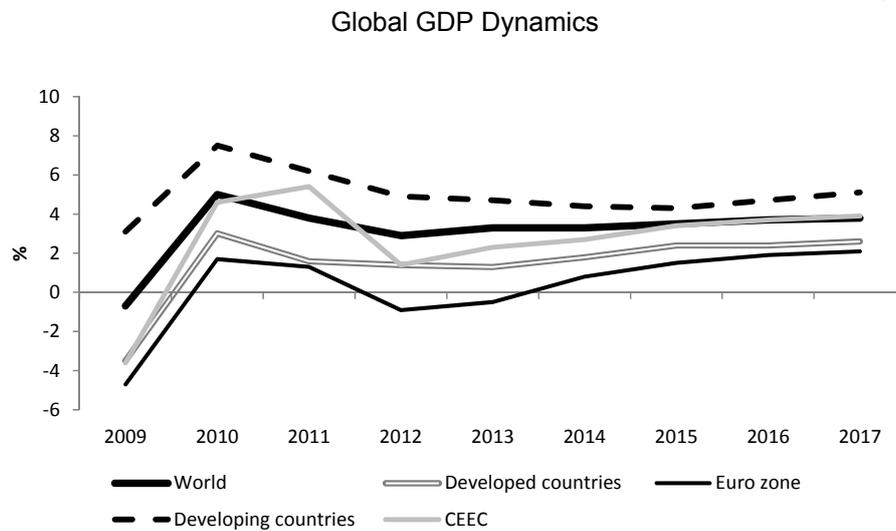
<sup>1</sup> Value growth rates of exports, however, marked a negative growth due to a decrease in the export price index by approximately 5% (according to the preliminary data of NSI).

### 1.1. Economic Activity

The world economy marked a growth of about 3.3% in 2014. The growth rate slightly accelerated (particularly in the second half of the year) in comparison with the previous 2013, but still remains far from the pre-crisis levels. Generally, the expectations of an increase in consumer demand in the developed countries were confirmed, and the unexpected growth of inventories accounted for the slightly higher growth rate. No abrupt change was observed in the trends in the developing countries, and exports are still the main driver of economic growth. However, there are indications, most clearly manifested in China, that in the future increasing attention will be drawn to encouraging domestic demand. At this stage it is difficult to judge how strong and stable this trend is, but a similar scenario is possible and it is likely to have important consequences for the development of global economy and trade.

Global growth remained low in the past year, while accompanying risks continued to be high. Thus, the people in power at both national and corporate levels are faced with new challenges. In practice, the concerns of our foregoing forecast, that the expected and already commenced turn in the monetary policy pursued by the US Federal Reserve reflected in unexpectedly high hike of the yield on long-term financial instruments, were realized. This trend definitely involves risks for the developing economies, where economic activity slows down and the quality of financial assets continues to deteriorate.

Figure 1



Source: IMF, WEO Update, January 2015.

In spite of the expectations that the slowdown of economic dynamics in the emerging markets and developing economies will be overcome in this and the next year, growth rates remain more or less at the same levels as in previous years. At the same time, the volatility of financial markets and of the capital flows to those countries is

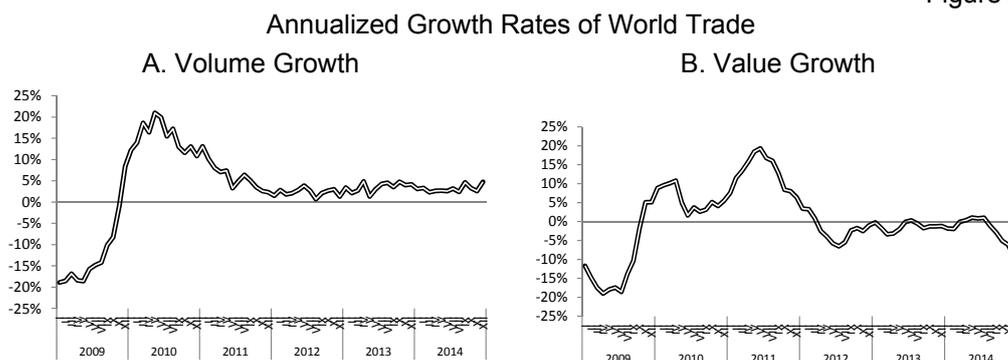
increasing. Sharper changes in portfolio investments and withdrawal of capital in the short term are also possible, particularly if (or rather when) the Federal Reserve decides to expedite lowering the supply of reserve money and to opt out of untraditional monetary policy instruments. This could be possible, even desirable, provided there is no real danger of development of deflation processes.

### 1.2. Trade

After the unusually high growth rates in 2010, world trade continued to grow both in volume and value terms but at growth rates considerably lower than in the pre-crisis years. The global trend of decline of commodities prices in the recent two years was manifested in an initial holdback, and subsequent decrease in value growth rates – a trend, which may also continue during this year.

In recent years, world trade growth declined both in absolute terms and in comparison with global economic activity. It is worthwhile noting that while the average ratio of import growth (globally) to global GDP growth was 1.8 before the financial crisis, in 2013 it dropped to about 1, and in 2014 that ratio dropped even below 1, and the trend was much more strongly manifested in the developing countries. Actually, the degree to which trade dynamics corresponds to economic activity depends on which components of demand influence most strongly on the GDP growth. In great part of developed countries, GDP growth decreased due to the fact that the respective components of demand (whether investment goods or inventories) featured a high relative share of imports. What happened in many developed countries is that investment growth practically was brought to naught (even in some countries it became negative), which almost immediately impacted trade and imports in particular. On its turn, the decline of investments is associated with deterioration of the business climate and economic uncertainty.

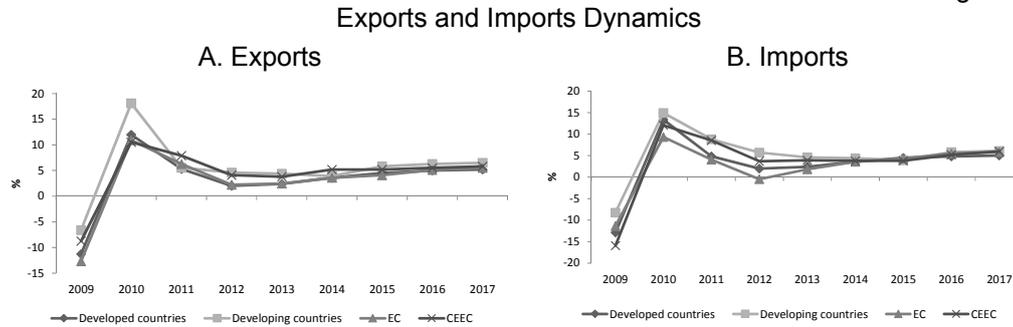
Figure 2



Source: CPB, World trade monitor.

In line with the pursued policy of fiscal consolidation and limiting of domestic demand, the Eurozone countries fell into recession in 2013, and as late as in the second half of 2014 signs of recovery were observed, to a great extent related to the introduction of non-standard monetary policy measures.

Figure 3



Source: IMF, WEO Update, January 2015.

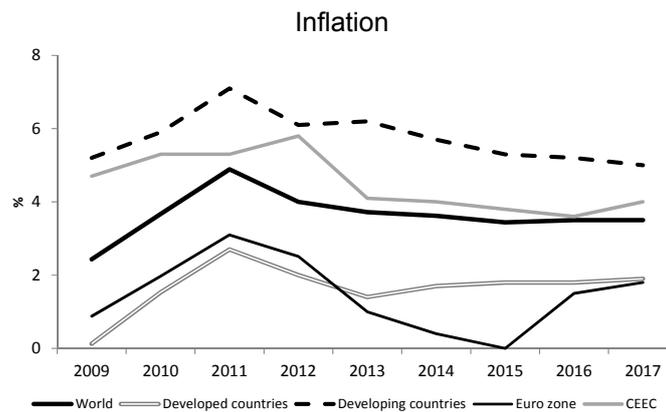
The developments in global trade in the past year provide grounds to expect a slight increase of growth rates in the short term, generally comparable with the increase of economic activity. The trade volumes elasticity to economic activity, however, will remain at considerably lower levels than in the pre-crisis years and probably this will be a trend of a more stable nature.

### 1.3. Inflation and Prices of Commodities

Inflation rates, both globally and regionally, continued to decrease in 2014. The only exception is the group of developing countries where price level growth rates remained relatively high.

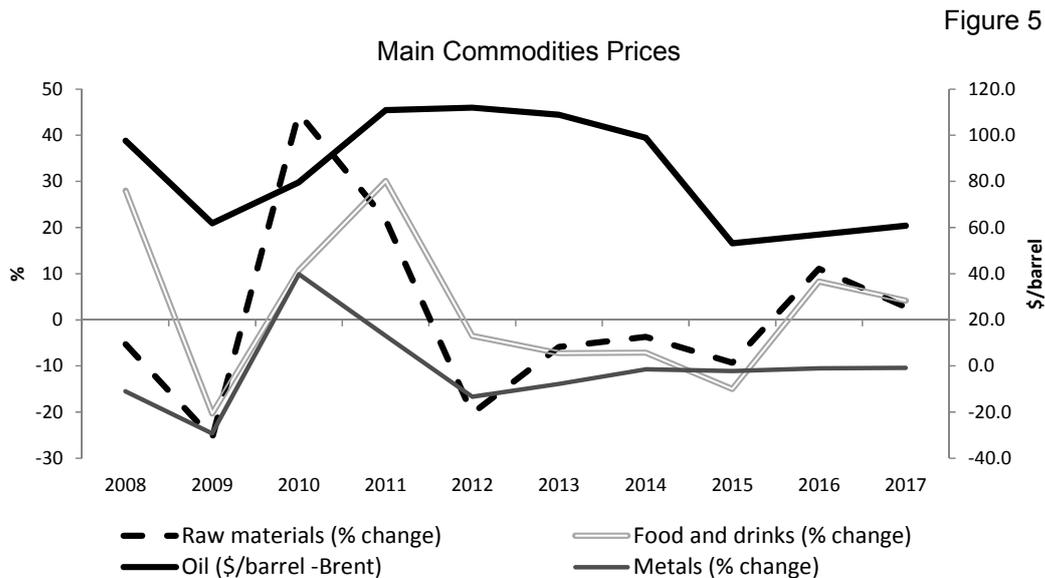
In 2014 annual inflation in the Eurozone member states decreased once again compared with the previous year, despite the increase of indirect taxes and administered prices in some countries. The downward trend of inflation rates is due to a great extent to the commenced fiscal consolidation, and the trend is expected to continue also in 2015.

Figure 4



Source: IMF, WEO Update, January 2015.

Oil prices began their downward trend as early as in 2013, and the trend sharply accelerated in the second half of 2014. Longer-term projections of oil prices are very risky, since the factors impacting them are far from being only economic. From the perspective of recovery of global economic growth rates, there are reasons to expect a gradual increase of energy prices, but the regional conflicts in the Gulf, as well as the political tensions in relation to the conflict in Ukraine, may exert serious influence in the direction of further price decline.



Prices of basic raw materials and inputs remained generally stable in 2014, reflecting the modest economic growth rates and the still suppressed demand in large part of the world. What is of basic importance for Bulgaria are the prices of metals (particularly non-ferrous metals), which have a significant share in our exports. The trend outlined in this area is towards a sustainable decrease of prices in that group, which is in principle procyclical. With the end of the recession in the Eurozone in the second half of 2014 and the acceleration of economic growth in the group of developed countries as a whole, a trend turnaround is expected in the raw material prices. Concerning foods and beverages, more significant changes may be expected as late as in the coming year, and most likely in the current year we will witness a drop in the prices of this group of goods. Prices are more likely to remain subdued in a longer term, but forecasts in this area have always been strongly dependent on climate conditions, which have no definite trend.

## 2. Indicators of Bulgaria's Macroeconomic Development until 2017

### 2.1. Main Assumptions

Bulgarian macroeconomic development by 2017 is projected based on key assumptions about the dynamics of the international prices of oil, food, metals and raw materials in total. The outlook on external demand is also taken into account through the dynamics of international trade and the GDP of EU. The forecast also takes into account the underlying government economic policies, as outlined in the updated medium-term budgetary framework as of January 2015. The key assumptions in the macroeconomic forecast till 2017 are presented in the table 1. The forecast is developed on the basis of macroeconomic information available as of April 8<sup>th</sup>, 2015.

Table 1

Key Assumptions in the Macroeconomic Outlook

Indicator	Source of information	Reported data					Preliminary data 2014	Forecast		
		2009	2010	2011	2012	2013		2015	2016	2017
International crude oil prices (index, 2005 = 100)	IMF, WEO	115.8	148.1	194.9	196.8	195.1	192.6	186.2	182.4	178.9
International prices of food and industrial products (index, 2005 = 100)	IMF, WEO	127.4	161.2	190.0	171.0	169.0	163.8	157.1	155.9	154.6
International prices of metals (index, 2005 = 100)	IMF, WEO	136.5	202.3	229.7	191.0	182.9	169.2	166.2	167.3	168.0
Real GDP growth in EU (index 2005 = 100)	IMF, WEO	103.2	105.2	107.1	106.8	107.0	108.5	110.4	112.6	114.9
World trade volume (index 2005 = 100)	IMF, WEO	108.8	122.5	130.7	134.5	138.5	143.8	151.0	159.2	168.1
Current expenditure (million BGN)	MF, medium-term budget forecast as of January 2015	21275	22419	23012	23338	25371	26605	26274	26644	26872
Contribution to the EU budget (million BGN)		746.2	669.7	779.2	809.3	934.1	954.9	979.9	934.9	966.8
Budget balance (million BGN)		-626.2	-2822.7	-1510.0	-358.8	-1440.7	-3048.3	-2481.4	-2125.8	-1769.2
Public domestic debt (million EUR)		1539	2012	2458	2547	3216	4219	4233	3913	4645
Public external debt (million EUR)		3290	3374	3488	4445	4003	7082	8093	9364	9340

Source: IMF, Ministry of Finance (MF), own calculations.

The assumptions for external demand and international prices are taken from the IMF World Economic Outlook report from October 2014, since it contains the most up-to-date data forecasts of international prices and external demand, available at the time of the projection development.

Another large set of projection data, considered exogenous for the model, are obtained from the medium-term forecast for the period 2015-2017, as adopted by

Decision No 24 of the Council of Ministers on January 16<sup>th</sup>, 2015 for approval of amendments to the updated medium-term estimates for the period 2015-2017, approved by Decision No 791 of the Council of Ministers in 2014. Adopting the projected values of certain budget-related indicators, we explicitly take into account the ability of the government to directly influence on the amount of public debt and budget expenditures, assuming that the objective for the budget deficit will be achieved mainly by adjustments in the public capital expenditures.

## *2.2. Current Developments and Projections of the Macroeconomic Indicators until 2017*

Over the past three years the Bulgarian economy has experienced a gradual recovery, materialized in still low, but accelerating GDP growth. We expect this recovery to continue over medium-term plan, where in 2015 a slight deceleration in growth to 1.4% yoy in forecast, mainly due to expected lower government consumption and a decrease in inventories. Private consumption is expected to maintain its growth from the previous year, while investment and exports are projected to increase their growth rate. In a medium-term plan, economic growth in Bulgaria will accelerate to 2.5% in 2017. It will be driven by improving international and domestic business environment, with a positive impact on investment. Expected income increases will determine the gradual recovery of consumption. Export growth will accelerate, but the negative contribution of the external sector to growth will deepen.

Low international prices, the gradual recovery of domestic demand and low credit activity will have a negative pressure on inflation, where average inflation is expected to remain in the negative territory this year, partly due to base effects from 2014. Positive pressure on consumer prices will be exercised only from the planned raise of excise duties on tobacco products in 2015 and the increases in the minimum wage in the country, respectively to 360 BGN from January 1<sup>st</sup>, and to 380 BGN from July 1<sup>st</sup>, 2015.

The gradual recovery of the Bulgarian economy will be reflected in moderate improvement of the labour market. Unemployment rate is expected to fall below 10% at the end of the forecast period, mainly due to an increase in employment, but partly also due to a contraction of the workforce. The participation rate, however, will continue to increase due to the expected decrease in the working age population in Bulgaria.

Despite repayments of the global bonds in January and the bridge loan in March 2015, the newly issued external debt at the end of March 2015, amounting to 3.1 billion EUR, as well as the expected foreign direct investment in the country of around 1250 million EUR, will drive the increase in BNB international reserves.

The prospects for annual deflation in 2015 will determine the slowdown in the velocity of money in the country. The monetary aggregate M3 is expected to grow by 3.6% this year. Low demand for credit and higher risk criteria of the commercial banks will lead

to an increase in credit to the non-government sector only by 1.6% in 2015. Private lending growth rates are expected to accelerate gradually to 4.6 % in 2017.

Table 2  
Projections for Bulgaria's Macroeconomic Development till 2017

Indicators	Reported data					Preliminary data	Forecast		
	2009	2010	2011	2012	2013	2014	2015	2016	2017
GDP in current prices (million BGN)	70562	71904	78434	80044	80282	82164	82714	85031	88462
GDP, real growth (%)	-5.0	0.7	2.0	0.5	1.1	1.7	1.4	2.1	2.5
Consumption, real growth (%)	-6.6	0.8	1.8	2.9	-1.3	2.4	1.5	1.8	1.6
Investment, real growth (%)	-22.9	-20.1	-3.6	2.2	-1.3	4.1	2.9	3.7	5.1
Export of goods and services, real growth (%)	-11.7	17.2	11.5	0.8	9.2	2.2	3.1	4.0	4.3
Import of goods and services, real growth (%)	-21.5	4.1	8.5	4.5	4.9	3.8	3.7	4.1	4.1
Average annual HICP inflation (%)	2.5	3.0	3.4	2.4	0.4	-1.6	-0.5	0.9	1.8
End-of-period HICP inflation (%)	1.6	4.4	2.0	2.8	-0.9	-2.0	0.8	0.9	1.8
Employment rate (15+ years of age, %)	49.4	46.7	46.6	46.6	46.9	48.0	48.5	49.0	49.6
Unemployment rate (15+ years of age, %)	6.8	10.2	11.3	12.3	12.9	11.4	10.8	10.4	9.8
Average monthly salary (BGN)	609	648	686	731	775	828	852	901	957
Trade balance (million EUR)	-4174	-2764	-2156	-3460	-2430	-2902	-3176	-3294	-3348
Trade balance (% of GDP)	-11.6	-7.5	-5.4	-8.5	-5.9	-6.9	-7.5	-7.6	-7.4
Current account (million EUR)	-3116	-533	33	-458	848	19	-90	-868	-913
Current account (% of GDP)	-8.6	-1.5	0.1	-1.1	2.1	0.0	-0.2	-2.0	-2.0
Financial account (million EUR)	1163	-673	-886	1255	-1477	1955	2074	1574	646
Financial account (% of GDP)	3.2	-1.8	-2.2	3.1	-3.6	4.7	4.9	3.6	1.4
Gross external debt (million EUR)	37816	37026	36295	37714	36924	39558	42005	43545	43954
Gross external debt (% of GDP)	104.8	100.7	90.5	92.2	90.0	94.2	99.3	100.2	97.2
Credit to non-financial enterprises and households (million BGN)	51585	52280	54260	55755	55911	51613	52453	54373	56863
Credit to non-financial enterprises and households (growth, %)	3.8	1.3	3.8	2.8	0.3	-7.7	1.6	3.7	4.6
Monetary aggregate M3 (million BGN)	47690	50741	56922	61722	67236	68006	70433	74578	79965
Foreign currency reserves (million EUR)	12919	12977	13349	15552	14426	16534	19834	21125	21624
Coverage of the monetary base with foreign currency reserves (%)	195.2	179.8	175.1	174.9	162.9	165.1	165.1	162.7	158.3
Budget revenues (million BGN)	25041	23933	25357	27469	28977	29407	29714	29977	31023
Budget expenditure (million BGN)	25667	26755	26867	27828	30418	32455	32195	32103	32792
Budget balance (million BGN)	-626	-2823	-1510	-359	-1441	-3048	-2481	-2126	-1769
Budget balance (% of GDP)	-0.9	-3.9	-1.9	-0.4	-1.8	-3.7	-3.0	-2.5	-2.0
Fiscal reserve (million BGN)	7673	6012	4999	6081	4681	8117	6985	6720	6335
Public and publicly guaranteed debt (million BGN)	10641	11775	12826	14682	14893	22758	24107	25968	27353
Public and publicly guaranteed debt (% of GDP)	15.1	16.4	16.4	18.3	18.6	27.7	29.1	30.5	30.9

Source: National Statistical Institute, Ministry of Finance, Bulgarian National Bank, Eurostat, own calculations.

### **3. Short-Term and Medium-Term Prospects**

The economic outlook for Bulgaria in this and the next two years is moderately favorable. Bulgarian economy is open and strongly dependent on external demand and external financing. Given the mostly European orientation of foreign trade flows, we can hardly rely very much on exports as a significant factor of growth, at least not as much as in 2010 and 2011. External financing in the form of direct foreign investment will also be far from the levels achieved in the years before the global financial crisis. Having in mind both factors, it is easy to make the conclusion that in short and medium-term plan growth will remain rather low and unstable.

Further forecasts in the report are based on the assumption that in the short term global GDP growth rates will gradually but slowly increase, and the expectations are based on data showing certain improvement of the business climate. This is also confirmed by the condition of the financial markets, which continues to improve, as is evident from the increasing indexes, and from the decreasing stock market volatility. The contribution to global GDP, however, is extremely uneven in terms of regions and groups of countries. In the developed countries even in a long-term perspective forecasts remain extremely vague in view of the high level of household indebtedness and the need of a more restrictive fiscal policy, which would suppress economic growth in the foreseeable future. Growth in the developing countries, though lower than in the pre-crisis years, will remain high. What matters for Bulgaria, however, is first of all the situation in the EU, and particularly in the Eurozone, as the country's main economic and political partner.

In a more global aspect, the world economy is in a process of a gradual recovery of economic activity, but the achievement of the pre-crisis growth rates is practically impossible in the short term. The moderate optimism is due, in the first place, to lower energy prices and faster than expected recovery of the economy of USA. At the same time, there are counteracting factors, most notable among which are the economic sanctions against Russia, which have an unfavorable effect not only on the directly affected economy but in broader terms as well. The instability of forex markets and the sharp depreciation of the euro are factors with consequences difficult to forecast. This may possibly assist (to a certain extent) the external demand of the Eurozone member states but it is not clear how this would affect some of the markets in the developing countries. Last but not least, the somewhat disappointing developments in some of the most important developing countries and China, in the first place, should be noted.

From the perspective of the above factors, a conclusion can be made that global recovery is characterized with high degree of unevenness between both the developed and developing countries, and within these groups. With a high degree of probability, it may be presumed that most of the developed countries are in a slightly better situation, reflecting the improvement of the labour market, the easing of the debt burden and the emerging positive effects of the fiscal consolidation in the recent years. Negative consequences have been accumulating in the developing countries, resulting from unresolved structural problems and tightening financial markets. We may also add to the above the issues caused by the sharp appreciation of the US

dollar, to which most of the developing countries adhere. All that will exert unfavorable effect in the short term both on economic activity, and most likely on the volumes of foreign trade flows.

The economic recovery in the Eurozone marked a progress in the second half of the year. There are factors, which not only would support that trend but would even accelerate it. The sharp drop in oil prices ranks first among these factors, and it will certainly lead to an increase in the households' disposable income, respectively to an increase in aggregate demand. Secondly, there are all grounds to expect that in 2015 and thereafter the effects of the depreciated euro will be felt, which will most probably lead to increased external demand. The changes in the ECB's monetary policy and the launch of a large-scale quantitative easing programme are also expected to contribute not only to avoiding the danger of falling into a deflation spiral, but also to the recovery of economic activity. This would be a natural result of the influence of the non-standard measures on interest rates, foreign exchange rate, and share prices. In more general terms, the expectations and hopes of ECB are that the non-standard measures will also open new monetary policy transmission channels, which have not been in effect (or have been too weak) when using conventional monetary policy instruments.

## **II. ANALYSIS OF THE ECONOMIC DYNAMICS AND POLICIES**

### **1. Real Sector**

In 2014 the Bulgarian economy registered a real growth of 1.7% on an annual basis and it is expected to accelerate gradually in medium-term plan. In the past year the Bulgarian economy experienced a relatively balanced development as growth was driven by both domestic and external demand. Domestic demand growth was determined to the highest extent by private consumption, which also contributed the most to the increase in GDP (1.7 percentage points). Public consumption and investments also had positive contributions. With respect to external demand, exports was responsible for around 1.5 percentage points increase in economic growth.

By domestic demand components, investment and public consumption also had 0.6 percentage points each contribution to economic growth. Gross fixed capital formation increased partly due to the gradual economic recovery in the international and national economies and partly due to declining profitability in the banking system. The growth of public consumption was on the account of increased government individual consumption. With regard to the external sector, exports grew by 2.2%, but imports increased by 3.8%, resulting in a negative contribution of net exports to GDP growth by 1.1 percentage points

All economic sectors had positive contributions to growth in 2014, where the highest values were recorded in industry (0.4 percentage points), agriculture (0.2 percentage points) and trade, transport and accommodation (0.2 percentage points).

Last year was characterized by high economic and political uncertainty, mainly related to the banking system in the country. It could be argued, however, that the increased perception of insecurity of bank investments of the citizens had, albeit short-term, but positive impact on the consumption of durable goods, thereby contributing to economic growth.

The increased public consumption also had a short-term positive effect on economic growth. In medium-term plan, however, fiscal consolidation is expected to result in a negative contribution of government consumption to GDP. Only the announced increases in the minimum wage should have a weak positive contribution to the levels of incomes in the country, thus stimulating consumption.

During the past year, however, public capital expenditures increased significantly – from 5.1% in 2013 to 5.8% of GDP in 2014. They are, on the one hand, related to the acceleration of the absorption of EU structural and investment funds and the need to provide national public co-financing. On the other hand, however, at the beginning of 2015 the government adopted a National Programme for Energy Efficiency of Residential Buildings in the amount of 1 billion BGN. This programme is scheduled to run on the entire territory of Bulgaria, where eligible beneficiaries are all multi-family residential buildings, industrially built, with at least 36 separate apartments with residential use. This programme should in the short term have a positive effect on

domestic demand through investment, stimulating construction and industry. In the longer term, it should contribute to sustainable growth in Bulgaria.

In the medium term, GDP growth is expected to accelerate gradually, driven mainly by domestic demand. The rate of growth of consumption is expected to pick up moderately and investments, given their highly volatile nature, should register higher growth rates in the light of the economic recovery in the country and in the EU. The pace of export growth is also expected to gradually accelerate, but strong domestic demand will determine the deepening of the negative contribution of net exports to economic growth in Bulgaria.

## **2. Foreign Trade**

The period 2008-2014 shows the contradictory trends of Bulgarian economy as well as the economies of its main trade partners, including those from EU. For the foreign trade of Bulgaria 2008 is a peak year, followed by the crisis years 2009 and 2010 and thereafter the recovery period for the exports, reaching in the last two years (2013 and 2014) the level of 2008. This positive development of exports has been accompanied by a strong decrease of investments, considerable restriction of consumption and production in Bulgaria and continuing stagnation in EU. These trends are clearly seen in the dynamics of the foreign trade turnover in Bulgaria.

In comparison to 2008, in 2009 the trade conditions have deteriorated significantly – the price index for exports is 85.6% and of imports – 91.3%, and there is a respective strong decrease of the volume of exports (more than 12%<sup>2</sup>), and the purchasing power (59%<sup>3</sup>).

Considerable increase of the exports and significant improvement of the trade conditions have started in 2010 and continued in 2011. We could accept that in 2011 the exports value in EUR approaches the purchasing power in 2008. In 2012 there is a drop of the exports value, compared to the previous year and to 2008, as a result of the market situation in EU due to the recession in the Eurozone, the restricted demand of Bulgarian export from other leading trade partners of the country and the general effect of restricted consumption in EU.

In 2013 there is a favourable exports development on Bulgaria. It increases by more than 10% in comparison with the previous year and its purchasing power is approximately the same as in 2008.

It could be accepted that in the period 2010-2013 (with a small fluctuation in 2012) the Bulgarian sector economy has succeeded to reach the level of the pre-crisis 2008.

In the period 2009-2013 there are no essential changes in the relative shares of the geographical structure of the foreign trade of Bulgaria, compared to 2008. Leading trade partners are the countries of EU, CIS, including Russia and Ukraine, and Balkan countries, including Turkey, Serbia and FYR Macedonia. In the last years there is a considerable increase of exports and of the positive trade balance with Arab countries and USA. The positive trend of the trade with China, Republic of Korea, Japan and other third countries remains.

In the peak years 2011 and 2013 the Bulgarian exports to EU has not yet recovered its 2008 level (in volume terms) due to the continuing consumption restriction of EU countries economies. At the same time, Bulgarian exporters, trying to adapt to the

---

<sup>2</sup> Data from the National Statistic Institute.

<sup>3</sup> The purchasing power is calculated on the basis of data from the International Monetary Fund for the devaluation of USD in the leading world economies.

conditions of global crisis and to difficulties with the realization on EU markets, compensate to some degree on third countries' markets.

In 2014, due to the worldwide deflation, and particularly in the Eurozone, there is a small decrease of the exports value of Bulgaria (by 0.7%), but the volume growth is slightly over the value for 2013.<sup>4</sup> Unlike in the previous year, when the exports to both EU and third countries has increased, in 2014 the total exports to EU has increased, though a little, but the export to third countries has decreased significantly. This decrease is based on the decrease of the export to EFTA (18.3%), CIS (21%), including Russian Federation (9.4%) and Ukraine (55.5%), China (18.1%), Republic of Korea (40.1%), etc. The reasons for the exports diminution are different, but some of them could be mentioned in particular. The drop of exports to Russia and Ukraine is mainly due to the international political crisis between the two countries. The decrease of export to China is related to the observed decrease of demand in this country. The continuing in 2014 trend to restoration and increase of exports to the EU countries and Balkan region and to traditional partners from Arab countries has also importance for the decreasing export to third countries. Concerning the negative values of the export increase, the significant contribution of the deflation, in a global aspect, of some main commodities groups like energy resources and raw materials, food and drinks, is also important. These groups of products have big respective share in the export and import of Bulgaria.

Regarding the import of Bulgaria, in the period 2009-2013 there are trends related to the restricted internal consumption and the fluctuations of export, caused by imported products. Thus, according to data of the National Statistic Institute, in 2009 compared with 2008 the imports have decreased to 76.8%, and by purchasing power – to 50.6%. Until 2013 the imports, as a volume and purchasing power of its value in USD, remains under the 2008 level. The increase of imports is due mainly to the exports growth of goods, dependent on imports, and in a small degree to the fluctuant and insignificant increase of the domestic consumption in the post-crisis years. As a result, the negative trade balance of 14 608.6 million USD in 2008 has decreased to 4813.1 million USD in 2013.

In 2014 there is an increase of the imports value (1.4%), but as a physical volume the increase is considerably higher. The negative trade balance has increased, compared to 2013 to 5458 million USD. It could be accepted that in 2014 the increase of the imports includes more considerably the factor growth of internal consumption. In 2014 the physical volume of imports remains under the level of the pre-crisis 2008.

Despite the significant imports diminution of exports and imports with Russia, the import from this country remains the highest, compared with the other countries – trade partners of Bulgaria (15.2% of all imports), which reminds that Bulgarian economy is strongly dependent on the imports of energy resources and raw materials from Russia.

---

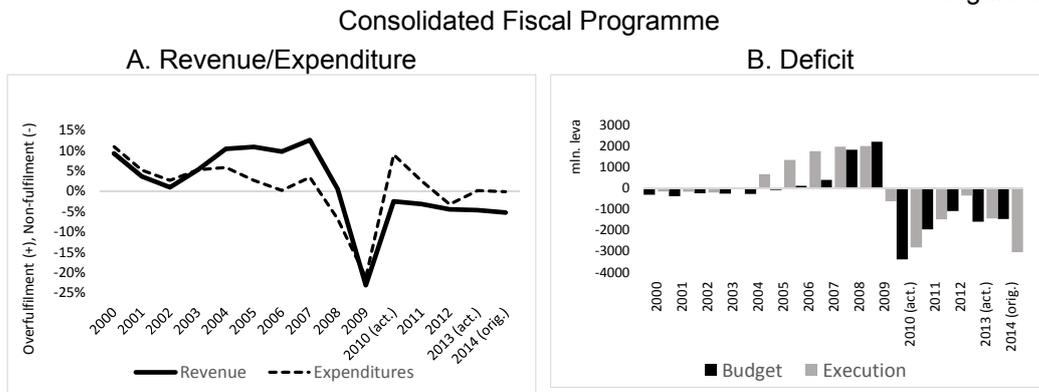
<sup>4</sup> Data of National Statistic Institute for 2014 are preliminary.

### 3. Fiscal Policy and Government Debt

#### 3.1. Budget Planning and Fiscal Challenges

Before proceeding to the analysis and the trends of the budget revenues and expenditures, it is worthwhile to say a few words about budget planning technology. It is an indisputable fact that capacities of the budget to influence macroeconomic development are enormous. The effects come both along the lines of planning (to the extent that the budget transmits signals to the private sector), and in the process of performance, where it becomes clear to what extent the intentions of the government have been serious and honest and to what extent they serve political interests that are currently in power. From this perspective, the comparison between the planned budget flows and their actual performance is very informative.

Figure 6



Source: Ministry of Finance.

Figure 6 clearly shows that over the last 15 years the Ministry of Finance has been failing in general to manage adequately that activity. Moreover, stable unfavourable tendencies can be clearly discerned. In the conditions of economic boom (2003-2008), revenues were underrated, which created an opportunity to expend, by various mechanisms, public funds without the sanction of the National Assembly (though it is not allowed by law). In periods of crisis (since 2009 till now), revenues have been overrated, which provides an opportunity for planning respective amounts of expenditures, which would have not been planned otherwise, since they go beyond the restrictions, imposed by compliance with the rules governing the budget deficit amount. In this regard, we should remind the people in power that a quality performance of the functions of the government budget requires and involves drawing up of strict rules for oversight of the proposed budget structures, as well as limiting the government's freedom to transfer funds between various budget items without the explicit sanction of the Parliament. The existence of such freedom instils a feeling of lack of control in the government elites, whereby a formalistic attitude is allowed in determining the immediate social and economic problems and the prevailing economic situation.

Obviously, in the medium term the fiscal policy is facing serious challenges. This requires making responsible political decisions, most of which might be unpopular. It should be a priority of the present and each future government to avoid excessive deficit spending and to prevent the economy from entering into a debt spiral, the exit from which is difficult and at a high social cost. Major challenges may be summed up as follows:

- Concerning revenue side:
  - low degree of redistribution of GDP by the state;
  - keeping unfavourable ratio between direct and indirect taxes;
  - refusal to introduce (or at least to discuss) progressive taxation;
  - keeping flat and low tax rates for leading tax revenues;
  - difficult collection of revenues.
- Concerning expenditure side:
  - public expenses feature a steady upward trend with no clear relation to economic and/or social efficiency;
  - mismatch between annual changes in expenditure and revenue;
  - expenditure side of the budget (particularly in relation to municipal budgets) continues to be held hostage by political interests that are currently in power.

### *3.2. Analysis of Short-Term Trends*

The global financial crisis affected the Bulgarian economy with a certain delay and it is already clear that it will pass away with a still greater delay. 2014 was the sixth year in a row featuring a budget deficit and the second successive year, which ended with an updated budget. Taken alone, these facts are alarming for an economy, functioning in the conditions of a currency board arrangement, but it is even more alarming that deficits have been budgeted in the medium-term fiscal framework also for the next three years. On its turn, this puts to the fore the somewhat forgotten question of the need and tolerability of public debt. It is only logical to add to the accumulated deficits the so called “hidden” deficits, which have already assumed alarming proportions.<sup>5</sup> What makes the picture less gloomy is the fact that public debt in Bulgaria is still at a

---

<sup>5</sup> What falls here are the liabilities of the National Electricity Company (about 3 billion BGN), which in the final run are likely to be nationalized in one form or another; the costs for paying out the deposits to the depositors in Corporate Commercial Bank (about 1.3 billion BGN); the liabilities of hospitals and of the Bulgarian State Railways are a chronic problem, which also cannot be resolved without the intervention of the state.

low level, particularly against the backdrop of the prevailing part of EU member states. This is an indisputable fact but it will be wrong to adopt a policy of “gradual debt increase”, hoping it would not be detrimental to the economy. Such a policy is justified only if it provides for serious structural reforms, and such are neither coming up, nor proposed.

The past year may be divided arbitrarily into two periods, which almost coincided with the calendar ones. A more accurate division is related to the moment when it became clear that the government would not be able to complete its term of office and holding of early election became necessary. In the first period, there were timid attempts to change the philosophy of the fiscal policy through matching budget targets and parameters with the economic development. More specifically, a proposal was made for discontinuation of the fiscal consolidation, and the support for the economy and acceleration of economic growth were proclaimed a top priority. To the extent the fiscal policy in the previous several years was restrictive and in practice procyclic<sup>6</sup>, the need of change was economically justified. The government, however, had neither the political will, nor the necessary support in the Parliament for conducting significant structural reforms, and the measures were rather populist and limited mainly to the social sphere.<sup>7</sup> What can be reported as a relative success are the measures taken for a strict compliance with the deadlines for refunding of the due tax credit under the VAT Act, aiming at supporting the business and ensuring fresh resources for companies’ operating and investment needs. At the same time, however, a number of structural problems remained unresolved, which led to exacerbating of the existing imbalances in key systems of the economy.

A caretaker government with no clear strategy and vision for reforms operated during most of the second period. Budget performance was rather mechanical, and another problem – a serious one with potential long-term consequences at that – was added to the existing ones. The trust in the banking system was seriously shattered and an urgent support from the budget was needed to prevent a systemic banking crisis. The actions of both the government and the central bank actually revealed how inadequate and uncoordinated the institutions were in an extreme situation.

When the new government assumed office, urgent steps were pursued for updating budget 2014, made necessary by both poor revenue performance and the need to incur new expenditures for stabilizing the banking system. Thus, the budgeted deficit was increased by 1.5 million BGN reaching almost 3 million BGN, which in absolute terms exceeded the record deficit of 2010; the latter, however, was spent in the heat of the financial crisis and in the conditions of a sharp decline of real GDP. The 2014

---

<sup>6</sup> The period after the global financial crisis affected Bulgaria was characterized by expenditure restrictions, arbitrary and unjustified cutting of expenses in some systems and unjustified increase in others. Curbing the cash deficit was achieved by holding back by the state of payments to the private sector and accumulation of arrears, which led to a serious increase of intercompany indebtedness, taking away of liquidity from the private sector and difficulties in pursuing investment activity. All this affected economic activity, which remained lastingly subdued. Furthermore, as of the end of 2010 it was decided that the fiscal reserve should be transferred into the common budget accounts, which allowed for its use for current fiscal needs.

<sup>7</sup> Pensions were indexed and Christmas allowances were paid to pensioners with the lowest pensions. Benefits were updated, including child care allowances and monthly allowance for permanently disabled child. Additional resources were also provided for the health care system.

deficit was spent in the conditions of a moderate economic growth of about 1.7%, which makes it difficult to compare to the fiscal results of previous years. The deficit could have been even higher, if the scheduled capital outlays were not cut.

The determination for conducting deep structural reforms, declared by the new government, obviously failed to find its expression in the current year budget. There are no visible changes either in the budget programmes, or in the revenue and expenditure structure. The planned fiscal consolidation (to the extent it will be implemented at all) would hardly have a serious macroeconomic effect. At first glance the revenue side of the budget seems to have been planned conservatively (3.2% nominal growth), but even that projection seems rather optimistic at the backdrop of the deflation processes in the economy and a GDP nominal growth for 2015 of only 0.2%. If we add to that the risks, entailed in the expenditure side of the budget, it may turn out that there will be no consolidation at all. The general impression is that efforts are once again focused on resolving “urgent problems”, and the reforms are to wait for better years. The state budget for 2015, though moderately conservative in revenue terms, is not sufficiently ambitious as regards to the budget structure and expenditure policies. The same applies also to the medium-term budget forecast, which, besides envisaging continuation of deficit spending of public funds, poses a threat to go beyond the framework of the fiscal rules laid down in the Public Finance Act. From the perspective of the hard-won, fragile consensus for forming the government, this approach is probably politically justified, but yet another delay of the economic reforms would hardly be well accepted by our economic partners.

### *3.3. Sovereign Debt*

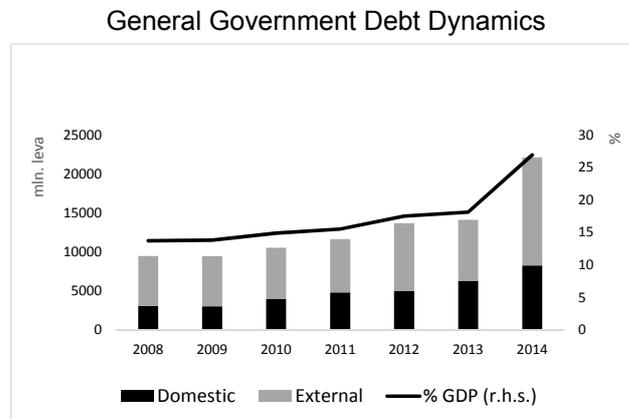
Only a few years ago the issue of public debt seemed lastingly excluded from the economic and political debate. In the course of a whole decade, the debt decreased both in relative terms (as a ratio to GDP) and in absolute terms. That was owing to several consecutive years of achieved fiscal surpluses and the purposeful policy of external debt buyback.

The problems started about five years ago, when the budget again sported a deficit, but in the recent two years the situation has sharply deteriorated. At the beginning of 2013 the sovereign debt amounted to about 15% of GDP, at the yearend it exceeded 18%, and at the end of 2014 it was already more than 26% of GDP. Our projections indicate that as of the end of 2017 sovereign debt will exceed 31% of GDP. In comparison to other countries, both in the region and in the EU as a whole, the level of external debt is rather low, but its growth rates are disturbingly high.

Actually, not only high debt growth rates are worrying but also the ambiguity regarding the ways in which the newly borrowed funds are to be spent. To the extent that there are no large infrastructure projects announced, that would be funded by those loans, it is obvious they will be used to fill current gaps in the budget. The need of refinancing debts, already issued in the past, is indicated as one of the most serious reasons (e.g. for 3/4 of the medium-term growth of the debt burden). This poses the question how long the rollover refinancing of old debts will continue. The logical economic approach

is that debt should be issued if it is expected to stimulate economic dynamics, so that the economy would be in a position to pay the debt as a result of the higher economic performance achieved. If the new debt fails to achieve higher economic growth and ensure outpacing economic dynamics, then the new indebtedness would only lead to financial enslavement. What is more, the haste, with which the assumption of a new debt of about 16 billion BGN for the coming three years was voted, left the unpleasant impression that the likely reason was that the financial system faces serious difficulties and the ruling circles took precautionary measures. Such activities, though justified in principle, should be carefully communicated due to the danger of counter effects. For economically and politically unstable countries, such as Bulgaria, even some relatively low levels of debt can turn to a problem should the markets suddenly reconsider their confidence in the country.

Figure 7

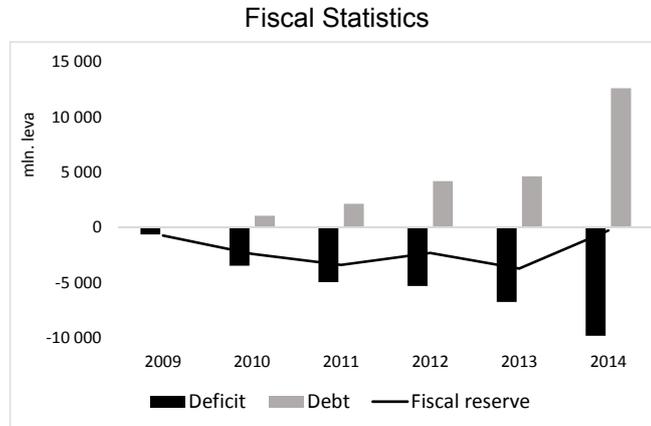


Source: Ministry of Finance.

Figure 7 compares the dynamics (with accumulation since 2009) of budget deficit, sovereign debt and fiscal reserve. It is clear that in the first years after the onset of the financial crisis and its subsequent impact on the Bulgarian economy the accumulated deficits were only partially covered by issuing new debt. In the period 2009-2011, the accumulated deficit was nearly 5 billion BGN, and for the same period sovereign debt increased by only 2.1 billion BGN. This was obviously at the expense of the fiscal reserve, which decreased by 3.3 billion BGN, almost reaching the “basic practicable minimum”.

Such sorts of “fiscal juggling” should be avoided, as they benefit business in no way whatsoever, but are rather an attempt to wash away political responsibility. Exhausting the possibilities of using the fiscal reserve to finance current deficits has quickly proven the untenability of such an approach to state finances. After this period, the opposite tendency was manifested – the deficit, accumulated in 2012-2014, was again around 5 billion BGN, but this time it was accompanied by an increase in the sovereign debt to more than 10 billion BGN and a fiscal reserve growth of 3.1 billion BGN. From this perspective, the fact that the planned deficits of almost 6.4 billion BGN in the coming three years are to be entirely financed by a debt issue without using funds from the fiscal reserve can be assessed as positive.

Figure 8



Source: Ministry of Finance.

### 3.4. Conclusions and Recommendations: What Can and Cannot Be Achieved through the Fiscal Policy

The impact of the global economic crisis on the Bulgarian economy is an indisputable fact. It affected, in varying degrees, all sectors of the economy and for more than six years Bulgaria has been in a situation of stagnation. As our financial sector is still underdeveloped and only partially integrated in the global markets, the crisis entered through the real sector and subsequently impacted the financial one – opposite to what happened in most of our trade partners. Therefore, even now the “weak external demand” is pointed out as a reason for the economic stagnation. In fact, the pre-crisis volumes of exports and imports have been long since recovered. What has not been recovered (and would hardly be recovered even within a medium-term perspective) are the volumes of foreign investments. No matter how ineffective they were in terms of structure (prevailing in the real estate and the financial sectors), these investments provided for a relatively high economic growth and good level of employment. The economy turned out to be strongly dependent on foreign investments and incapable of generating by itself high and sustainable growth. This, on its turn, poses acutely the question “And now, what are we to do?”. It is more than clear that what is most important for the Bulgarian economy is to achieve a long-term and lasting economic growth in the range of 5% per annum. Only this would ensure an abatement of social tensions that have been accumulating for years. The question is what should be the role of fiscal policy.

The recommendable policies in the medium-term and long-term horizon are to preserve fiscal stability, while clearly stating that the growth-stimulating public expenditures should be investments in education (human capital improvement – knowledge, understanding, skills), health care (increase of labour productivity and life expectancy in good health) and economic infrastructure. From this perspective, an

important priority is the restructuring of public (current and investment) expenditures and radical changes along four main lines:

- education (with focus on school education);
- health care (development of primary out-patient medical care and optimization of the hospital network); breaking the monopoly of the National Health Insurance Fund (NHIS);
- pension reform corresponding to the demographic structure, taking into account the strengthening of the role of the second and third pillars and reducing government budget transfers;
- economic infrastructure – mainly water utilities (water supply, sewerage, water treatment and hydromelioration) and transport (national road network, railway infrastructure, ports and airports).

Another important line of reforms to ensure sustainable development of the national economy will require a more equitable and rational tax system. Bold reforms are needed in the tax regulatory framework, which in the medium term will result in:

- gradual increase of the weight of the income tax (including by reconsidering the flat-rate proportional tax on personal incomes, “dynamic development” of corporate income taxation and other measures);
- reduction of the burden of indirect taxes on consumption (alternatives are possible also by introducing a differentiated VAT rate<sup>8</sup>, increasing the threshold for mandatory registration under the Vat Act and a balanced excise tax policy);
- increase of the importance of property taxation (by expanding the tax base, progressive taxation and reducing tax reliefs).

These important structurally determining reforms should be implemented following a careful “impact assessment“, as it is impossible to expect that they could have both a positive fiscal effect and a long-term macroeconomic effect. In some cases, we may have to choose between a temporary higher deficit versus long-term effects. In this regard, it would be very useful if the assessment of the expected actual consequences (costs, benefits and redistribution effects) from the proposed/existing regulatory acts (laws, decrees, ordinances, etc.) is appropriately regulated and institutionalized. This would guarantee:

- better and more responsible and transparent political decisions;

---

<sup>8</sup> This matter does deserve an in-depth and pragmatic consideration, rather than a doctrinaire approach. Quite recently it became clear that starting June 1<sup>st</sup>, 2015 Romania will reduce drastically its VAT rate on foodstuffs from 24 to 9%.

- less and more clearly cut regulatory acts of higher quality;
- commendable (and nationally responsible) participation in the legislative process on EU level.

More specifically (and relatively more quickly) steps can be made, which would have a positive fiscal effect, while simultaneously having no negative effect on economic activity. Some of the more important steps are:

- improving the budget projection and planning technology;
- active management of public property and analysis of the activities of the state's participation in economic activity with a view to minimizing it;
- seeking opportunities for cutting current costs (of salaries and current operating costs) in the public sector. This applies practically to all administrative units, but with a greater weight to the national security, defence and law-enforcement agencies, where the costs are unjustifiably high;
- accelerating the process of fiscal decentralization.

#### **4. Monetary sector**

In the framework of the currency board arrangement in Bulgaria, the set of instruments for impact on the economy through the monetary policy is quite limited. Thus the influence of the monetary area on the economy is much less a result of conducted economic policies than of the automatism, specific of the currency board. The global financial crisis, which affected Bulgaria in 2009, and the bank panic in the summer of 2014 (“the shortest banking crisis in history”<sup>9</sup>, which led to a mass withdrawal of deposits from the commercial banks and a mass exchange of national currency) challenged the monetary sector. Overcoming these shocks, it remained stable, guaranteeing a solid action framework to the market powers – the money demand and supply in the economy.

In the period 2009-2014, money supply increased by 20.3 billion BGN or 43% in nominal terms, following a smooth trend. Its structure remained considerably constant: more than half of it is the near money (M3), followed by overnight deposits and money in circulation, while the tradeable ones remained neglectible in volume. In the period till 2017 the growth tendency is expected to continue because of the policy of the European Central Bank (ECB) for quantitative easing and the government policy for accelerated foreign debt. Concerning the structure of the money supply, most probably the replacement of long-term with overnight deposits and money in circulation will continue, based on expected decrease of the interest levels and the difficulties to crediting, rooted in the insufficient volume of perspective business projects by the real economy.

The assets analysis of the balance of Issue Department of the Bulgarian National Bank (BNB) in the period 2009-2014 shows that the international foreign currency reserves have a stable tendency of increase. Concerning liabilities, monetary base increases faster than foreign currency reserves. This means that there is a tendency of shrinking the coverage of the monetary base with international foreign currency reserves. The influence of the monetary base on money supply in the economy is determined by the money multiplier. In the analysed period it varied between 3.6 and 4, with drops at the end of the years due to a growth of money in circulation in those periods. However, the drop at the end of 2014 was bigger, since it was caused by the increased volume of money in circulation because of the situation of the banking system, as well as the increase of excess reserves of the commercial banks in BNB. The increase of excess reserves is a natural result of the banks’ situation. On the one hand, they attract more and more deposits, and on the other, they suffer difficulties to invest them – crediting shrinks, limits of investing in financial instruments do not allow their significant expansion, and interests on the money market are negative.

Thus, commercial banks consider the zero interests on the reserves in BNB profitable. In short-term and middle-term perspective this process will intensify because of the policy of ECB, which will suppress the interest level, and the real economy does not promise a significant growth till 2017 for a solid increase of domestic credit. The

---

<sup>9</sup> International New York Times. July 8, 2014.

banking sector will probably remain in the liquidity trap and the excess reserves will continue to increase.

With the increase of the money supply (by 43%), in the period 2009-2014 the gross domestic product (GDP) increased by 16.4% in nominal. While in 2009 the money supply was 63.8% of GDP, in 2014 it is already 82.8%. In other words, the economy had a solid monetarization in the period but it did not lead to a more significant growth. There is also no correlation between the dynamics of the money supply and the one of GDP. On the other hand, there is no correlation also between money supply and the dynamics of the price level, measured by the annual increase of the GDP deflator. This means that the relation between the processes in the monetary sector and the ones in the real economy will be quite unclear in the studied retrospective period. Nevertheless, the increased money supply is expected to turn the deflation trend yet in 2015, and in the next 2 years till 2017 there will be a low to moderate inflation.

Money demand depends on many factors – interest rate, income rate, inflation expectations, investment projects, etc. The domestic credit can be used as an indicator of the dynamics of money demand. In the examined period it was growing by average rate of 4.7% until 2013, while in 2014 it shrank by 8.8% (5 billion BGN). As a whole, the domestic credit was managed by the non-financial enterprises and households, which look for attracted capital depending on the interest level, specifically in a period of a slow economic growth, accompanied by a slight increase of the compensations of employed people and contradictory dynamics of the gross operating surplus of the economic enterprises. Even with the presence of a low credit activity in the period and its more significant shrinking since the end of 2014 till now, the real average interest on credits remained almost unchanged. On the other end, the real interest on deposits decreased quite significantly, opening the margin of the banks. It is expected that the interests on the credits will follow the drop of the interests on deposits, which in accordance with the general trend in the European Union are also expected to continue to decrease. This will lead not only to a growth of the domestic credit, an indicator of money demand, but also to holding the money in circulation at higher levels.

Although the fiscal balance has a decisive importance for the stability of the currency board and the monetary sector as a whole, since 2009 till now the consolidated fiscal programme registers deficits, which are financed mainly by an increasing foreign public debt. In the analysed period the inflow of a significant foreign financial resource has stabilised the monetary sector, but this trend in a long term is dangerous. Engaging a bigger and bigger foreign debt cannot replace the necessary structural reforms. It leads, first, to a decrease of the state expenditures and increase of state revenues. Second, structural reforms should improve the business environment in Bulgaria, so it can attract more significant foreign investments. Third, there should be a policy of strengthening the banking supervision is needed, so that the possibilities of repeating the banking crisis in the summer of 2014, which threatened the stability of the monetary sector, will be reduced.

## **5. Banking sector – current state and expectations**

The performance of the Bulgarian banking sector in 2014 fully reflected the local environment, which remained unstable. The expectations for a leading role of the external sector recovery, which was expected to support investments in export activities (and hence the demand for loans), did not happen. Quite the opposite, the deflationary pressure in our main trading partner (EU) strengthened to an extent that caused the active intervention of the European Central Bank (ECB) in the form of quantitative easing.

The main thing that can be said for the local banking sector over the past year is that most of the trends developed to date remained. Lending is still slow-moving, local funding continued to become cheaper, savings grew further (albeit at a slower pace), and the resource provided by foreign parent banks to their local subsidiaries continued to be replaced by local deposits.

It should be noted that the estimate for 2014 is somewhat skewed, since as of November 2014 Corporate Commercial Bank is excluded as a reporting entity from the banking sector statistics due to its reclassification to the "other financial intermediaries". Thus in November the main indicators of the banking system have recorded a noticeable decrease (purely mechanical), which considerably distorts the result of our analyses.

Some tangible effect of the events surrounding Corporate Commercial Bank was the partial withdrawal of confidence among the local banks. They withdrew some funds from the money market and turned them into the central bank (so this category of assets rose by more than 1 billion BGN).

The mentioned events led to a couple of positive effects, namely an improvement of the bank insolvency legal framework and harmonization of local deposit insurance legislation. At the end of 2014 the commitments of Bulgarian Deposit Insurance Fund (BDIF) were specified and the insured part of deposits in Corporate Commercial Bank was paid to their customers. Unfortunately, this led to a full discharge of BDIF funds, as well as to some new debt issuance – in order to cover the deficient part.

It is noteworthy that these events did not significantly change the depositors' attitude toward the system. So the repaid deposits rapidly went back into the local banks. Thus, the system reported zero annual growth of funds, and unsecured residue (which is equal to the real deposit growth this year) still remains outside the central bank reports.

In general, the dynamics of banks' assets and liabilities amid falling interest speaks negative for the local economy as it is indicative of the poor opportunities for the free money realization. The one reason is the pretty low profitability in existing alternatives and on the other side it is the high degree of risk arising from the economic uncertainty in the country.

Next, in 2015 there are certain grounds for some positive expectations, as it may be supposed that the monetary stimulus in the EU will begin to show some effects for the real economy in terms of investment activity improvement, safe propensity reduction and rise of the consumer spending. Briefly our expectations can be summarized in the following points:

- The process of restructuring of the borrowed funds as a result of external funding withdrawal will remain without significant consequences for banks with foreign ownership, since the trend of price convergence (for the local and external funding) will continue in 2015, fueled by the continuing interest rates reduction. The deposit rates adjustment will continue this year, but this will not lead to a corresponding decline in loans price, due to sustain of relatively high risk premium.
- Amid the limited credit activity, the funding price itself will play insignificant role in the formation of profits next year. Far more important contribution will have the improvement of loan-to-deposit ratio and this in turn supports our expectations for some further aggressive interest rate cuts with a view of improving the balance between deposits and loan portfolio.
- The low profitability will remain a major problem for most of the local banks amid the ongoing standstill of real economy and high level of non-performing loans. Although the sector profits rose already for the second consecutive year (by more than 1/4), it should be considered that most of the profit is reported by several large banks. Many of the others continue to report poor results and this circumstance will strengthen the pressure so that they will look for opportunities to merge in the structure of some more profitable institutions. We have seen some specific expressions of this trend in 2013 and 2014, so we expect to see them continue next year.
- The emerging "credit tourism" is going to intensify as a result of continuing deficit of creditworthy customers and the abolition of early repayment fees. This in turn will lead to some decline of the interest revenue for certain banks and to some more favorable conditions for the end user. Yet the same process will lead to an increase of the concentration in this sector, which in turn will have some hard to predict long-term consequences.
- Most probably the maturity mismatch will increase, as far as the aim of local banks (especially the less profitable ones) to reduce their cost of funds will lead to an increase of the current accounts share. Hence, the maturity deformation of their liabilities is going to escalate. At the same time, the borrowers' preferences will turn stronger toward longer maturities (more than 5Y) and this will deepen the imbalance between assets and liabilities. As a stabilizing factor in this process one could point the escalating pressure for migration toward the products with a fixed maturity as a result of continuing interest rates reduction.

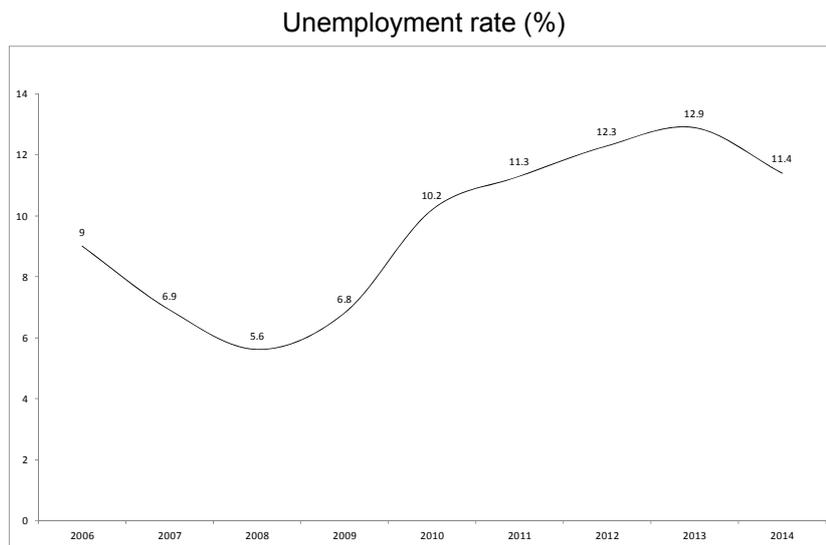
Bulgaria had an important advantage until the beginning of 2014, namely a stable banking system. Unfortunately, the past year events generally led to a loss of this advantage, since the main guarantee of our banks has lost all the accumulated funds. The actions of the local regulator, on the other side, showed unequivocally that both the legal framework and the attitude toward the regulated institutions need some serious revision. The steps taken so far in this direction obviously do not work. Actions are chaotic and the delay is significant. It led to an increase of the risk of undermining the basic foundation of this system – the confidence. Several important steps are pending (many of which by virtue of mandatory prescriptions of the European Commission), for which we can strongly hope to restore the system stability and recover not only the state of the financial sector but also the economic growth.

## 6. Labour Market

Last year was the first one since 2008 when one could see clear indications of improvement of the conditions of the labour market in the country. In 2014, for the first time since 2008, the number of employed increased – albeit to a minimal degree – and the level of unemployment fell significantly compared to the previous year. The activity rate continued its growth and in 2014 exceeded its 2008 value, when the indicator was highest since Labour Force Survey (LFS) has been carried out.

In 2014, the number of employees between 15 and 64 years of age was 2 927 400 people, which is an increase of 38 000 people (1.3%) from the previous year. There is an increase of employment in agriculture, industry and many of the branches in services such as hotels and restaurants, real estate activities, professional, scientific and technical activities, etc. In services important to employment, such as trade and transport, the number of employed continues its decrease of 1.3 and 1.8%, respectively, on an annual basis.

Figure 9



The decline of the unemployment level throughout the year has been significant. The average number of unemployed people in 2014 was 384 500 people, which is a decrease by 48 700 people from 2013. Around 2/3 of this decrease has been accounted to the higher employment throughout the year, whereas the other 1/3 is due to people who have left the labour force. The level of unemployment has dropped from 13% in 2013 to 11.5% in 2014. Nonetheless, Bulgaria still has a higher level of unemployment than the EU average (10.2% in 2014).

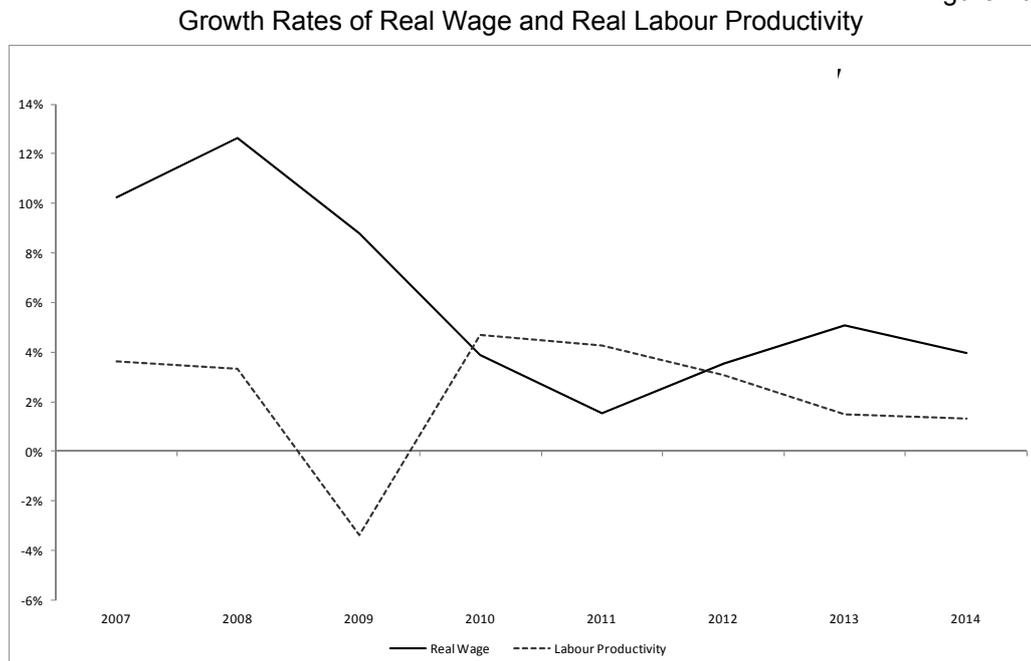
An increasing part of the unemployed are people from vulnerable groups with a lesser opportunity for realisation and are less active on labour market. During the last two years there was an increase of the expenditures for active labour market measures aimed at inclusion of these vulnerable groups. According to Employment Agency data,

the transfers committed to active measures and programmes in 2012 were 246 million BGN, in 2013 – 546 million BGN, and in 2014 they reached 654 million BGN. This increase is primarily attributed to Operational Programme “Human Resources Development”, which share among the total transfers to active measures made by the government has grown from 75.3% in 2012 to 87.5% in 2014. The funding of these measures from the national budget remains relatively constant and in 2014 it is 81.6 million BGN.

The activity rate of population in 2014 reached its highest value ever since LFS has been carried out. The activity rate (15-64) was 69% and the employment rate of the same age group was 61%, whereas the highest values before that (reached in 2008, the last year of high economic growth period in the country) were 67.8 and 64%, respectively. The activity rate increase is attributed both to the improvement of the state of the labour market and the decrease of the active population. The adverse demographic processes will be increasingly a factor that will limit the growth of the economy in the next years.

In 2014, the nominal wage growth noticeably decreased. During most of the months, its growth on annual base was between 2 and 3%, while in the period 2010-2014 it ranged between 5 and 6%. A key factor influencing the dynamic of the nominal wage in 2014 was the deflationary process in the country. In addition, the political instability in Bulgaria and the yet fragile economic recovery contributed as well to the slowing of the growth of the nominal wages. According to preliminary data from the National Statistical Institute, the average annual wage in 2014 was 9932 BGN.

Figure 10



2014 was another year when the tendency of the real wage growth outpaced the real growth of the labour productivity. This tendency was also visible in 2012 and 2013. The relatively high real wage growth, however, was not a result of the accelerating growth of nominal labour costs, but rather of the deflation in the country. Although the real wage growth rate was higher than the real labour productivity rate in 2014, this was not a result of and is not an indicator for an easing of wage policy in the business sector. The growth of the wages remains constrained and in line with the condition of the economic and business environment.

In the next three years labour demand will continue to grow because of the expected economic growth in the range of 1.5-2.5%. We expect the annual average employment to increase by about 20 000 – 25 000 people and the employment rate to reach 49.6% of labour force (the age cohort 15 years and more) in 2017. The employment growth will drive the reduction of unemployment rate which is expected to come down below 10% in 2017.

In 2015 the nominal wage growth will remain relatively low (between 2.5 and 3%) because of the low inflation and still unsteady economic growth. Along with the acceleration of economic growth, in 2016-2017 the nominal wage will restore its annual growth rate from the 2010-2013 period and we expect the average monthly wage to be 950-960 BGN in 2017.

## **7. Decentralization Policy of the State Governance – Reasons, Results, Perspectives**

Decentralization policy is a policy for redistribution of services, resources and rights between the different levels of territorial governance for creating conditions for establishing a balance between them. Achieving such state is a premise for a successful functioning of the governance structures at central as well as local level.

The examples in other countries show that such policy has both advantages and disadvantages, the latter referring to the possibility of disturbing the microbalance, slowing down the economic growth, causing territorial inequalities, etc. However, the Bulgarian practice shows that the disadvantages are not results of the decentralization policy but of its wrong execution. The latter includes the transfer of improper services or sources of incomes, wrong design of the model of state transfers, the desire of the central power to keep the “right” to transfer deficits from central to local level, reporting good macroeconomic results on account of destabilizing the providing and financing services at local level.

As a result of the 2003-2013 decentralization reform “Bulgaria remains a strongly centralized country”<sup>10</sup>, the created model of public governance at local level is strongly deformed, there is no balance between responsibilities for providing services, necessary resources for their financing, and rights for managing the individual municipal budget.<sup>11</sup> The unbalances on municipal level lead to mistrust in the local power, lack of motivation for individual solving of the local problems, constantly “provoking” the macroeconomic stability.

That is why the decentralization policy should set clear quantitative goals, which correspond to the reached level of decentralization in EU member countries. They could be:

- share of municipal revenues in GDP – no less than 10%;
- share of municipal expenditures in total expenditures of the consolidated fiscal programme (CFP) – no less than 25%;
- share of municipal tax incomes in all tax incomes – no less than 14%;
- share of municipal investments in total investments in CFP – no less than 50%;
- share of own municipal revenues in all municipal revenues – no less than 55%;

---

<sup>10</sup> Second monitoring report on the state of the “local and regional democracy in Bulgaria”, p. 28.

<sup>11</sup> The Constitution of Bulgaria states that “the municipality has an individual budget” (Art. 141, p. 1). At the same time more than half of the incomes from state transfers and more than half of the expenditures are distributed by the Minister of Finances.

- share of expenditures with municipalities rights of all municipal expenditures – no less than 80%.

In order to achieve the set target values until 2020, it is necessary to:

1. turn part of the Incomes Taxes on Natural Persons Act into a local tax;
2. regulate by the permanent legislation that the total amount of the state transfers to municipalities cannot be less than 10% of all incomes in CFP. In this way the opportunity of the state to finance its own activities on the account of the municipal ones is avoided;
3. reconsider the ratio between delegated and local services – gradual increase of the local services on the account of the delegated ones. Increase of the rights of the municipalities to manage the delegated services;
4. create stable and foreseeable financial relations between the state and the municipalities – change of the mechanism of functioning of the balancing subsidy, regulating the total amount of the capital subsidy, creating a mechanism of supporting municipalities in a difficult financial state;
5. increase the area of application of the delegated budgets – kindergartens, social and cultural centers;
6. increase the mayors' rights to manage the municipal property of local significance and their financial responsibilities for providing local services.

These changes would ensure a gradual increase of the municipal resources, rights and services, which in 2017 would lead to reaching the pre-crisis 2008 levels of the main macro indicators, characterizing the decentralization, and in 2020 – their closing to the EU average levels.

**PART TWO**

**FOCUS: ECONOMIC DEVELOPMENT POLICIES IN  
OPERATIONAL PROGRAMMES AND  
COMMON AGRICULTURAL POLICY  
FOR THE PERIOD 2007-2013**



## **1. Estimate of the Contribution of EU Funds for Economic Growth by Production Factors**

This section contains an estimate of the impact of the structural funds and the Cohesion Fund on the long-term economic growth in Bulgaria. The contribution of the Rural Development Programme and the Operational Programme "Fisheries Sector Development" are not taken into account in the quantitative calculations, since the estimates are based on publicly available data from the Bulgarian Unified Management Information System (UMIS)<sup>36</sup>, and no projects implemented under the above two programmes are available in the public section of UMIS.

To assess the impact of European funds on the Bulgarian economy, data on the actual amounts paid under the seven operational programmes (OP) accumulated at the end of 2014 has been used. It includes the national co-financing, which amounts to 15% for all OP with the exception of the Operational programme "Transport" and Operational Programme "Environment", where it is about 19%.

The policy for smart, inclusive and sustainable growth in the EU is the most significant at European level, with around 80% of the EU budget allocated for its implementation in the last two programming periods (2007-2013 and 2014-2020). A major aspect of this policy is the convergence between EU regions in terms of economic development by channeling funds from richer to poorer regions to overcome differences in important production factors such as public infrastructure, human capital and innovation.

### *1.1. Specification of the Production Function and Methodical Issues*

Unlike standard large-scale macroeconomic models for evaluation impact assessment of the EU funds, in this part we focus only on the effects on the supply side, and for this purpose a production function is constructed, where production factors are more thoroughly specified.

The production function is a convenient tool for transformation of the investments expenditures, realized with European funds, into production factors. This approach is widely used in the EU, where two types of macroeconomic models are usually designed: 1) Macroeconometric models such as SIBILA for Bulgaria (Tsvetkov, Vassilev, Ganev, Simeonova-Ganeva and Chobanov, 2011), or HERMIN (Bradley et al., 2006); and 2) dynamic stochastic general equilibrium models like QUEST III (Varga and in't Veld, 2010) or GIMP (Allard et al., 2008).

---

<sup>36</sup> The Unified Management Information System (UMIS) of structural instruments of the European Union (EU) serves all administrative structures involved in the management, monitoring and control of the structural funds. The system has two modules – closed and public. The public module of UMIS (<http://umispublic.government.bg/>) ensures publicity and transparency of the absorption of the structural funds and the Cohesion Fund in Bulgaria and is used for the purposes of this estimation.

Our approach consists of specification of a production function, similar to the production functions in the above models. Then it is estimated with Bayesian methods.<sup>37</sup> Therefore, the following production factors are defined: public infrastructure capital, private physical capital, technological capital, labour, human capital and institutional quality. The choice of the production factors does not fully comply with any of the aforementioned production functions, and it was made in order to cover the types of interventions funded under the operational programmes in Bulgaria. Thus, under the assumption of Cobb-Douglas functional form with constant returns of scale, the model can be defined as:

$$Y_t = A_t L_t^{\alpha_1} H_t^{\alpha_2} K_t^{\alpha_3} G_t^{\alpha_4} I_t^{\alpha_5} S_t^{1-\alpha_1-\alpha_2-\alpha_3-\alpha_4-\alpha_5}$$

$Y_t$  designates the country's GDP, and the production factors include:

- *Labour  $L_t$* , which specifies the labour used in the production, measured by number of employed.
- *Human capital  $H_t$*  adjusts the efficiency of the labour employed through investments, aiming to enhance the productivity or the quality of labour. Human capital is calculated by an estimation of the "level of educational attainment" in the country, measured in number of years of education, similar to the above-mentioned macroeconomic model SIBILA. Education is formed from formal education (school, university) and professional training.
- *Private physical capital  $K_t$*  is measured by the private investment in the economy under the assumption of the depreciation rate of 5% per annum. Private investments, in turn, are estimated as the difference between total and public investment in the economy.
- *Public (infrastructure) capital  $G_t$*  is estimated as the sum of the capital expenditures in the consolidated state budget and the investments made under the European operational programmes.
- *Scientific research and innovation  $I_t$*  is calculated on the basis of the indicator for the total research and development (R&D) expenditures in Bulgaria, taken from the statistical survey of NSI. This study is carried out on an annual basis and is exhaustive for all enterprises and organizations engaged in R&D as a principal or secondary activity.

---

<sup>37</sup> The Bayesian approach was selected for this study, as these methods allow for specification of a priori distributions of the estimated parameters. This approach is relevant also because of the non-availability of long time series for the estimation.

- **Quality of institutions**<sup>38</sup> is measured by the government effectiveness indicator, which is published in the WB Worldwide governance indicators.<sup>38</sup> This aggregate indicator measures the progress of each of the 215 economies in terms of quality of public services, quality of public administration and degree of independence from political pressures, quality of the formulation and implementation of policies and public confidence in the government's commitment to these policies.

Table 1  
Correspondence between the Operational Programmes for the Period 2007-2013 and the Estimated Production Factors

Labour	<ul style="list-style-type: none"> <li>• Operational Programme "Human Resources Development"</li> <li>PA 1 "Enhancement of economic activity and development in the inclusive labour market"</li> <li>PA 2 "Raising the productivity and adaptability of employees"</li> <li>PA 5 "Social inclusion and promotion of social economy"</li> </ul>
Human capital	<ul style="list-style-type: none"> <li>• Operational Programme "Human Resources Development"</li> <li>PA 3 "Improving the quality of education and training in accordance with the needs of the labour market for building a knowledge-based economy"</li> <li>PA 4 "Improving access to education and training"</li> </ul>
Private capital	<ul style="list-style-type: none"> <li>• Operational Programme "Regional Development"</li> <li>Procedure 1.2.01 "Support for energy efficiency in multi-family buildings"</li> <li>• Operational Programme "Competitiveness"</li> <li>PA 2 "Increasing efficiency of enterprises and promoting supportive business environment"</li> <li>PA 3 "Financial instruments for developing enterprises"</li> </ul>
Public capital	<ul style="list-style-type: none"> <li>• Operational Programme "Transport" (except PA 5 "Technical Assistance")</li> <li>• Operational Programme "Environment" (except PA 4 "Technical Assistance")</li> <li>• Operational Programme "Regional Development" (except for the following sub-priorities and procedures 1.1-10, 1.2-01, 1.4-07, 2.2, 3.2, 3.3, 4.2)</li> <li>• Operational Programme "Competitiveness" – Sub-priority 1.2 "Improvement of the pro-innovative infrastructure"</li> </ul>
Research and innovation	<ul style="list-style-type: none"> <li>• Operational Programme "Competitiveness" (except sub-priorities 1.2 and 2.3 and PA 5 "Technical Assistance")</li> <li>• Operational Programme "Regional Development"</li> <li>Sub-priority 3.2 "Development of regional tourist product and marketing of destinations"</li> <li>Sub-priority 3.3 "National tourism marketing".</li> <li>• Operational Programme "Regional Development"</li> <li>Procedure 1.1.10 "Support for the creation and promotion of innovative cultural events"</li> <li>Sub-priority 2.2 "Information and communication network"</li> </ul>
Quality of institutions	<ul style="list-style-type: none"> <li>• Operational Programme "Administrative Capacity"</li> <li>• Operational Programme "Technical Assistance"</li> <li>• Operational Programme "Regional Development"</li> <li>Sub-priority 4.2 "Interregional cooperation"</li> <li>Procedure 1.4-07 "Support for integrated urban rehabilitation and development"</li> <li>• Operational Programme "Human Resources Development"</li> <li>PA 6 "Increasing the efficiency of the institutions at the labour market, social and health services"</li> <li>PA 7 "Transnational and Interregional Cooperation"</li> <li>• Priority axes concerning technical assistance under OPT, OPE, OPRD, OPC, OPHRD</li> </ul>

In order to estimate the contribution of the resources spent under each operational programme for the accumulation of certain production factors, individual project data on the financial implementation of all projects funded by the structural funds and the Cohesion Fund for the period from 2007 to the end of 2014 was downloaded from UMIS

<sup>38</sup> More information on the indicators and the database available at: <http://info.worldbank.org/governance/wgi/index.aspx#home>.

public module. For analytical purposes, however, they are summarized and studied mostly at the level of priority axes and procedures, and information at the level of specific projects is used only if necessary (in cases of outliers, large projects and other exceptional cases). Table 1 shows how the resources under the OPs are assigned to one or another factor of production.

These outlined correspondences between production factors and spent EU funds allow us to quantify the contribution of EU funds to the economic growth in Bulgaria for the period 2007-2014 by comparing actual reported economic growth (i.e. including the contribution of the funds) with the estimated economic growth, where the production factors are cut down in proportion to amount of EU funds spent for their accumulation.

### 1.2. Estimation of the Production Function

The parameters in the production function representing the elasticities of GDP to each of the production factors are estimated using Bayesian methods on data for the respective macroeconomic indicators for the period 2000-2014.

For the formulation of the priori distributions of the parameters, a review of the relevant economic literature was made. It showed that a variety of estimates of the elasticity of GDP from the production factors, as defined by us, exists. Table 2 presents estimates of the elasticity of production factors obtained in other studies.

Table 2  
Estimates of the Elasticity of GDP by the Specified Production Factors in the Economic Literature

	GDP elasticity of production factors				
	Labour	Human capital	Private physical capital	Public capital	Level of technology and innovation
De la Fuente (2003)	0.597	0.286	0.297	0.106	
Varga and in't Veld (2010)				0.100	
Allard et al. (2008)				0.100	
Meliholvs and Davidsons (2006)	0.660		0.340		
Mankew, Romer and Weil (1992)	0.330	0.330	0.330		
US Congressional Budget Office (2005)					0.020 to 0.050

\* In De La Fuente (2003) the GDP elasticity of labour has not been estimated, but it was calculated under the assumption of constant returns to scale, i.e. as  $1 - \text{elasticity of private physical capital} - \text{elasticity of public capital}$ .

Table 3  
Estimated GDP Elasticities of the Specified Production Factors

Factor	Estimate
$\alpha_1$ (Labour)	0.290
$\alpha_2$ (Human capital)	0.310
$\alpha_3$ (Private physical capital)	0.285
$\alpha_4$ (Public funds)	0.087
$\alpha_5$ (R&D and innovation)	0.022
$\alpha_6$ (Quality of institutions)	0.006

The elasticities in table 3 are used to determine the a priori average elasticity necessary for the Bayesian estimation. Table 3 presents the results of the estimation of the production function with Bulgarian data.

The results obtained are relatively close to those reported in other referenced studies. Similar to Mankew, Romer and Weil (1992), the shares of labour, human capital and physical capital (the sum of private and public) are about 1/3. The elasticity of R&D and innovation is within the range from 0.020 to 0.050, as defined in survey of the US Congressional Budget Office (2005). In the case of Bulgaria, it could be expected that the GDP elasticity of R&D would be higher, given the low base of research and innovation in the country. Our estimates, however, are at the lower end of the range, which is probably indicative of the still low quality and little practical relevance of the research and development in the country. The coefficient of elasticity of GDP from institutional quality is not measured, but it is calculated under the assumption of constant returns to scale in the production function.

### 1.3. Evaluation of the Contribution of the EU Funds to Economic Growth

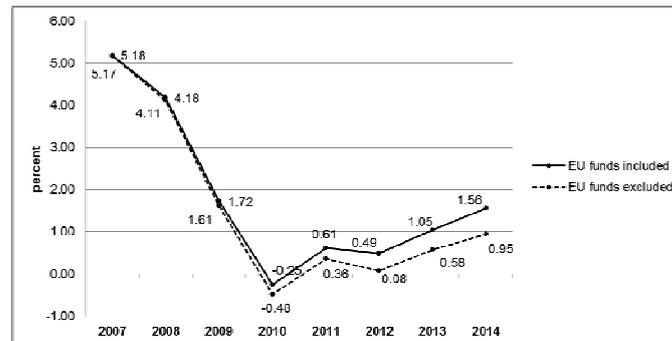
The results of the calculations of the potential growth with and without European funds with the estimated production function are presented in table 4. Potential growth itself is estimated in the customary way, by an application of a Hodrick and Prescott filter to the time series of GDP at constant prices.

Table 4  
Estimated Contributions of Production Factors to Potential GDP Growth (percentage points)

Year	Potential growth	Labour	Human capital	Private physical capital	Public physical capital	R&D	Quality of institutions	TFP
With EU funds								
2007	5.18	0.45	1.06	2.13	0.18	0.17	0.00	1.20
2008	4.18	0.23	0.60	2.69	0.16	0.17	-0.03	0.35
2009	1.72	-0.21	0.14	1.66	0.05	0.17	0.12	-0.21
2010	-0.25	-0.59	-0.43	0.83	0.04	0.19	-0.02	-0.27
2011	0.61	-0.43	0.40	0.74	-0.05	0.15	0.00	-0.20
2012	0.49	-0.64	0.43	0.63	0.02	0.17	0.01	-0.13
2013	1.05	-0.40	0.72	0.52	0.07	0.16	0.00	0.00
2014	1.56	0.09	0.47	0.58	0.07	0.16	0.00	0.20
Without EU funds								
2007	5.17	0.44	1.06	2.13	0.18	0.17	0.00	1.20
2008	4.11	0.20	0.60	2.69	0.16	0.17	-0.05	0.35
2009	1.61	-0.26	0.13	1.66	0.02	0.17	0.10	-0.21
2010	-0.48	-0.67	-0.43	0.76	-0.03	0.17	-0.01	-0.27
2011	0.36	-0.53	0.40	0.73	-0.18	0.14	0.00	-0.20
2012	0.08	-0.75	0.42	0.57	-0.16	0.16	-0.03	-0.14
2013	0.58	-0.51	0.70	0.48	-0.16	0.12	-0.05	-0.01
2014	0.95	0.00	0.40	0.55	-0.18	0.05	-0.06	0.19
Difference in contribution								
2007	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.00
2008	0.06	0.03	0.00	0.00	0.00	0.00	0.03	0.00
2009	0.11	0.05	0.00	0.00	0.03	0.00	0.02	0.00
2010	0.23	0.08	0.00	0.07	0.07	0.02	-0.01	0.00
2011	0.26	0.10	0.00	0.01	0.13	0.01	0.00	0.00
2012	0.42	0.11	0.01	0.06	0.17	0.01	0.04	0.00
2013	0.48	0.11	0.02	0.03	0.23	0.04	0.05	0.01
2014	0.61	0.09	0.06	0.03	0.26	0.10	0.06	0.01

According to our estimates, the contribution of EU funds to potential growth exceeds 0.4 percentage points since 2012, and even exceeds 0.6 percentage points in 2014.

Figure 1  
Evaluation of Potential Growth with and without the Contribution of EU Funds



Source: NSI, UMIS, World Bank, own calculations.

The main contribution of EU funds to economic growth comes from investments in **public capital**. These investments are mainly in transport and infrastructure – road and railway infrastructure, water treatment plants, social infrastructure, energy efficiency of housing, improvement of the urban physical environment and risk prevention and sustainable urban transport. Investments in this type of infrastructure are significant, which explains the high contribution to growth despite the relatively low elasticity of GDP from public capital. These investments have an immediate positive effect on economic growth by improving connectivity, energy efficiency and quality of life in the country.

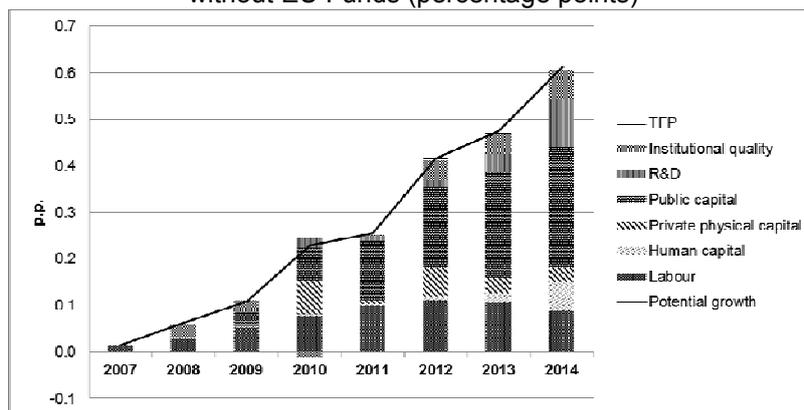
European funds also finance a considerable part of the contribution of **R&D and innovation** to growth. Although the elasticity of GDP to R&D is not very high, the nearly 300 million BGN invested in 2007-2014 under the Operational Programme "Development of the Competitiveness of the Bulgarian Economy" (OPDCBE) and partly under the Operational Programme "Regional Development" (OPRD), contribute to potential growth by about 0.1 percentage points in 2014. OPRD financing mainly relates to innovation in ICT, innovative cultural events and tourism marketing, while OPDCBE funding was intended for innovative technologies and products, process automation, innovative management solutions, etc.

Investment in **human capital** with European funds in 2007-2014 is also significant (about 724 million BGN). The expenditures are, however, concentrated in schools and universities. Therefore, significant effects could be expected in the medium and long term (between 5 and 15 years). In 2014, their contribution to potential growth comes mainly from internships, general and specialised training of adults, programmes for doctoral students and post-docs, financed under the Operational Programme "Human Resources Development" (OPHRD).

Investment in **quality of institutions** improvement under European operational programmes has a contribution to potential growth similar to that of the human

capital. The investments amount to 722 million BGN and are provided primarily under the Operational Programme "Administrative Capacity" (OPAC) and Operational Programme "Technical Assistance" (OPTA), interregional and transnational cooperation, as well as the priority axes for technical assistance in the other operational programs.

Figure 2  
Differences in the Contributions of the Production Factors to Potential Growth with and without EU Funds (percentage points)



Source: NSI, UMIS, World Bank, own calculations

The contribution of **private physical capital**, financed by the EU, to the potential growth reached 0.030 percentage points in 2014. Under OPDCBE mainly modernization projects and efficiency improvements of a multitude of private companies have been financed, as well as higher energy efficiency, expanding production capacity, improvements of the management structure, introduction of systems for quality management and other activities leading to the improvement of the competitiveness of the private sector of the Bulgarian economy.

Finally, investments in higher **employment** for improving potential growth should also be mentioned. They are made under OPHRD and contribute to potential growth by 0.090 percentage points in 2014. Unlike the investments in human capital, which are expected to have an increasing positive effect on growth in the medium and long term, with respect to the investments directly related to the creation of employment in the labour market we would expect fading effect on employment in time. Their main contribution is increasing the income of the beneficiaries from the interventions and maintaining work habits of the long-term unemployed and the unemployed from the vulnerable groups in society.

In summary, it can be argued that the contribution of European funds invested in Bulgaria in the period 2007-2013 to long-term economic growth was mainly through the accumulation of public capital. Given the significant amount of funds invested in increasing employment and innovation, these two production factors also have seen a significant positive change. In the medium and long term, however, one can expect significant positive effects through investments in human capital.

## **2. Policies for Encouraging Employment and Labour Productivity in the Operational Programme “Human Resources Development”, Priority Axes 1 and 2**

Encouraging economic activity, employment participation and increase in labour productivity are significant factors of growth. The share of “labour” as a factor in GDP growth is relatively high. This indicates that encouraging the participation of people in employment and increasing their labour productivity are the right steps on the road to a better economic development and social prosperity. The understanding of the importance of the “labour” factor from the standpoint of economic growth is translated into specific policies, aiming to stimulate people to participate in the labour process and to increase the quality of their labour. Operational programme “Human Resources Development” (OPHRD) is one of the instruments for implementing such policies with grant financing from the European Social Fund (ESF).

### *2.1. Scope and Consistency of the Employment Policy*

The policy for employment increase, presented in OPHRD 2007-2013, is organized around its strategic objective: “to improve the quality of life of people in Bulgaria *through enhancement of the human capital, achievement of high employment levels, improvement of the productivity, access to high-quality education and lifelong learning and strengthening the social inclusion*”.<sup>39</sup>

Three specific objectives have been formulated for the purposes of meeting the main goal as follows: increasing labour supply and quality of the labour force; more intensive investment in the human capital through a better and more accessible education; more social capital, partnerships and networks and development of the social economy.

The formulated main objective and its respective specific goals are *clearly focused on ensuring the economic growth now and in the future with an active qualitative labour factor*.

Consistent and sustainable policies have been formulated for the purposes of achieving that objective. They have been presented in a series of strategic documents such as the National Reform Programmes (the first such programme is for the period 2007-2009, approved with Protocol 8.1. of the Council of Ministers from March 1<sup>st</sup>, 2007; the last actualization of the programme is from 2014 – “National Programme for Reforms of the Republic of Bulgaria in Implementation of the Europe 2020 Strategy”). Other such documents are the Employment strategies (the first one is for the period 2004-2010, while the last one is “Updated Employment Strategy of the Republic of Bulgaria 2013-2020”, approved with Protocol 4 of Council of Ministers from October 9<sup>th</sup>, 2013). The National Action Plans on Employment and the annual reports to them are the operative documents, which report on the implementation of the conducted policies.

---

<sup>39</sup> OPHRD 2007-2013, p. 6, <http://www.eurofunds.bg/>.

The unfavourable demographic environment, which lowers the birth rate of the population and the natural growth rate of the labour resource, highlights the importance of the implemented policies. Given the sustained negative natural growth rate of the population and the intensive emigration processes, the efficient utilization of the available labour resource through employment inclusion and labour productivity increase constitute priority policies with no feasible alternative.

**Priority axis 1.** *Promotion of economic activity and development of inclusive labour market*

**Priority axis 2.** *Raising productivity and adaptability of the employed persons*

**Priority axis 3.** *Improving the quality of education and training in correspondence with the labour market needs for building a knowledge-based economy*

**Priority axis 4.** *Improving the access to education and training*

**Priority axis 5.** *Social inclusion and promotion of social economy*

**Priority axis 6.** *Improving the effectiveness of labour market institutions and of social and health care services*

**Priority axis 7.** *Transnational and interregional cooperation*

**Priority axis 8.** *Technical assistance*

The understanding of the significant importance of employment and labour productivity as sources of growth is reflected by the continuity of the policies in the long term, as seen from OPHRD 2014-2020. Employment, reducing poverty and encouraging social inclusion are among the priorities, which focus on two of the goals of the “Europe 2020” Strategy of the EU and the national goals for the “Horizon 2020”, namely: (1) employment of no less than 76% of the population aged 20 to 64 as of 2020; and (2) reduction of poverty by 260 000 people by 2020. These goals pose a significant challenge to the policies, which are part of the three pillars of OPHRD 2014-2020:

- (1) higher employment rate and better quality employment;
- (2) reducing poverty and promoting social inclusion;
- (3) modernisation of public policies.

**From the standpoint of the “labour” factor as a source of growth**, the policy conducted with the support of ESF during the period 2007-2013 *focuses on activation of the groups at risk in employment and on training employed and unemployed persons. Other important aspects, such as the reproduction of the labour resource, remain within the scope of the national financing. The underestimation of this aspect and the limited national funding of policies aimed at overcoming the significant demographic*

disparities<sup>40</sup> condition the one-sidedness of the strategic objective – to ensure the availability of sufficient and qualitative labour resources as a factor of economic growth.

## *2.2. Implementation of the Policies for Encouraging Employment and Increasing Labour Productivity*

The assessment of the envisioned policies is based on the utilized financial resource; the achieved qualitative indicators are compared to the goals of the policies and the degree of satisfaction of the involved parties. *The key question*, which is addressed, is how these policies have contributed to the development of labour resources as a factor of growth in the short and long run.

### Financial resources

The economic policies, envisioned by the aforementioned priority axes of OPHRD 2007-2013, are financed **from the European Social Fund to the amount of 1031 million EUR**. The share of the active policies financed by ESF in total increases during the six-year period and comprises 79% of total resources in 2013. The distribution of the financial resources complies with the development of the programme over the years and the increase of its scope. Logically, the amount of resources allocated during the last years is largest. During the period 2007-2013 the allocated resources increase from 75 million EUR (2007) to 110 million EUR (2008), 150 million EUR (2009), 158 million EUR (2010) and 169 million EUR (2011). The allocated amount over the last two years is 180 million EUR per year. National co-financing comprises 15% of total financing for all priority axes.<sup>41</sup>

The policies for encouraging employment and labour productivity (priority axes 1 and 2 of OPHRD) comprise 21 and 18% respectively of the resources allocated within the framework of the programme: **216 million EUR have been allocated for encouraging economic activity and 185 million EUR for increasing labour productivity, making a total of 402.4 million EUR.**

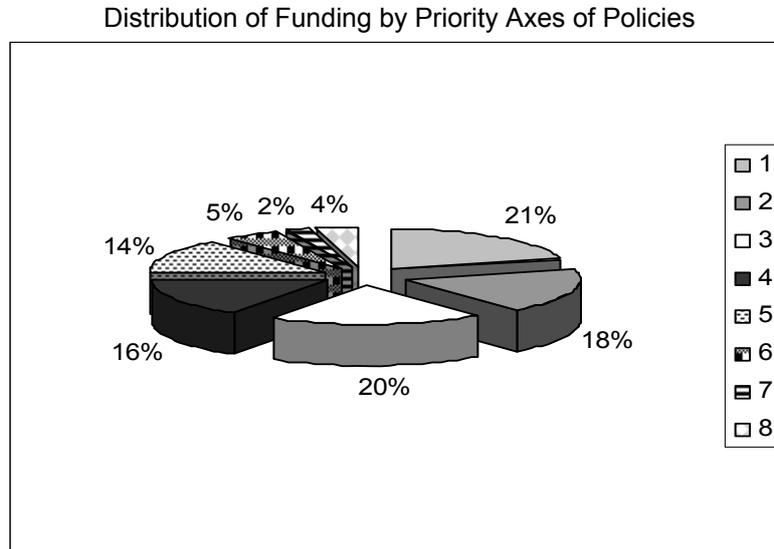
The increase in the investment in human capital through a better and more accessible education is the second largest expenditure item (axes 3 and 4). The resources allocated for the purposes of social inclusion and promotion of the social economy (priority axis 5) rank third. 11% of total resources are allocated to priority axes 6, 7 and 8. This allocation of the resources highlights the prioritization of the interventions within the framework of the programme.

---

<sup>40</sup> I.e. policies, aimed at expanding the labour force through a decrease of infant mortality, increase in the birth rate and improvement of the family environment, as well as policies in the field of migration.

<sup>41</sup> Annual reports of the Employment Agency for respective years.

Figure 3



Source: OPHRD, 2007-2013, p. 145.

The data about the implementation of the operational programmes (regularly presented on the website of the programme for European funds in Bulgaria) indicate that as of December 31<sup>st</sup>, 2014 107.2% of the available resources within the framework of OPHRD have been contracted, 83.8% have actually been allocated, and 83.1% of the resources have been received by EC. In comparison to the other operational programmes, the share of actually allocated resources is much higher. In absolute values, the resources transferred to the beneficiaries are to the amount of 1017 million EUR, while the resources from the European funds received during that period amount to 857 million EUR.

*Bulgaria commenced the implementation of OPHRD with a low degree of readiness of specific policy schemes, of preparedness of the institutions to implement those schemes and a low level of information provision to all participants in the process. Hence, the first three years passed in activities for preparation, contracting and information provision to potential beneficiaries of the policies within the framework of OPHRD. Only 5 OPHRD schemes are implemented in 2008. In 2009 they are supplemented by a limited number of schemes for training and acquiring professional qualification and key competences. Most of the schemes within the framework of OPHRD commence in 2010, while the most extensive policy in terms of number of schemes (15 in total) is implemented in 2012.*

**It can be concluded** that the three-year preparatory period is too long and indicates that *the institutions have not had a sufficient preparation in the elaboration of programmes. They act sluggishly during the process of their approbation. The necessary institutional infrastructure (legal base) and labour capacity for conducting*

policies develops slowly. All these facts should be highlighted as a problem during the first period of assimilation of the funding by the ESF.

Another specific characteristic is the existing mismatch between the actual needs of the labour market and the envisioned policies. This creates an attitude of “absorbing some funds” and an insufficiently accurate assessment of the long-term goals. In the conditions of strict financial restrictions, the resources from ESF constitute the main source of support provision for policies, including anti-crisis ones. This approach of transferring active policies from the state budget towards co-financing by ESF does not allow for further restructuring of the labour market.

Increasing the employability and quality of the labour resources is in itself an important policy with long-term effects on growth. From this point of view, the priority given to the first two axes of OPHRD is advantageous in itself. On the other hand, there is some doubt about their efficiency in view of the significant skill mismatch between the supply and demand for labour in the country – a fact, frequently underlined in the annual reports on the implementation of OPHRD.

#### Degree of fulfilment of the objectives of OPHRD

The so-called key indicators, specified in OPHRD, are used for the purposes of assessing the impact of the policies on human resources. The long-term goals of the Lisbon strategy have also been specified. They are consequently lowered to reflect the impact of the international economic crisis.

The impact of OPHRD on the development of human resources in Bulgaria is analysed through a set of key indicators, specified in the programme and presented in table 5.

Table 5

Main Indicators of Human Resources Development

Indicators	2006	Objectives until 2013	Achieved result	Lisbon objective
Employment rate (age group 15-64)	58.6	64.0	59.5	70.0
Employment rate – women (age group 15-64)	54.6	56.0	56.8	60.0
Employment rate (age group 55-64)	39.6	42.0	47.4	50.0
Unemployment rate (age group 15+)	9.0	6.0	12.9	-
Youth unemployment rate (age group 15-24)	19.5	16.0	25.7	-
Long-term unemployment rate – more than 12 months (% of the workforce)	5.0	4.0	7.4	-
Early school leavers	20.0	13.0	12.5	10.0
Share of peuples with completed secondary education	76.5	84.0	86.0	85.0
Participation in life-long learning	1.3	5.0	1.7	12.5
Peuples living in households with an unemployed individual	13.0	10.0	14.8	-

Source: OPHRD, 2007-2013, p. 83-84.

The data on the achieved levels of the indicators in the end of 2013 is taken from NSI. For two indicators the envisioned levels have been exceeded – employment rate of women and employment rate of the age group 55-64. The achieved rates of

employment of the labour resources remain lower than the envisioned ones. The target values are also not achieved for all indicators related to a decrease in unemployment, as well as lifelong learning, percentage of people living in households with an unemployed individual and the percentage of early school leavers.

Two significant questions arise in view of the degree of achievement of the envisioned target levels: a) to what extent the conducted policies have contributed to stimulating the development of employment and increasing its productivity (adequate schemes for encouraging economic activity and creating jobs; flexibility on the labour market, including well-functioning institutions; sustainability of employment; quality of employment and others); and b) to what extent the factors external to the labour market system have impeded the normal implementation of the programmes and, more specifically, to what extent the impact of the international financial crisis and the political and social instability in the country has hindered the implementation of OPHRD to the maximal extend.

The analysis of the specific schemes representing the first two priority axes of OPHRD (promotion of economic activity and development of inclusive labour market and raising the productivity and adaptability of the employed persons) will address these questions. Data from the annual reports on the implementation of the operational programmes and the intermediary assessments<sup>42</sup> have been used, as well as assessments and scientific studies of the impact of the crisis on the labour market, etc. The specification of the analysis and the assessments of the policies in terms of the development goals and the results achieved in the end of the period are conducted on the basis of an analysis of the programme-specific indicators and expert assessments. Conclusions are drawn regarding the effects of the achieved results on economic development and growth in the short, medium and long term.

The policies, financed by ESF within the framework of the first two sub-goals, are represented by various schemes aimed at the inclusion of more individuals in education, qualification and employment. Oftentimes these schemes are combined. Education is envisioned for the first phase and employment for the subsequent phase. A series of schemes envision a combination of training and employment over time. These schemes aim at:

- encouraging employment through stimulation of the development of entrepreneurship (with the following two components: training and consultation, and newly established enterprises); for adaptability – scheme “Back to work” and “Development” (including training and employment following training);
- improving the professional characteristics of the employed (scheme “I can”);
- creating employment for youngsters through provision of internship opportunities; schemes “I can do more”; “Closer to work”; “First job”;

---

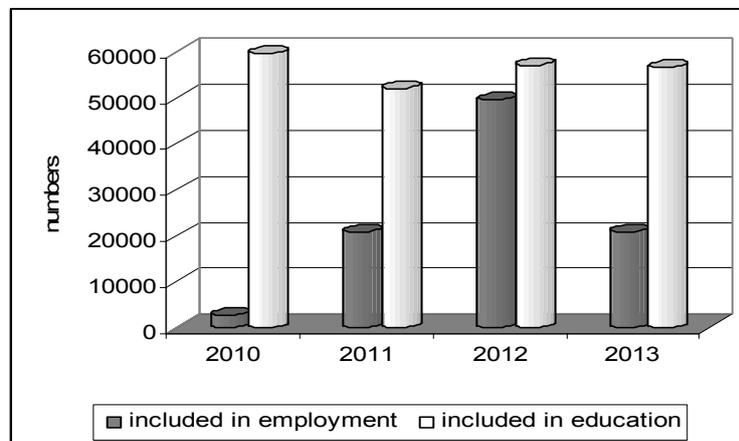
<sup>42</sup> Documents concerning European funds in Bulgaria, which are published on governmental website.

- encouraging employment; qualification and motivation for competitive inclusion on the labour market; qualification schemes and services; scheme “Take life into your own hands” (Annex 11 to Annual Report 2013, Employment Agency).

The results achieved by the schemes within the framework of OPHRD as of the end of 2013 indicate that the total number of participants in the projects is **360 064 people**.

The number of employed individuals, who have participated in various forms of training for improvement of qualification and for acquiring key competences, predominate in comparison to the number of unemployed individuals, who were included in employment or internship following training within the framework of OPHRD schemes. The fact that in the design of the specific schemes priority is given to the improvement of the professional qualification and competences rather than to the inclusion in employment of the unemployed *has both positive and negative consequences*. The anti-crisis characteristic of this approach towards maintaining the employment level can be classified as positive. The increase of their productivity (resulting from the conducted professional training) is also a positive characteristic. The negative consequences are that the effects are short-term, given a continuation of the crisis and the subsequent stagnation, reflected by the increase of unemployment rate, particularly long-term unemployment. Some of the negative effects can be traced on figure 4, which indicates that as economic stagnation persists and unemployment increases, the number of participants in such policies within the framework of OPHRD decreases during the period 2008-2012.

Figure 4  
Participants in Policies for Encouraging Employment and Increasing Labour Productivity



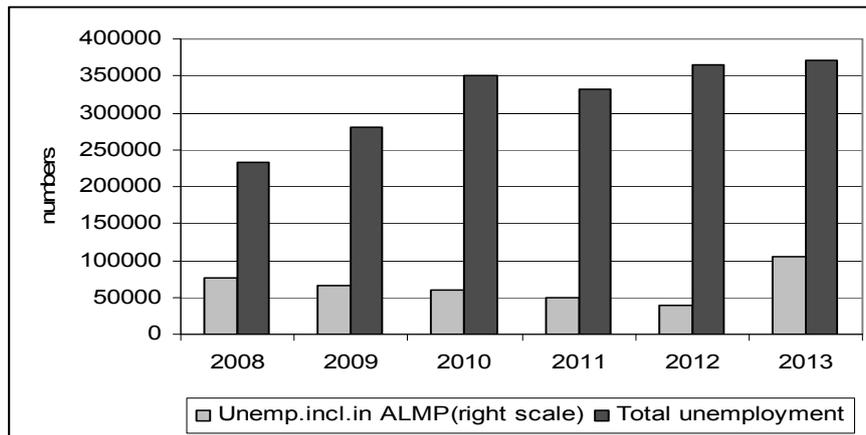
Source: Annual Report, 2013, Employment Agency, p. 66-67.

The data also indicate a decreasing number of newly included unemployed individuals over the years. A significant increase is only registered in the last year.<sup>43</sup> The share of

<sup>43</sup> 104 654 people in 2013 compared to 39 593 people in 2012, 49 618 in 2011, 58 862 in 2010, 66 840 in 2009 and 76 249 people in 2008.

unemployed individuals, who have participated in the various types of policies, in the total number of unemployed individuals, however, remains lower – 28.2% in 2013, 10.8% in 2012, 14.9% in 2011, 16.7% in 2010, 24% in 2009 and 32.6 in 2008.

Figure 5  
Number of People included in employment within the framework of OPHRD and total number of unemployed people



Source: Data from the Employment Agency, annual reports for the respective years.

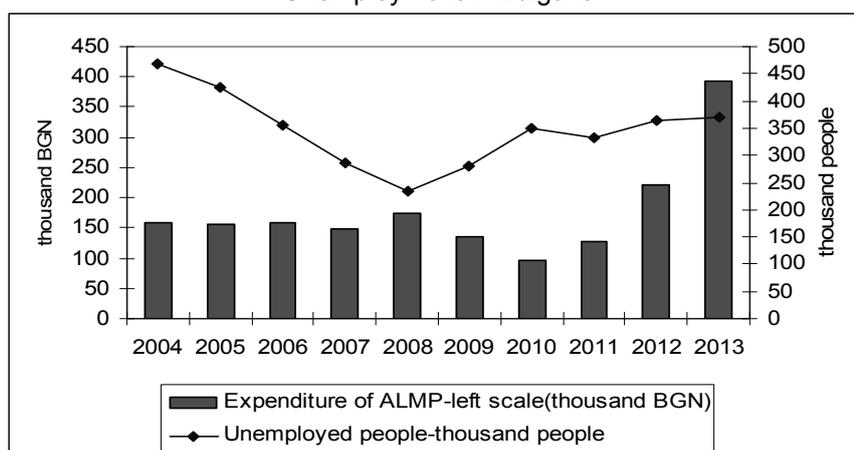
*The limited inclusion of unemployed people in active labour market policies (ALMP) is not in line with the phase in the economic cycle and the anti-crisis behaviour of the state. In the end of 2008 the international crisis began to manifest in Bulgaria. The crisis is characterized by an increase of unemployment, and the interests of the state should logically be focused on preserving jobs and preventing a “boom” in unemployment. This did not happen because of prioritization of strict fiscal restrictions, implemented as a tool for combating the crisis. Fiscal restrictions were implemented in the field of ALMP as well. The financial restrictions in all channels of the economic system caused the loss of jobs, bankruptcies of the small and medium-sized businesses and naturally limited job opportunities for the unemployed. So the excessive fiscal discipline restricted employment policy to a minimal number of participants in employment programmes.*

*The decrease of the number of employed individuals had a positive impact on labour productivity. However, this did not occur as a result of a restructuring of employment and of the lines of manufacturing, but rather predominantly as result of the decrease of employment.*

The fiscal pressure over the labour market is clearly reflected by the dynamic of the expenditures for active labour market policies and the number of unemployed (figure 6).

During the period 2003-2008, the expenditures decreased, while unemployment registered insignificant fluctuations. When unemployment increased during the crisis years, the expenditures started to slowly increase, but they remained lower in comparison to 2003, particularly in the midst of economic crisis and high employment.

Figure 6  
Dynamic of Expenditures for Active Labour Market Policies and Total Number of Unemployment in Bulgaria



Source: Data from the Annual Reports of the Employment Agency for the respective periods.

*There is yet another contradiction:* the relative share of unemployed, included in active labour market programmes, in the total number of unemployed individuals is higher during periods when the programmes are mainly financed from the state budget, while during period of high unemployment and predominant financing from OPHRD this share decreases. One of the explanations here is that training (including training of the employed) is prioritized by the Operational programme. Given the existing configuration of the policy, some of the unemployed are in a somewhat of a disadvantageous position with regard to the access to active labour market policies. The structure of the schemes, funded by the state budget and ESF, should hence be examined in more depth. For individuals with low education and motivation, women and elderly, passing training and obtaining the respective qualification is problematic, particularly for those who live in small settlements and have an unequal access to the policies shown in table 6.

Table 6  
Persons from Vulnerable Groups, Included in Active Policies, Financed with Resources from ESF

Year	Total number	Long-term unemployed (%)	Youngsters up to the age of 29 (%)	People aged 50+ (%)	Disabled people (%)
2013	172389	18.3	25.2	22.3	2.2
2012	179460	13.7	24.8	27.1	1.5
2011	141740	15.2	21.0	26.8	2.7

Source: Data from the Annual Report 2013, Employment Agency, Annex 11.

Table 7 presents a synthesis of the outcomes of the concrete schemes.

Table 7  
Specific Schemes, Number of Participants and Funding from OPHRD (in the end of 2013)

Name of the scheme	Number of participants from the start of the project until the end of 2013	Funding (million BGN)	Envisioned number of participants
Encouraging the initiation of projects for development of independent economic activity – component 1	14495	36	16250
Encouraging the initiation of projects for development of independent economic activity – component 2	10365	50	10400
Adaptability	3271	90	3454
Back to work	7082	64	-
Creating employment of youngsters through internship opportunities	9166	35	8930
Development	112828	240	
Promoting employment	25100	80	
I can	60642	26	
I can do more	95324	99	
First job	4333	20	
Closer to work	5499	8	
Qualification and motivation for competitive inclusion on the labour market	3722		4665
Qualification services and promotion of employment	2989	36	3103
Qualification services for training of employed people	Phase 1 – 22632 Phase 2 – 43535 Phase 3 – 11149	14 18 50	15126

The people from vulnerable groups who have participated in the various policies comprise a mere 5% of all unemployed individuals in 2009, while their share in total unemployment continuously increases – to 35% in 2010, 57.5% in 2011, 72.3% in 2012 and 78.7% in 2013.<sup>44</sup> The youngsters, the people aged 50+ and the long-term unemployed are the main groups, on which the inclusion efforts are focused. *Nevertheless, the share of these groups in total unemployment remains large, which shows that inclusion in these programmes does not provide a lasting solution to the problem.*

- Policies for employment and increase in economic activity (Priority axis 1)

A series of schemes have been implemented within the framework of this group of policies, such as: “First job”, “Increasing employment of youngsters through permanent inclusion on the labour market”, “Supporting and promoting employment in sectors with labour shortages”, “Creating conditions for an active labour life of people above the age of 50 and of the long-term unemployed”, “Encouraging start-up projects for development of entrepreneurship”, “Back to work”, “Development” and “Creating employment of youngsters through internship opportunities”.

<sup>44</sup> Annual Report, Employment agency, p. 56.

*The following should be highlighted as the most significant problems during the implementation of the presented policies:*

- The assessment of the efficiency of the policy cannot be sufficiently adequate if it is solely based on the current quantitative information about the financial resources and the absolute number of participants in the programmes. The increase of the expenditures per unemployed, included in employment or training programmes, does not show the effects of the co-financing from ESF on labour force employment inclusion. For example, in 2010 the total number of long-term unemployed, who participated in employment and training schemes within the framework of OPHRD, is 2440, which comprises an insignificant percentage of total long-term unemployment. Does this mean that the policies are ineffective?
  - The period of reporting the resources and the time of inclusion in a given programme do not coincide in time, which significantly distorts the perception of the impact of the incurred expenditures. This fact has been explicitly pointed out in the Yearbook for 2010 of the Employment Agency (p. 37-38).
  - The multitude of actions should supplement, expand and build on the active and preventive measures on the labour market. But is this really the case? The alternatives to activation and inclusion in employment remain within the scope of the recommended schemes, which offer similar services – registration, consultation, information provision, training, employment.
- Policies for increasing productivity through qualification and training of the labour force (Priority axis 2)

They are the most “large scale” programmes from the standpoint of the number of participants. Employed and unemployed people participate in a variety of forms of training as a means to attain/increase their professional qualification and acquire key competences. In 2013 the greatest number of participants (newly included individuals) took part in the scheme “I can” (41 103 people), followed by the scheme “Promoting employment” (15 722 people) and the scheme “Qualification and motivation for competitive inclusion on the labour market” (11 126 persons). For the other schemes the number of newly included participants ranges from 1000 to 2000 people, while some schemes have a significantly smaller number of participants – for example the scheme for encouraging entrepreneurship in its component “newly established enterprises” has 141 participants and the training component of this scheme – 254 persons. The outcomes of their participation is reflected by the beneficiaries’ assessment.

**Assessments of the beneficiaries** regarding the usefulness of the policies within the framework of programmes “I can” and “Qualification services and training for employed people” of OPHRD (Priority axes 1 and 2)

- *Satisfaction of the employees who participate in schemes for improvement or attainment of professional qualification and key competences*

According to the intermediary assessment reports, the interviews conducted as a means to study the effectiveness of the programmes indicate that the majority of the schemes receive a positive evaluation; the beneficiaries consider them useful and necessary.<sup>45</sup> A high level of satisfaction has been registered – 58.1% of the respondents with completed professional qualification courses are entirely satisfied, while amongst the participants in trainings for the attainment of key competences this percentage is 38.7%. The shares of partially satisfied participants are 29.7% and 22.9%, respectively. This means that share of participants not satisfied by the training is 12.2% for the professional qualification training and 38.4% for the training in key competences.

- There is a compliance between the expectations and the actually acquired knowledge (89.7% of the respondents state that the content of the courses meets their expectations, 7.7% state that it partially meets their expectations, and 2.6% cannot determine that).
- *Assessment of the actual impact of the programme on the development of labour resources*
  - 24% of the participants in qualification courses and attainment of key competences report an improvement of their position at work.
  - 46.6% of the participants in training within the framework of scheme “I can” report better level of execution of their professional duties.
  - Training has helped 4.2% of the respondents to find a new job.
  - For another 2.7% it has resulted in an increased pay.
  - 21% of the respondents have a negative attitude towards the achieved results (the training in professional qualification courses or courses for attainment of general competences has had no impact); for 3.1% it has led to problems at work, while another 18% cannot determine what the impact was.
  - It is apparent that the general opinion about the importance of training is predominately positive. However, it should be pointed out that nearly 42% of the participants in programme “I can” are not satisfied.
- *Sustainability of the achieved results*

82.1% of the target group believe that their participation in training within the framework of programme “Qualification services and training of employed people” will benefit them in the future, i.e. they will use the acquired knowledge in the future. 62% of the respondents state that the benefits from the training manifest immediately following its

---

<sup>45</sup> Report from a study of the implementation, progress and satisfaction with scheme “I can” of OPHRD, conducted by the Assessment, Monitoring and Coordination Unit to the European funds, International Programmes and Projects Directorate at MLSP.

completion, while another 33% believe that it is the companies, in which they work, that will benefit.<sup>46</sup>

- *Effects from participation in the programmes for the companies*

The effects from the participation in the programmes for the companies are various and include:

- increase of labour productivity (41.3%);
- introduction of innovative strategies and models (26.1% of the representatives of the beneficiaries and 38.5% of the representatives of partners);
- realization of the need for implementation of modern practices for human resource management through training of the employed; development of cooperation between beneficiaries and partners, and implementation of good practices (54.3% of the representatives of the beneficiaries and 61.5% of the representatives of partners);
- future successful partnership for training of the employees; improvement of the reputation of the organizations;
- increased capacity for successful participation and implementation of projects, financed by ESF (84.8% of the representatives of the beneficiaries and 53.8% of the representatives of partners).

### *2.3. Summary and Recommendations*

**In summary**, the following conclusions about the implemented policies may be formulated with regard to their goals and impact on the development of human resources:

1. Encouraging economic activity and inclusion in employment, as well as the increase of the quality of labour resource through training and qualification, *constitute policies of primary importance from the standpoint of ensuring qualitative and dynamic economic growth*. Hence, targeting (redirecting) grant funding of 1031 billion EUR from the ESF through OPHRD is a sound approach, particularly during a period of economic crisis and limited possibilities for financing from the state budget.
2. The goals, formulated by OPHRD, with regard to stimulating economic activity and employment, as well as increasing labour productivity, are partially achieved, which is due to the strong negative impact of the crisis on the demand for labour. The crisis significantly contributes to a decrease of the efficiency of the implemented

---

<sup>46</sup> Impact Assessment, Final Report.

policies, as well as transformation of some of these policies into anti-crisis measures.

3. In addition to the external shocks on the labour market, the efficiency of the implemented policies in the analysed field is impacted by the internal imperfections of the labour market, such as insufficient flexibility, lack of skills and experience with the management of funding from the ESF, lack of sufficient institutional capacity for implementation and assessment of policies.
4. The partial fulfilment of the policy goals is reflected by the fact that employment decreases by 11% during the period 2008-2013 (from 3 289 900 to 2 931 600 people for the age group 15+ and from 3 211 400 to 2 871 500 people for the age group 20-64), while unemployment increases from 6.5 to 13% (from 228 800 to 411 000 people).
5. From the standpoint of the implementation of the policies, education is a priority. In that sense, the resulting effect will be a rather long-term one than short-term. For example, during the period 2008-2013, training of employed people represents 70% of all individuals, encompassed by respective policies (250 990 people of all 360 064 people included in the analysed schemes).
6. Encouraging employment and job creation is modestly represented by schemes for the establishment of new enterprises (a total of 141 people), inclusion in employment of youngsters via internships (9166 people), employment within the framework of scheme "Take life into your own hands" (1123 people), scheme "Back to work" (3569 people) and scheme "First job" (2066 people). It is apparent that such limited inclusion in employment cannot be anticipated to have a significant impact on aggregate employment.
7. The permanence of the created employment remains a subject of intense discussion, despite the specified share of nearly 60% of the participants in the analysed schemes still employed in 2014. It should, however, be pointed out that the aforementioned is only valid for some of the schemes, and many of the people who have passed through the programmes again become unemployed or drop out of the labour market.
8. The elaborated policies can be improved from the standpoint of the design of the programmes (scope of the target group, professional realization of the participants in the programmes) and their implementation (organization of the process itself, flexibility of the implemented schemes – for example, through organization of public tenders, signing of contracts, immediate verification of expenditures, etc.). As a whole, the elaborated mechanisms are cumbersome, the procedures are strenuous and the rules are not sustainable, which decreases the amount of interest and degree of trust in these policies. Despite the inclusion of people from the so-called "vulnerable" groups (such as youngsters, long-term unemployed, persons aged 50+), the unemployment level amongst these marginalized groups has not decreased significantly.
9. Mass participation of the employed in the programmes for acquiring and improving their qualification, as well as for acquiring particular key competences, raises the

question whether, and to what extent, the financing of these policies by ESF shifts the responsibility of the employers for maintaining a competitive level of the labour force (a hidden form of subsidy, particularly in the large companies). The participation of the small and medium-sized business and of sole proprietors in these programmes is not equivalent and places these participants in a disadvantaged position.

10. The excessively large number of available training organizations (111 in total) inevitably puts the quality of the education into question. The audit reports formulate numerous recommendations in relation to that and need to be coordinated with OPHRD 2014-2020.
11. The Employment Agency reported a considerable imbalance in the territorial distribution of professional training. At this stage, the reasons for this imbalance are difficult to discern, since the applications, submitted by candidates, concern specific centres and trainings, i.e. a direct correlation between supply and demand cannot be identified.

The above summary leads to the following recommendations:

1. Matching of the conducted training with the needs of the labour market, at the very least in the medium term, is a necessary condition for achieving efficiency. In crisis conditions and with a limited labour demand, targeting resources to training of the labour force is a classic anti-crisis measure, which is commonly implemented in developed market economies. Meanwhile, this measure is a prerequisite for the restructuring of the labour force in compliance with the post-crisis development of the economy. In that sense, the successful implementation of this measure requires an informational transparency concerning the priorities of the post-crisis economic development. The absence of such transparent informational environment attributes an arbitrary characteristic to training, particularly training aimed at improving the professional qualification.
2. Employment and training should not be viewed as alternatives, but rather as two aspects of the same process. The expenditures associated with conducting training become economically viable whenever their respective returns generate benefits for society, company and individual. Conducting training solely for the purposes of training indicates inefficiencies at all levels.
3. The responsibilities of the participants in the process (employers, training organization and trainees) regarding its efficiency should be extended, including through monetary liability for non-compliance with the conditions of the programme (for example, wilfully dropping out of the course, low quality of the conducted training, failure to ensure employment following completion of the courses, etc.).
4. The responsibility of the institutions, engaged in management of programmes financed by ESF and the state budget (including assumption of personal responsibility) in case of lack of efficiency and effectiveness should be extended.

### **3. Policies for Development of Human Capital through Education within the Framework of the Operational Programme “Human Resources Development”, Priority Axes 3 and 4**

#### *3.1. Scope and Consistency of the Policies in the Field of Education and Training*

The improvement of human capital and the increase of investments in its development through a better and more accessible education, as laid down in the strategic and specific objectives of the Operational Programme “Human Resources Development” (OPHRD) (2007-2013), create necessary conditions for improvement of the quality of life, for establishment of a knowledge-based economy and for achievement of a smart, sustainable and inclusive growth. Priority axes 3 and 4 are aimed at the attainment of these objectives of the operational programme.

*Priority axis 3 “Improving the quality of education and training in correspondence with the labour market needs for building a knowledge-based economy” aims at improving the employability of the labour force through high-quality education and training services, effectively performing educational and training institutions and sustainable links between education, vocational training and business.*

Main areas of intervention:

- 1) improvement of the quality of services in education and training (through updating of existing and development of new state educational requirements, curricula and syllabi at all stages and levels of education; introduction of modern information and communication technologies and means into the educational process, as well as ensuring the availability of electronic educational content; improving the qualification and career development of the pedagogical staff; continuing the introduction of the European credit transfer system in higher education institutions and developing such a system for vocational education and training institutions);
- 2) modernisation of the education and training system (through introduction of a system for internal and external assessment of the quality of education and training; improvement of the accountability and opening the system of education and training for integrating the community into the processes of monitoring, control and assessment of the provided educational services; optimisation and restructuring of the network of educational institutions);
- 3) strengthening the links between educational and training institutions, R&D sector and business (through elaboration of research programmes within horizontal scientific organisations and universities; elaboration of mechanisms for practical training of pupils and students; support to the development of doctoral, post-doctoral and post-graduate students, as well as young researchers).

*Priority axis 4 “Improving the access to education and training” aims at more successful social and career advancement of people through improvement of the conditions for equal access to education and training and development of the lifelong learning system.*

Main areas of intervention:

- 1) access to education and training for disadvantaged groups (through provision of the necessary conditions and resources for implementation of the ethnic minority groups integration process via desegregation of children from schools with prevailing Roma pupils and integration of pupils into the so-called “host schools”; provision of the necessary conditions and resources for realisation of the process of integration of the people with special educational needs; educational services and activities aimed at pupils not covered by the educational system, dropouts, and pupils at risk of dropping out);
- 2) children and youth in education and society (through expansion of extracurricular and out-of-school forms of learning; elaboration of a mechanism and provision of student scholarships and loans with the aim of facilitating the access to higher education);
- 3) development of the lifelong learning system (through elaboration of a system for professional guidance and career development; development of the vocational education and training; providing opportunities for making adults literate; development of distance learning forms).

The policies for achievement of these objectives of the programme are aimed at some of the most problematic areas in the field of education and training (access and participation, quality and practical applicability) and they are outlined by a number of national strategic documents, such as<sup>47</sup>: the National Reform Programmes, elaborated in pursuance of the Lisbon Strategy and the “Europe 2020” Strategy<sup>48</sup> and the National Development Programme “Bulgaria 2020”.<sup>49</sup>

These policies are also laid down in strategic documents, related specifically to the field of education:

- Strategy for educational integration of the children and students from ethnic minorities (2004-2015);
- National strategy for introduction of informational and communication technologies in Bulgarian schools (2005-2007); since 2008 it has been transformed into a National programme “Informational and Communication Technologies (ICT) in school”;
- School and pre-school education development national programme (2006-2015);

---

<sup>47</sup> Such policies are also laid down in other documents, such as the National Demographic Strategy of the Republic of Bulgaria (2006-2020, updated in 2012 for the period 2012-2030), the (Updated) Employment Strategy (2004-2010, updated for the period 2013-2020), the Employment Promotion Act (2001, last updated in 2014), and others. The improvement of the access and of the quality of education, the increase in the share of highly educated population and of the participation in lifelong learning are among the priorities of the “Europe 2020” Strategy and of the European Strategic Framework “Education and Training 2020”.

<sup>48</sup> The first programme is adopted in 2007. The last updating is of May 2014.

<sup>49</sup> The programme is adopted by the Council of Ministers in 2012. The first of its eight priorities is: “Improving the access and the quality of education and training and the qualitative characteristics of the labor force”.

- National strategy for lifelong learning (2008-2013 and 2014-2020);
- National youth strategy (2010-2020).

A Strategy for preventing and reducing the share of dropouts and early school leavers (2013-2020) was approved only in the end of 2013. Three more strategic documents in this field were approved in 2014, as well as one draft of a strategy:

- Strategy for development of higher education in the Republic of Bulgaria (2014-2020);
- National strategy for literacy promotion and increase (2014-2020);
- National strategy for development of the pedagogical staff (2014-2020);
- Draft of a Strategy for development of vocational education and training in the Republic of Bulgaria for the period 2015-2020.

The growing importance of education (and science) for the economic growth and the establishment of a knowledge-based economy, as well as the existing challenges in this area constitute an important prerequisite for the elaboration of the new Operational Programme “Science and Education for Smart Growth 2014-2020” (OPSESG), aimed at increase in the quality of scientific research and education, decrease in the share of early school leavers, increase in the number of persons with higher education, creation of conditions for lifelong development of personal and professional skills and competences. They ensure continuity in the policies in the field of education and training from the OPHRD (2007-2013) in a long-term perspective.

*From the standpoint of education and training and the improvement of human capital as a source of growth, the implemented policies are adequate, of a sustainable character (targeted at main problems in the field of education and training and reflected in a number of national strategic documents), although their practical realisation in time is belated (indicated by both the large number of strategies, approved only in 2014, and a series of unfavourable indicators and assessments of the state of the field in question). The achievement of the set goals poses a significant challenge before the respective policies and its realisation will be continued through the new OPSESG, a priority of which is the promotion of equal access to high quality education and training.*

### *3.2. Implementation of the Policies in the Field of Education and Training*

#### Financial resources

Out of the OPHRD resources, 25% (206 million EUR) and 16% (165 million EUR) respectively, are earmarked for priority axes 3 and 4, which comprises 36% (371.4 million EUR) of all funds for human resources development. The increase in the investment in human capital is the second largest expenditure item, following that for

promotion of economic activity and improvement of productivity and adaptability of the employed (priority axes 1 and 2).

According to data from the Annual Report for the implementation of OPHRD for 2013, the total financing for priority axis 3 is 236 million EUR, the total sum of the certified eligible expenditures, paid by the beneficiaries<sup>50</sup>, is 100.8 million EUR, and the fulfilment rate is 42.71%. The total financing for priority axis 4 is 200.9 million EUR, the total amount of certified eligible expenditures, paid by the beneficiaries, is 114.2 million EUR and the fulfilment rate is 56.77%. At the beginning of 2015 the fulfilment under both axes is already about 90%.<sup>51</sup>

By a decision of the European Commission of March 2013, financial resources to the amount of 6.7 million EUR were reallocated from priority axis 3 to priority axis 4. Within the framework of the 13<sup>th</sup> meeting of the Monitoring Committee (November 2013), a change in the text of the Operational programme was approved, due to the significant changes that have occurred in the socio-economic conditions (the economic crisis and the worsened economic environment in Bulgaria). With the aim of adapting the OPHRD to the actual situation and the necessities of the respective target groups in need of support, the following main changes have been introduced: 1) reallocation of financial resources of 4.1 million EUR to priority axis 4 to be used for measures for improvement of the attractiveness of higher education; 2) reduction of the budget of priority axis 3 by 16.9 million EUR.

*The level of utilisation of the resources is relatively lower for both priority axes, and particularly for priority axis 3, for the period up to 2013. Some compensation of the delay is observed in 2014. The belated initiation of a number of schemes contributes to that to a certain extent. The actual implementation of some of the schemes started only in 2013 (For example, the scheme "Qualification of pedagogical specialists". First results from the implementation of the projects under the schemes "Updating curricula in higher education in accordance with the requirements of the labour market", "Improvement of management systems in higher education schools", and others are expected to be reported in 2014).*

*The change in the amount of the resources for the two axes is explained by the worsening of the socio-economic situation in the country, which creates conditions for an increase in the size of the vulnerable groups and for limiting the access to education and training. These tendencies require targeted efforts for improvement of the access and participation of the population in education and training. It should be pointed out that in all years (with the exception of 2011) greatest is the number of persons who participate in activities under policies for improving the access (schemes within the framework of priority axis 4). The number of persons encompassed by policies for improvement of the quality of education (activities within the framework of schemes under priority axis 3) is considerably smaller; this number is largest in 2012, followed by*

---

<sup>50</sup> The sum includes grant financing (co-financing by ESF and national co-financing) and own contribution by the beneficiary.

<sup>51</sup> Unified management information system for the EU structural instruments in Bulgaria (<http://umispublic.government.bg/>).

the one in 2013. An explanation of the phenomenon could be found, to a certain extent, in the belated start of the implementation of some schemes, as well as in the specificity of a number of activities in the different areas of intervention.

The reduction in the amount of the resources for priority axis 3 should not mean an underestimation of the importance of the problems with the quality of education and training. The starting point here should be the increase of the effectiveness and the efficiency of the conducted activities, and not the non-fulfilment of the target indicators. The problems with the quality of education are significant. Key indicators, such as the share of Bulgarian pupils with results below the critical level of the PISA scale in the field of reading, mathematics and science, do not show any considerable improvement. Bulgaria still ranks last in the EU and is very far from the achievement of the target indicators of the "Europe 2020" Strategy.

At the same time, together with the increase of the amount of the resources for improvement of the access (priority axis 4), achievement of long-term results/effects from the conducted activities (and subsequent financing) and an increase in their effectiveness should be sought.

#### Level of achievement of the objectives

The envisaged key indicators for determining the impact of the Operational Programme on the development of human resources (directly in the field of education and training) are three: *early school leavers* (percentage of the population aged 18-24 with at most lower secondary education and not in further education or training); *share of persons with completed secondary education* (percentage of the population aged 20-24 with successfully completed at least upper secondary education); *participation in lifelong learning* (percentage of the population aged 25-64, which participates in education and training).

For two of the indicators – share of persons with completed secondary education and early school leavers, the planned level has been surpassed. The lagging behind with regard to the participation in lifelong learning is considerable in comparison to both the European strategic objective and the national one (table 8).

Table 8

Level of Achievement of the Objectives by the Key Indicators (%)

Indicators	Baseline value 2006	Target value in OPHRD 2013	Achieved value 2013	EU-28 2013	Target 2020
Early school leavers	17.3	13.0	12.5	11.9	Target Europe 2020 – 10 Target Bulgaria 2020 – 11
Share of persons with completed secondary education	80.5	84.0	86.0	81.1	
Participation in lifelong learning	1.3	5.0	1.7	10.5	Target European Strategic Framework "Education and Training 2020" – 15

Together with these key indicators, some other important indicators, not envisaged in the Operational Programme but outlining the existing problems concerning the access to education in the country, should be pointed out.

#### Level and dynamics of the main indicators for access and participation in education

The results from the Census of the population of the Republic of Bulgaria in 2011, which includes also the category “never attended school”, indicate that the number of such persons is 81 000, and that of the *illiterates* is 112 800. Among the people self-identifying themselves as Bulgarians, 0.5% are illiterate, among the Turkish ethnic group this percentage is 4.7% and among the Roma minority – 11.8%.

According to data from the NSI, during the school year 2012/2013, 2.1% of the pupils have *dropped-out* from primary and 2.9% from lower secondary education. It should be pointed out that until 2008/2009 the share of drop-outs from primary education decreases and after that it remains unchanged (until 2012/2013). The share of drop-outs from lower secondary education continuously decreases.

Several main groups of *reasons for dropping-out of school* are formulated in the Strategy for preventing and reducing the share of dropouts and early school leavers (2013-2020): economic, social, educational, ethno-cultural, institutional and health-related reasons.

According to a report of the World Bank from 2010<sup>52</sup>, the main reason for the decrease in the enrolment of the pupils in grades 1-4 and 5-8 (calculated via the group net enrolment rate) is the closure of schools in small settlements.

The NSI data show that around 1/2 of the children have dropped out of school for family-related reasons (economic, social and others) both from primary and lower secondary education. Despite the slight fluctuations, this percentage does not change considerably during the period 2006/2007 – 2012/2013. At the same time, the share of pupils who dropped out as a result of unwillingness to study has decreased significantly during the period.

Sizable disparities are observed between the *regions* of the country with regard to the share of dropouts. For example, during the 2012/2013 school year, largest is the share of the pupils from 1-8 grades who have dropped out from general and special schools in the North-Western region (3.4%), followed by that in the North-Eastern region (3.2%), lowest is the share in the South-Western region (1.3%), while the country's average is 2.5%.

The share of *early school leavers* is 12.5%<sup>53</sup> in 2013. Characteristic of this indicator is that for the period 2007-2009 its value changes slightly. After that it improves, particularly in 2011, when it decreases to 11.8%. During the last two years it increases again and stays around 12.5%.

Empirical studies<sup>54</sup> indicate that according to nearly 19% of the lecturers at higher education schools in the country there are non-formal *restrictions of the access* to higher education, mainly for specific social groups of the population, but also in a regional and ethnic aspect.

---

<sup>52</sup> World Bank. (June 2010). A Review of the Bulgaria School Autonomy Reforms (Report № 54890-BG). The assessment from this report states that: “... dropout rates increased as a result of school closures” (p. 36 in Bulgarian; p. 29 in English).

<sup>53</sup> Persons aged 18-24 with at most lower secondary education and not in further education or training.

<sup>54</sup> The results from the studies are published in Zareva, Matev, Kirova, 2014.

Significant lagging behind is observed with regard to some key indicators of the “Europe 2020” Strategy and the European Strategic Framework “Education and Training 2020”, which are related to the policies of priority axes 3 and 4, namely: percentage of population aged 30-34 with successfully completed tertiary education (target – at least 40%, for Bulgaria 36%); share of pupils with results below the critical level for reading, mathematics and science (target – below 15%); employment rates of persons aged 20-34, having attained at least upper secondary education 1-3 years before the reference year, not participating in education or training (target – at least 82%). International<sup>55</sup> and national<sup>56</sup> assessments of the quality of the Bulgarian education, as well as some empirical studies<sup>57</sup>, show the existence of still significant problems regarding the quality and practical applicability of education.

#### Level and dynamics of main indicators for quality and transition from education to work

The share of Bulgarian pupils with *results below the critical level* on the PISA<sup>58</sup> scale in the field of reading, mathematics and science is 39.4, 43.8 and 36.9%, respectively (2012). The average EU 28 values are 17.8, 22.1 и 16.6%, respectively. The goal of the European Strategic Framework “Education and Training 2020” is these shares to be below 15%. The comparison with preceding studies in 2006 and 2009 highlights a favourable tendency – the share of these students gradually decreases (for example, in the field of reading it decreases from 51.1 to 41% and then to 39.4%); however, the country still ranks last in the EU and is far from fulfilment of the strategic objective. The PISA data also show that the socio-economic environment (including family welfare), the professional and educational status of the parents, and the educational environment *affect the results* of the students.

As underlined in the National strategy for literacy promotion and increase (2014-2020), the conclusions from the international assessments are supported by the annual external evaluations, conducted at the end of grades 4 and 7, as well as by the state matriculation exams in Bulgarian language and literature. According to the national external assessment of the subject Bulgarian language and literature after 4 grade, there is a tendency towards decrease of the level of fulfilment of state educational requirements (for the period 2007-2014). Many of the pupils have serious difficulties in reading and writing, while 5.38% of the participants in the assessment, conducted during the 2012/2013 school year, have not met the criteria for passing the dictation, i.e. they cannot write under dictation and are not sufficiently literate.<sup>59</sup>

According to the only *ranking of national higher education systems* in the world – Universitas 21 Ranking<sup>60</sup>, from 31<sup>st</sup> place in 2012 Bulgarian higher education drops to 40<sup>th</sup> place in 2014 among

<sup>55</sup> For example, PISA and the ranking of higher education systems: Universitas 21 Ranking.

<sup>56</sup> Such are the annual national external assessments, conducted at the end of grades 4 and 7, as well as the state matriculation exams in Bulgarian language and literature.

<sup>57</sup> The surveys conducted among teachers and lecturers (the results from which are published in Zareva, Matev, Kirova, 2014); surveys among employers, such as the one conducted by the Bulgarian Industrial Association within the framework of OPHRD (Survey of the motivation and attitudes related to professional qualification, educational level and career prospect of the labour force at company, regional and sector levels – 2011), and by the Bulgarian Chamber of Commerce and Industry (“Business and education survey”, 2013, (and comparison with 2008)), and others.

<sup>58</sup> OECD Programme for international assessment of the competences of 15-year-old students in reading, science and mathematics.

<sup>59</sup> National strategy for literacy promotion and increase (2014-2020), p. 11.

<sup>60</sup> The ranking is produced by the global network of universities Universitas 21 and the University of Melbourne and includes the first 50 countries from the US National Science Foundation’s rankings of higher education in the world.

the 50 ranked countries. The results from the mentioned survey among lecturers at universities in the country show that nearly 1/3 of them (31.3%) give a negative assessment of the quality of higher education, while 49% of the respondents believe that Bulgarian universities are not competitive to the European ones.<sup>61</sup>

One of the main factors, which contribute to the quality of education, is the *qualification of teachers*. The participation of the pedagogical staff in a short-term training is at a low level (below 10%). For the period 2007-2012, on average per annum a mere 1.2% of all pedagogical staff have participated in a long-term training, which is considered extremely insufficient.<sup>62</sup>

According to employers<sup>63</sup>, the number of jobs, which require a higher educational level, increases, but they face difficulties in finding the needed personnel. In their opinion, *some of the main reasons* for that are: non-compliance of the educational standards and the content of educational programmes with the needs of business; formal conducting of internships and training practices; low quality of vocational and higher education. There are problems with both the theoretical and the practical training. The most significant deficiencies include lack of professional skills, insufficient knowledge of foreign languages, lack of entrepreneurial and managerial skills, etc. The negative assessment of the preparation and qualification of youths is more prevalent in 2013 compared to 2008.

The majority of university lecturers in the country (57%)<sup>64</sup> consider the *degree of correspondence* between educational preparation and necessities of the labour market low, not a small part of respondents (15%) believes that there is no correspondence at all.

*The share of persons aged 30-34 with completed higher education*, an indicator measuring the level of fulfilment of one of the main objectives of the "Europe 2020" Strategy, is 29.4% in 2013 (25.3% in 2006), while the EU-28 average is 36.9%. It should be mentioned that Bulgaria is the only country in the EU, in which the share of these persons decreases in the period 2009-2012, while in 2013 it increases by 2.5 percentage points. Despite this increase, the country lags behind significantly from both the European and the national goals in this field.

*The problems with the quality and the practical applicability of education are reflected in the low employment rate of youths aged 20-34, who have completed higher or secondary education, and have started work 1-3 years before the reference year, and do not participate in education or training. In 2013, the level of this indicator for Bulgaria is 67.7% (EU-28 average is 75.5%), while the objective of the European Strategic Framework "Education and Training 2020" is at least 82%. After 2007, the rate decreases significantly until 2011 – from 72.3 to 59.2%. This is largely a result of the impact of the economic crisis in the country. During the last two years, the values of the indicator stay around 67%. The unemployment rate of this group of youngsters remains at the level of 19-20% during the last few years, while in 2007 it was 10.4% (a percentage higher than the European average by 2.2 percentage points in 2013).*

*The level of achievement of the key indicators shows more considerable results in the field of the access and participation in education of the population (decrease in the share of early school leavers). Despite the positive changes, there are significant*

---

<sup>61</sup> In the preceding study from 2007/2008 this percentage was significantly lower (35.9%).

<sup>62</sup> Data and assessments are presented in the National strategy for development of the pedagogical staff (2014-2020).

<sup>63</sup> According to surveys, like the ones mentioned above, conducted by the Bulgarian Industrial Association and the Bulgarian Chamber of Commerce & Industry.

<sup>64</sup> See the mentioned survey among lecturers. A decrease, though slight, is registered with regard to the assessment of the academic staff in comparison to the preceding study in 2008.

*problems, the overcoming of which requires continuity and sustainability of the activities and policies in this direction. In the areas of the quality of education and the participation in lifelong learning, there is a significant lagging behind with regard to the achievement of the objectives.*

#### Quantitative parameters of the results from the implemented policies

As of the end of 2013, the number of persons, participated in the schemes under priority axis 4 of the OPHRD, is largest (in 2008-2013 it is 69 900, 161 300, 109 900, 30 200, 201 400, and 533 700 persons, respectively for each of the years). The number of participants in the schemes under priority axis 3 is considerably smaller (respectively 3700, 9600, 16 400, 103 890, and 53 300 persons). This significant difference is determined, to a great extent, by the specificity of the activities in the different areas of intervention (particularly in the case of area 4.2) and by the fact that the majority of the participants are included in schemes, targeted at pupils from the entire country.

Regarding the achievement of the target values for *priority axis 3*, it should be pointed out that of totally 13 target indicators 3 have been achieved or even considerably surpassed in value (more than 100% of the target value). These are the indicators for: number of persons included in training programmes for internal and external assessment; number of doctoral, post-doctoral and post-graduate students and young researchers, who have participated in programmes for development of scientific potential; and who have completed such programmes. They concern some of the policies, aimed at modernisation of the education and training system and at strengthening the links between the education and training institutions, R&D sector and business.

The level of achievement of the other indicators is around 30%. These are policies aiming to improve the quality of services in education and training (including improvement of the qualification of the pedagogical staff and introduction of new curricula and syllabi<sup>65</sup>) and to strengthen the links between the educational and training institutions, R&D sector and business (i.e. improvement of the quality and practical applicability of education and training), including participation in pupils and students practical training. It should be pointed out that while the schemes related to the introduction of new curricula and syllabi started only in 2012, which to a certain extent explains the lagging behind of the achievement of the target values, the schemes for inclusion in pupils and students practices started in 2008, and the ones for improvement of the qualification of the pedagogical staff – in 2009.

Regarding the characteristics of the participants under priority axis 3, there is a continuous tendency towards a decrease of the share of persons from disadvantaged groups. In 2008 one in five participants belonged to such a group, while in 2009 this

---

<sup>65</sup> The progress achieved with regard to this indicator is largely attained within the framework of the scheme BG051PO001-3.1.06 "Improvement of the quality of education in "consolidated" schools through introduction of full-day organisation of the school process".

share decreases to just above 5%, and in 2013 a mere 420 persons from more than 50 000 participants have identified themselves as belonging to disadvantaged groups.

Regarding *priority axis 4*, out of a total of 16 indicators 6 have been achieved or even significantly surpassed in value (more than 100% of the target value). Considerable surpassing of the target values is registered for the indicators: number of students participating in mechanisms for student aid (for example, credits, new or supplementary scholarships), number of students receiving scholarships, number of schools offering extracurricular activities, and number of students participating in out-of-school activities.<sup>66</sup> The other indicators, for which the target values have been surpassed, are: number of persons participating in measures for prevention of early school leaving and number of dropouts re-integrated into the educational system. The implementation of the schemes in these areas started in 2008, while the reintegration of nearly all dropouts was realised in 2013 within the framework of the scheme BG051PO001-4.1.05 "Educational integration of children and students from ethnic minorities".

It should be pointed out that despite the significant surpassing of the target values, according to NSI data for the period 2008/2009 – 2012/2013 school years, there is no change in the value of the share of dropouts from basic education, though an improvement is observed in the lower secondary education. These data suggest that the implementation of the schemes *has rather had a compensatory effect*, i.e. their implementation has likely compensated for a larger percentage of the dropouts from basic education and has not led to a decrease of this percentage. Regional disparities also persist. The effect is more clearly seen in the case of lower secondary education. There is a significant improvement as it concerns the decrease in the share of early school leavers from education and training (aged 18-24), where the achieved result is better than the goal for 2013.

These changes are indicative of the achieved results from the implementation of the schemes within the framework of this axis of the Operational Programme. At the same time, they show the substantial problems, intensified under the influence of the economic crisis in the country (increasing the weight of the economic reasons for dropping out of school), and highlight the need for further efforts, for expansion and diversification of the measures and the target groups of vulnerable children.

Analogical conclusions can be drawn on the basis of the observed changes in the share of persons aged 30-34 with completed higher education (its increase is one of the European strategic objectives). With the implementation of the schemes for student aid provision (credits, scholarships), in the period 2009-2012 the share of youths from this age group with completed higher education decreases. In 2013 a significant increase is registered in the share of persons with higher education, as well as in the share of students participating in mechanisms for student aid provision and in the number of students receiving a scholarship. It could be suggested that the results from the implementation of the schemes of the Operational Programme contribute to this change

---

<sup>66</sup> A specificity of all the activities from area of intervention 4.2. "Children and youths in education and society" is that participation of the same educational institution in different phases of a given scheme is allowed, and registration of the persons in these institutions several times does not constitute a violation.

(especially in view of the worsened socio-economic conditions in the country as a result of the crisis). The lagging behind with regard to the achievement of the strategic goal, however, is considerable and the efforts in this direction should continue.

There is lagging behind with regard to the achievement of the target values for integration of children with special educational needs, participation in programmes for professional orientation and career development<sup>67</sup>, participation in programmes for distance learning and improvement of adult literacy. The implementation of the schemes in these areas started at a later stage (2011-2013) and the expectations are that the lagging behind will be partially compensated in 2014.

Regarding the characteristics of the participants within the framework of priority axis 4, it should be pointed out that the relative share of persons from vulnerable groups varies around 10% in recent years, while at the beginning nearly one in four participants belonged to such groups and, predominately, to ethnic minorities.

The large and non-decreasing share of children who drop out of school for family reasons, as well as the decreasing percentage of those who drop out due to unwillingness to learn, indicate the possible effect from the implementation of the schemes of the programme and the directions, in which more efforts need to be concentrated – expanding the target groups of vulnerable children and diversifying the measures and activities for prevention and re-integration of children in school.

The indicated contribution of the schemes to the access to education is supported by the conducted surveys<sup>68</sup> among beneficiaries and parents of children, who have participated in projects within the framework of the programme, which demonstrate a comparatively high level of satisfaction with the implementation and the participation in projects and positive assessment of the results from them. *The situation is quite different when it comes to the long-term sustainability of the achieved results. The implemented activities are short-term and require continuous financing.*

Despite the lagging behind with regard to the achievement of the objectives related to quality of education, the effects from the activities, conducted within the framework of the schemes, receive a positive assessment from the participants.<sup>69</sup> The surveys, conducted among participants in the schemes for pupil and student practices and for student scholarship provision, indicate a high level of satisfaction with the participation, the concrete benefits and the sustainability of the activities – the respondents anticipate a long-term impact for a better career and professional development.

*As a whole, with regard to the achievement of the target values in the field of education and training, a lagging behind is observed in: training and improving the qualification of the pedagogical staff, introduction of new curricula and syllabi, participation in school*

---

<sup>67</sup> There is no scheme that encompasses professional orientation and career development for students, and for the pupils – there is only one from 2013.

<sup>68</sup> Summary of the final report on the assessment of the achievement of the strategic and specific objectives of the OPHRD for the period 2007-2010.

<sup>69</sup> Ibid.

*and university practices (and their completion), participation in programmes for professional orientation and career development, participation in programmes for distance learning and for improving adult literacy (lifelong learning). The implementation of such activities of a long-term nature could strongly and positively influence the increase of the quality and practical applicability of education and training. These are areas, characterised by the existence of significant problems, in which Bulgaria lags behind significantly in comparison to both the strategic European objectives and the national ones. The need to concentrate more efforts in those areas and to expand the scope and diversity of the measures and the encompassed vulnerable groups, at which some of these measure are aimed, would have to be taken into consideration with the implementation of the new OPSESG in order to attain sustainability of the achieved results.*

### *3.3. Summaries and Recommendations for Amendment of the Implemented Policies for Human Capital Improvement*

It could be generalised that:

- From the standpoint of the improvement of human capital as a source of growth, the implemented policies are adequate, sustainable and with a long-term perspective. The allocation of resources from the ESF through the OPHRD to this area is a correct approach, especially during a period of economic crisis.<sup>70</sup>
- The actual more intensive activities for the practical realisation of these policies in the country are belated, evidenced by the fact that a series of important strategic documents in the field of education, related to its quality and accessibility, were approved only in 2013 and 2014.
- The objectives of the OPHRD within the framework of priority axes 3 and 4 are partially achieved – to a higher extent those in the area of access to education and reduction of the number of early school leavers, and to a lesser extent those related to quality of education and training and participation in lifelong learning. The lack of experience, skills and institutional capacity, which is reflected by the belated initiation of many of the schemes (some of which at the end of the period), likely contributes to the resulting non-fulfilment of the objectives.
- More favourable values than the envisaged target indicators have been achieved for the share of early school leavers (aged 18-24) and the share of persons with completed at least secondary education (aged 20-24). Significant lagging behind has been registered with regard to the participation in lifelong learning (for the age group 25-64), share of youths (aged 30-34) with higher education, share of pupils with

---

<sup>70</sup> As it is highlighted in the Communiqué from the meeting of the ministers, responsible for higher education, in Bucharest “Making the Most of Our Potential: Consolidating the European Higher Education Area”, 2012: “Higher education should be at the heart of our efforts to overcome the crisis – now more than ever. With this in mind, we commit to securing the highest possible level of public funding for higher education and drawing on other appropriate sources, as an investment in our future.”

results below the critical level in the field of reading, mathematics and science, participation of pedagogical staff in training, and others. The improvement of the participation of children and youths in education, given the significant problems with the quality of education and training, the insignificant participation in lifelong learning and the considerable impact of the crisis on the labour market, condition the relatively low level of participation of young people (aged 20-34) with secondary or higher education in the labour market – the employment rate is comparatively low and the unemployment rate is high.

Recommendations:

1. It is necessary to identify the problems and factors, which have led to the lagging behind in the implementation of the measures and activities for improvement of the quality of educational services and the development of the system for lifelong learning. These are areas, on which the improvement of human capital is largely dependent. The efforts should be focused on the achievement of these goals, particularly with the implementation of the new OPSESG.
2. The improvement of the access to education should be carried out in parallel with the increase of the quality of education, not at the expense of it. The reported smaller number of early school leavers and higher share of persons with completed secondary education, in the absence of indicators for apparent improvement of the quality of the education, cannot lead to improvement of human capital if people are not adequately and qualitatively educated. Along these lines, improvement of the criteria and enhancement of the level of objectivity of the control and assessment of the quality of educational services would have a positive effect.
3. Expanding the scope and diversity of the measures would be beneficial to the realisation of the objectives for both increasing the quality of education and training and improving the access to and participation in education. It is necessary to expand the scope of the target disadvantaged groups and to take into consideration the existing regional disparities. For example, many of the measures are aimed at mainly at ethnic minority groups and to a smaller extent at persons with special educational needs and other vulnerable groups. It is true that among them the share of illiterate persons and individuals with lower education is higher. However, as the strategic documents state, the main reasons for dropping out of school are economic and social, and they also concern other groups of children. Extracurricular and out-of-school educational activities are a feasible measure for inclusion of children in school, particularly those at risk of dropping out, as well as the parents. However, the data indicate that the main reasons for dropping out of school are family-related, predominately lack of financial resources and poverty. Lack of motivation for participation in education follows in the list.<sup>71</sup> The measures, targeted at this largest group of children at risk, should be developed in the new OPSESG.

---

<sup>71</sup> The international survey PISA finds that there is a significant relation between the low educational results of children at school and the socio-economic status of their families in Bulgaria: on average in Bulgaria 32% of the fluctuations in the results of 15-year old pupils are explained by the socio-economic and family environment. This share is around 22% in the OECD countries (Strategy for preventing and reducing the share of dropouts and early school leavers (2013-2020), p.7). According to the ADMIN system data, the most common reason for dropping out of school is social and family related - low income, unemployment, lowering living standards. Nonattendance in school is the second most important reason for dropping out of school,

4. Not a small part of the executed activities (particularly those concerning access to education and decrease of the number of early school leavers) are short-term and require continuous financing. Many of the activities in the fields of improvement of the quality of educational and training services and development of lifelong learning, the implementation of which currently lags behind, are expected to have a long-term impact and effects on the improvement of human capital, the career and professional development of the participants.
5. In some cases, the results from the implemented policies can be multi-directional. For example, the optimisation and restructuring of the network of educational institutions (the aim of which is to utilise the limited resources for education in a more rational way) can lead to restrictions of the access to education (there is such an effect according to data from the World Bank). In such case, it is possible to give priority to one or another policy, taking into account the long-term objectives for improving human capital.
6. The improvement of the control over the quality of the executed project activities and their result (product) is an important condition for increasing effectiveness and efficiency of the implemented schemes. Since it is difficult to assess the extent, to which the changes in the values of the target indicators result from the activities, implemented within the framework of the schemes of the programme, the activities related to the assessment of the effects, including the long-term ones, on the improvement of the human capital of the country, as a factor of growth, should be expanded.

The improvement of human capital and the increase of investments therein are of essential significance for achieving a smart, sustainable and inclusive growth and for establishing a knowledge-based economy. The investments in human capital should not be aimed solely at meeting the current and short-term necessities of the market, but also at the long-term economic and societal needs. Education is a long-term process and in order to achieve the desired effect from the policies and measures, they should not be implemented once or over a select period of time; they need to have systematic and sustainable nature. The effects from them sometimes manifest themselves after several years.

---

caused by negative attitudes towards learning and lack of motivation. Difficulties in learning the material and understanding of content in education as well as the lack of accompanying measures to overcome this problem lead to poor grades. This is the third most frequently cited reason for discontinuation of education. (National Development Programme: "Bulgaria 2020", p. 212 in Bulgarian; p. 215 in English).

#### **4. Policies for Promoting Research and Innovation within the Framework of the Operational Programme “Development of the Competitiveness of the Bulgarian Economy”**

The formulation and implementation of national policies for promoting research and innovations is an important factor for increasing the competitiveness of the economy. Their goals, scope, financial security and mechanisms for implementation have a significant impact over the economic development of the country.

##### *4.1. Objective, Scope, Consistency and Sustainability of the Policies*

The national policy for promoting innovations and R&D is determined by the National Development Programme: Bulgaria 2020 (NDP BG 2020), which is the main strategic programming document defining the objectives of the policies for socio-economic development of the Republic of Bulgaria until 2020. Therein, the national policy for encouraging innovations and R&D is linked to the achievement of strategic objective 3: Increasing the competitiveness of the economy by ensuring a favourable business environment, encouraging investments, implementing innovative solutions and increasing resource efficiency. The National Reform Programme (NRP) formulates the following objectives of the policy for encouraging innovations and R&D: “Investments in R&D to the amount of 1.5% of GDP, stimulating R&D and innovation activity of the enterprises (in compliance with the flagship initiative “Innovation Union”) and “Achieving a 16% share of renewable energy sources in gross final energy consumption and increasing energy efficiency by 25% by 2020 (in compliance with the flagship initiative “Resource Efficient Europe”)”.

The main instruments for implementation of the policy for encouraging innovations and R&D are the state budget and the Operational Programme “Development of the Competitiveness of the Bulgarian Economy” (OPDCBE). The European co-financing from the ESF and EFRD is of decisive importance for this programme. *The goal* of the utilization of the instrument OPDCBE is to develop a competitive and efficient production and business potential, to contribute to increase the economic effect and to assist the necessary structural changes in economy with a view to achieve a sustainable progress and feasible cohesion during the programme period. The results from the financed innovations and R&D are expected to “support the development of the productivity of small and medium-sized enterprises, assist the development of innovations and new technologies and improve the business environment”. Furthermore, “the operational programme will also contribute to the achievement of the general EU horizontal objectives, namely environment protection, equal opportunities and development of the information society”.<sup>72</sup>

---

<sup>72</sup> Operational Programme “Development of the Competitiveness of the Bulgarian Economy”, p. 7-8.

The objective of the policy for encouraging innovations and R&D is development of a dynamic knowledge-based economy, which is efficient and competitive on the European and international market. This policy encompasses the following dimensions (Priority axes):

- development of a knowledge-based economy and innovation activities;
- increasing the efficiency of enterprises and promoting supportive business environment;
- financial resources for developing enterprises;
- strengthening the international market positions of the Bulgarian economy;
- technical assistance.

More specifically, *Priority axis 1* “Development of a knowledge-based economy and innovation activities” is “focused on assisting the development of R&D activities for and by enterprises, aiming at strengthening their innovation potential and establishing a suitable pro-innovative business infrastructure, which shall strengthen the science-business relationship”.<sup>73</sup>

*Priority axis 2* “Increasing the efficiency of enterprises and promoting a supportive business environment” focuses on supporting micro, small and medium-sized enterprises with a development potential, modernisation of technologies and quality management, as well as improvement of the consultancy and information services offered to the business, and improvement of energy efficiency of enterprises and encouraging business cooperation and networking.

*Priority axis 3* “Financial resources for developing enterprises” aims at improving the access to development capital for enterprises.

*Priority axis 4* “Strengthening the international market positions of Bulgarian economy” aims to support the promotion of FDI, improve the export potential of the national economy, and provide support for the national quality infrastructure.

*Priority axis 5* is for technical assistance to the management of the programme.

The research and innovation policy for the period 2008-2013 is subject to further development during the next programming period 2014-2020. For example, its scope is further extended by the implementation of the following two documents – Operational Programme “Innovation and Competitiveness” (OPIC), coordinated by the Ministry of Economy, and Operational Programme “Science and Education for Smart Growth” (OPSESG) 2014-2020, coordinated by the Ministry of Science and Education. The goals and priorities of the two operational programmes are embedded in the draft of the “National strategy for smart specialization of the Republic of Bulgaria until 2020” from December 2014. The policies are consistent, since OPIC 2014-2020 continues and

---

<sup>73</sup> Ibid, p. 8.

further develops the policies, in which the business expressed interest during the period 2007-2013, as well as the ones, which have proven to be efficient.

As a whole, the national policy for encouraging research and innovations is characterized by consistency and sustainability during the past and present programming period. The scope of the policy widens. However, the priority areas for scientific research, as well as the sectoral, technological and product innovations, are not defined clearly enough. This policy envisions considerably limited financial instruments for its realization, which further decreases the otherwise limited opportunities for achieving a smart growth. It could not contribute to a sufficient extent to the development of the potential for competitive and efficient business and manufacturing and to increasing the economic effect and support the necessary structural changes with the aim of achieving sustainable progress and acceptable levels of cohesion in the end of the programming period.

#### *4.2. Financial Resources for Implementation of the Policies*

The policy for increasing the competitiveness through innovations and R&D has a high priority. The budget, allocated for the purposes of implementation of the policies, embedded in the OPDCBE, is the second largest amongst the functioning Operational Programmes during the first programming period. This budget amounts to 1162 million EUR. European resources comprise the largest share (85%) of that budget (table 9).

Table 9

Implementation of the OPDCBE as of 31.12.2014

Total and by Priority policies/axes	Total, including	Co-financing from ESF and EFRD	National co-financing	Paid resources as of 31.12.2014
OPDCBE (million EUR)	1162	987.8	174	909.3

Source: Annual report on the implementation of the OPDCBE 2007-2013-2014, <http://www.eufunds.bg/bg/page/987>

The efficiency of the implemented policies for encouraging R&D and innovations can be evaluated on the basis of the percentage of the contracted and absorbed resources in the total amount of envisioned financial resources. According to official data, as of 31.12.2014 the contracted resources are to the amount of 1198 million EUR. This comprises 103% implementation of the envisioned amount. As of the same date, the paid resources amount to 909 300 EUR, which comprises 78% of the contracted amount. The instalments received from the EC (share of the EU) as of 31.12.2014 amount to 799 300 EUR or 81% realization of the financing of the programme from the EU budget. This constitutes a sound level of absorption of European resources, which approaches the one registered by the OPHRD. The total amount of resources, which need to be certified by the end of 2015 (solely the European share of the financing) for the OPDCBE, is 283 800 EUR. The high percentage of contracted and actually paid resources indicates efficiency of the conducted policy from the standpoint of the planned financial provision, as well as of the opportunities for overall absorption of the planned resources for the programme.

The prioritization of the policy for encouraging innovations and R&D is reflected by the distribution of the resources by Priority axes, as well as by the paid resources. At this stage, this assessment can be made on the basis of data from 31.12.2013 (table 10).

Table 10

Implementation of OPDCBE by Priorities as of 31.12.2013

Total and by priority policies/axes	Total, including (million EUR)	Percentage distribution	Paid resources as of 31.12.2013 (million EUR)	Percentage of implementation as of 31.12.2013
OPDCBE total, including:	1162.2	100.0	636	55
Development of a knowledge-based economy and innovation activities (PA 1)	210.6	18.1	26	12
Increasing efficiency of enterprises and promoting a supportive business environment (PA 2)	529.0	45.6	243	46
Financial resources for developing enterprises (PA 3)	350.0	30.1	349	99
Strengthening of the international market positions of the Bulgarian economy (PA 4)	37.7	3.2	10	27
Technical assistance (PA 5)	34.9	3.0	8	24

Source: Own calculations based on the Annual report of the implementation of OPDCBE 2007-2013 – 2014, p. 12, <http://www.eufunds.bg/bg/page/987>.

Increasing the efficiency of enterprises, technological modernization and development of a supportive business environment are priorities in the policy for encouraging innovations and R&D. 529 million EUR have been allocated for that purpose, which comprises nearly 1/2 of the total resources. The improvement of the access of enterprises to capital ranks second with nearly 1/3 of the total envisioned resources. The policy for development of R&D for and by enterprises with the aim of strengthening their innovation potential and establishing a suitable pro-innovative business infrastructure, which shall strengthen the science-business relationship, ranks third with nearly 1/5 of the total financing. Comparatively limited resources have been allocated for the purposes of the strengthening the international market positions of the Bulgarian economy.

The share of absorbed resources in the total amount of envisioned resources for the programme (80.8%) indicates a high level of utilization in comparison to the other Operational Programmes. By that indicator, the OPDCBE ranks second, after the OPHRD. It should, however, be pointed out that there are significant differences in the levels of implementation of the different Priority axes of the policies – ranging from 12 to 99%.

The most significant progress is registered by the policies, related to the provision of financial resources for development of enterprises (PA 3), in which case 99.72% from the total budget for the axis are certified, given a total absorption of the resources for the programme of 54.7%. This progress has been registered since 2012 and is linked to the fact that the indicators for tying the amount of allocated resources with financing of the modernization of enterprises are no longer applied. The policies aimed at increasing the efficiency of enterprises, technological modernization and promoting a supportive

business environment (PA 2) rank second. Here the share of certified resources is 46%. There is considerable lagging behind in the implementation of the policies for development of a knowledge-based economy and innovation activities (PA 1). In this case, a mere 12.36% of the resources have been absorbed. This low percentage of actual absorption of the resources is also due to the fact that the larger share of the contracts for implementation of the policies under this Priority axis are signed in 2013 and their actual realization will be completed in 2014 and 2015. As of 2014, 131% have been contracted. This is why it can be anticipated that the effects will manifest in the end of the programming period. The lagging behind with regard to the absorption of resources for Priority axes 1 and 2 is due to a series of factors. The main one amongst them is that, despite the fact that the allocated resources are grant financing, the need to directly link the projects with an actual economic effect is, to a large extent, an insurmountable barrier. The fact that by definition the beneficiaries are specific and the contracts are large-scale with diverse project activities, which require a lot of time for organization, further contributes to the delay in the absorption of the grant financing for Priority axes 4 and 5.

The efficiency of the conducted policy for encouraging innovation and R&D is further determined by the extent, to which the achieved results comply with the formulated objectives and respectively with the policy for economic development of the country.

#### *4.3. Assessment of the Impact of the Conducted Policies as a Factor of Growth (Micro- and Macro Level)*

At the micro level the impact of the policies, implemented via OPDCBE, on economic growth as of the end of 2013 is assessed through the level of achievement of the target values for the specific policies by Priority axes; at the macro level, it is assessed through the dynamic of key macroeconomic indicators, such as labour productivity, R&D intensity, export of highly technological goods and services, energy intensity, attracted foreign investments and through the changes in the country's position in European R&D and innovation. The available assessments of demand and supply of R&D activities by statistical sources, conducted by the Economic Research Institute at the Bulgarian Academy of Sciences, as well as an assessment of the key indicators of the implementation of the OPDCBE, are used for that purpose. The assessment of the impact of the policies from the OPDCBE on the state of innovations in the Bulgarian economy and in the European area in the period 2007-2013 is conducted on the basis of data from the "European Innovation Scoreboard".

- **Policies for encouraging scientific research and innovations at micro level – achievement of the target levels by key indicators**

#### Policies under "Development of a knowledge-based economy and innovation activities" (PA 1)

The specific policies here include encouraging R&D activities and innovations in enterprises, protection of the industrial property of Bulgarian enterprises and research organizations and establishment of a favourable pro-innovative infrastructure. For the

purposes of assessment of these policies, the Annual report on the implementation of the OPDCBE 2007-2013 (published in 2014) has specified target levels of 14 indicators. From them, 7 assume a value of zero as of the end of 2013, and 5 of them have been removed by the recommendation of the Monitoring Committee of the programme, which was approved with EC Decision S (2012) 5768 from 10.08.2012, Annex 3 "List of indicators". As a result, it has been registered that as of 31.12.2012, out of a total of 9 indicators, 22% assume zero values. For the remaining indicators the values are comparatively low (ranging from 17 to 65%) in comparison to the formulated objectives (p. 34-36).

These data indicate insufficient success rate of the policy for encouraging R&D and innovations for the purposes of development of a knowledge-based economy. This is due to some weaknesses, like the lack of sufficient economic competence amongst decision-makers for determining a conception and suitable tools, capable to establish actual and efficient cooperation between the existing research centres in the country and the business sector. The inability to elaborate such a concept results in the postponement of deadlines, the specified and other changes in the methodology, aimed at increasing the absorption of the resources. For example, several indicators are no longer used, such as the number of successful projects, prepared by the hired research staff in enterprises; number of registered trademarks, designs and patents by the supported enterprises and research organizations; number of enterprises using the services of pro-innovative intermediaries (which are financed under PA 3); number of research projects, implemented with the supplied equipment for applied research; number of institutions/organizations participating in the national innovation network. On the other hand, the specific goals by Priority axes are not clearly defined and generate suspicions of overlapping, despite the fact that the initially selected indicators are, to a large extent, well-formulated and adequate from the standpoint of the declared policy.

The conducted policy for encouraging R&D and innovation activities in enterprises can be evaluated as a positive result of the programme. Although their total number is small (25, with a target of 95-130), 100% of the supported start-up innovative enterprises are active. On the other hand, the number of innovations, which are introduced/ready to be introduced on the market, is only 26 (with a target of 76-104 in 2015). It means that their impact on economic development cannot be characterized as significant. Furthermore, they are not registered as industrial property, i.e. their degree of novelty is quite low. The achieved number of R&D projects, supported at the precompetitive phase, is also unsatisfactory – for the period 2007-2013 there are 11 R&D projects (with a target of 90 in 2015). The number of R&D projects, supported at the market introduction phase (29, with a target of 30-40 in 2015), indicates a high level of fulfilment of this relatively modest goal. The analysis of this indicator needs to be accompanied by data for other indicators (for example, number of registered patents). The sound value of the indicator "number of researchers, hired by enterprises" (105, with a target of 110 in 2015) does not correspond with the lack of submitted and registered patents or successfully prepared projects by the personnel.

In practice, the policy for establishment of a pro-innovative environment is unsuccessful. Not a single centre for technological transfer, technological incubator, technological centre or other innovative intermediary has received support. Probably the lack of

supported projects for modernization of the applied research equipment in research organizations as of 2013 is linked to the lack of communication with these organizations, as well as with their lower level of activity, conditioned by the lack of demand for innovative equipment/products, manufactured with new equipment. Not a single institution or organization, which participates in the national innovation network, has been registered.

As a whole, the achieved results with regard to the development of a knowledge-based economy are unsatisfactory. The termination of the application of important indicators, related to the assessment of the improvement of the micro foundation of macroeconomic growth, provides grounds for serious scepticism about the possibilities for management of the OPDCBE in a way that would support the achievement of its objectives and contribute to economic growth.

Policies for increasing the efficiency of enterprises, modernization of technologies and establishment of a supportive business environment (PA 2)

These policies have the following specific goals – modernization of technologies, provision of easily accessible and qualitative consultancy and information services to business, decreasing energy intensity and diversification of energy sources used by enterprises, increasing efficiency of production and the market representation of the enterprises by utilizing the advantages of clusters and business networks.

These policies are assessed on the basis of 12 indicators, from which 1 is renamed, 4 have been removed and 4 have been added. The same comment regarding the methodology in PA 1 applies here. The general assessment is that the share of indicators assuming zero values is high (58.33%). The signed contracts as of the end of 2013 comprise 89% of the envisioned budget for these policies, while the certified sums are to the amount of 45.9% of the budget.

The achieved number of certificates, introduced in the supported enterprises, can be characterized as a positive result of the policies, implemented within the framework of PA 2. In 2013, this number is 712, given a target of 537 in 2015 and the period as a whole. This result of the policy indicates an increase in the potential for active inclusion of Bulgarian enterprises in the global economy.

On the other hand, it is rather alarming that the average age of the technological equipment in supported enterprises registers a very small decrease. While the starting position in 2007 is 45.5% and the target in 2013 and the period as a whole is 30%, the 2012 level is 12.58%. This indicator was removed in 2012, which, in practice, brings the financing of projects out of the economic context of modernization. Given these results, it is rather strange that 508 enterprises have introduced new technologies/products (the target for 2010 is 60 enterprises and for 2015 – 550). The fact that not a single supported enterprise has used specialized consultancy services, financed by the programme, once again proves that the link “business – science” is broken, which is a major obstacle to the utilization of scientific knowledge for the purposes of modernization of the technologies and management of the enterprises.

On the other hand, the assessment of the implementation of the policies under this axis indicates a contradiction when comparing the analysed indicators. Such example is the implementation of specific policies aimed at increasing the production capacity of the supported enterprises – while the goal for the period is 15%, the average increase registered in 2012 is 80%. This indicator was removed in 2012, mainly because it is impossible to explain how the production capacity has increased, given that the data for the purchase of equipment and for the projects, implemented with it, assume zero values (see Priority 1, indicators 12 and 13).

It can be concluded that the implementation of the policies for encouraging innovations under PA 2 does not yet create a basis for increasing the efficiency of the enterprises, technological modernization and establishment of a favourable business environment. The removal of important indicators limits the possibilities for integral and encompassing understanding of the on-going processes. The low level of implementation of the policies indicates problems with the formulation of the goals and the elaboration of the mechanisms for their realization.

#### Policies for ensuring financial resources for developing enterprises (PA 3)

For the purpose of implementing these policies within the framework of the Operational Program “Competitiveness”, the Ministry of Economy (ME) has determined a budget under Priority axis 3 for implementation of the JEREMIE initiative, whose main objective is improvement of the access of small and medium-sized enterprises to funding via the utilization of various financial engineering instruments. In Bulgaria, the JEREMIE Holding Fund (JHF) is financed along the lines of Operational Programme “Development of the Competitiveness of the Bulgarian Economy” 2007-2013 from the European Fund for Regional Development and from the stage budget. JEREMIE is a fund of central importance and as such targets financial intermediaries and not directly the small and medium-sized enterprises. The JEREMIE Holding Fund ensures provision of the following: focused SME financial instruments, including guarantees, joint guarantees and counter-guarantees, equity guarantees, (micro) loans, securitization, venture capital, and investments in technologies, which transfer the resources to financial intermediaries. These financial intermediaries consequently provide SMEs (which are “final beneficiaries”) with loans and capital instruments. JEREMIE does not provide any subsidies for the small and medium-sized enterprises.

The values of the indicators analysed below reflect the progress registered in 2013 with regard to the selected financial intermediaries of the financial instruments, which are in the process of implementation over the course of the accounting period: Venture Capital Fund, guarantees covering the losses of a portfolio of loans, Fund for investments in companies in the growth stage (suspended), Mezzanine Fund, tools for promoting entrepreneurship and providing initial funding and instruments for funding through risk sharing.

As a whole, from the standpoint of the absorption of the resources, the policies under PA 3 are the most successful. The main resource, which doubled in value as of the end of 2013, is generated to the provided loan instruments. The fact that the financial resources under this axis are nearly exhausted indicates a significant demand for loan

capital, and these instruments can be successfully used in the next programming period 2014-2020.

The change in the selected indicators, introduced in 2012 and presented above, in practice changes the policy under PA 3. From a policy of innovative development, it is transformed into a policy for financing of the enterprises. The possibility for direct financing of the enterprises is abolished. For example, some of the indicators are removed (percentage of enterprises, receiving loans; share of venture capital funds in the sources of financing; number of investment projects, supported by the venture capital funds; number of elaborated/developed financial instruments), while new ones are included. The results from them are impressive (7 elaborated/development financial products, with a target of 5; 5018 enterprises supported via debt products, with a target of 2000 in 2015; 73 enterprises supported by venture capital funds, with a target of 158 in 2015; 73 start-up enterprises, with a target of 195 in 2015).

It can be concluded that significant progress has been registered with regard to the absorption of the resources and the implementation of the policy, evaluated on the basis of the new indicators, introduced in 2012, which reflect the results from the activities for ensuring financial resource provision to the enterprises. On the other hand, the removal of the originally formulated indicators, which reflect the goal of the debt and other financing resources, limits the possibilities for assessment of the efficiency of the utilization of the resources from the standpoint of the fulfilment of the goal for smart growth and employment.

#### Policies for strengthening the international market positions of the Bulgarian economy (PA 4)

An important assessment of the policy for encouraging innovations and scientific research is the increase in the competitiveness of the economy and the increase in exports, particularly high-tech exports. The specific goals of the policies under PA 4 are linked to the increase in the amount of the attracted investments and the economic effect from them; ensuring easy access of Bulgarian enterprises to external markets via integral services for enterprises and up-to-date information on exports; ensuring compliance of Bulgarian projects with international quality standards.

According to the utilized methodology, the results from the implementation of these activities during the period until 31.12.2013 are sound (29 investment projects have been implemented in target sectors, with a target of 15). The conducted policy for supporting innovations in exporting enterprises has resulted in 46 supported laboratories, with a target of 33. Totally 40 new and improved services for the business have been provided by the organizations from the national quality infrastructure, while the target is 77.

On the other hand, the policies conducted under this axis raise questions regarding their efficiency from the standpoint of the formulated objectives. First, as mentioned above, the indicators with an economic context have been removed in this case as well. For example, an indicator, directly related to the achievement of the goals of the programme, has been removed. It concerns the increase of the volume of exports by the supported enterprises. This indicator registers a value of zero, while the target for

2012 is 18%. Second, it should be pointed out that there are quite a few marketing-related indicators, while data regarding the results from these activities is lacking. Totally 244 inquiries by potential investors in target sectors have been registered, while the target for the period is 100. 38 187 people have used the website of the Bulgarian Small and Medium Enterprises Promotion Agency, while the target for the period is 3000. The achieved result for the indicator “number of enterprises, participating in promotional projects in Bulgaria” is 351 (as of the end of 2013), while the target is 200. For another indicator – “number of enterprises, participating in promotional projects abroad” – the target value is 900, while the achieved result is 951. The target in 2013 for the indicator “number of promotional events for encouraging compliance, certification and quality of the products” is 71, while the achieved result is 37.

As a result of these achievements, it is anticipated that: the size of the attracted investments and the economic effect from them would increase; the access of Bulgarian enterprises to external markets would be improved via the provision of integral services and up-to-date export information to the enterprises; the compliance of Bulgarian products with international quality standards would be ensured. The positive effect can be anticipated to manifest in the future.

- **Impact of the conducted policy on macroeconomic development – dynamic of the main macroeconomic parameters (targeted efforts, feasible levels, actual results)**

The implementation of the programme is characterized also by the progress made with regard to the achievement of the objectives, which have specific quantitative dimensions. The general assessment of the implementation of the policies, embedded in the programme, is conducted on the basis of a comparison between the levels of pre-determined macroeconomic indicators, registered in the beginning and the end of the programming period. The assessment of the achieved results is based on data from Eurostat as of 19.01.2015 (table 11).

Table 11

Indicators for Achievement of the OPDCBE Goals

Indicators		2007	2008	2009	2010	2011	2012	2013	2015	Total
1. GDP per capita in PPP (EU-27=100) (%)	Achieved result	40	43	44	44	42.2	45	44.7		44.7**
	Target							51.2	52.0	52.0*
	Starting point	32.1*								
2. R&D expenditures (% of GDP)	Achieved result	0.5	0.5	0.5	0.6	0.57	0.62	0.65***		0.62
	Target							1.15	1.2	1.2
	Starting point	0.51								
3. Export/GDP (%)	Achieved result	59.5	58.2	47.5	57.4	66.5	66.7	68.4		68.4
	Target							89.77	91.0	91.0
	Starting point	60.8								
4. Energy intensity of the economy (kgoe per 1000 EUR)****	Achieved result	770	717	664	671	706	671			671
	Target							1250	1150	1150
	Starting point	1628								
5. Foreign investments (% of GDP)	Achieved result	29.4	19	7	3.2	3.4	3.7			3.7
	Target							32.8	34.5	34.5
	Starting point	26.2								

Legend: \* EU-27=100; \*\* EU-28=100; \*\*\* forecast data; \*\*\*\* ratio of gross domestic energy consumption (in kilograms of oil equivalent) to GDP (at constant 2005 prices in EUR).

Source: Data from the Annual report on the implementation of the OPDCBE for 2013 and data from the website of Eurostat, visited on January 19, 2015.

The data from the table indicate that the state policy for encouraging innovations and scientific research is partially successful, but the formulated objectives are not met. Worsening of the values is registered for some indicators, which can be explained by the lack of a systemic approach towards the management and the applied methodology for assessment of the results, as well as by the impact of the crisis.

At macroeconomic level, the efficiency of the policy for encouraging innovation and R&D is characterized by an increase in the productivity level, calculated as GDP per capita in PPP, in comparison to the European average (EU-28 = 100). During the programme period, this level increases from 32.1% of the average for the European states in 2007 to 45% in 2013, while the target is 51.2% (for EU-27 = 100).

A more in-depth analysis, however, indicates that the increase of labour productivity during this period is not due to the advancements from the introduction of innovations, but to other factors. According to data from the European Statistical Office, presented in the report "Sustainable Development in the European Union" in 2013, the labour productivity in Bulgaria registers one of the highest rates of increase in the years immediately following the onset of the crisis (2010 and 2011). The main reason for that is that employers lay off workers and a smaller number of employees perform the same amount of labour. This tendency is also evidenced in Europe. After that, the level of labour productivity decreases at a rate comparable to the EU average. According to Eurostat, there are two possible reasons for that. The first possibility is that economic uncertainties delayed investments. These investments, on the other hand, are the main prerequisite for technological innovations. The delayed investments in modernization of the equipment and technologies lead to a decrease of labour productivity. The other possible reason is that ordinarily the business needs time to adjust to the recession and to commence the laying off of workers. The orders/contracts, however, decrease in number and the employees perform less labour, which in practice constitutes lower labour productivity.

The state and dynamics of the policies for encouraging innovations and R&D are assessed via the respective intensity (R&D expenditures as % of GDP). This is the main indicator of the efforts of the state to focus on smart growth through the development of a knowledge-based economy. The data indicate that in reality no progress has been made to that effect. Given a target of 1.15% in 2013 and 1.2% in 2015, the actual R&D intensity is 0.62% in 2012 and 0.65% in 2013 according to forecast data. R&D intensity remains consistent over a long period of time. It comprises 0.57% of GDP in 1999, 0.49% in 2004, 0.53% in 2009, 0.6% in 2010 and 0.57% in 2011. This level is around 4 times lower in comparison to the average for the EU-27, where the average level in 2011 is 2.03%. These levels indicate that Bulgaria is one of the countries with most rarely use of the results of scientific research for the purposes of fostering economic growth and development. According to the summary innovation index of the EU, Bulgaria is amongst the weakest innovators.

The policy for encouraging innovations and R&D does not contribute significantly to the expansion of external markets for Bulgarian goods and services. The progress to that effect is more than modest. As of 2013 the achieved level of the indicator "export of goods and services/GDP" is 68.4%, while the target is 89.77%. The progress from the

starting point (60.8%) to the final target in 2015 (91%) is not significant. This is mainly due to the low R&D intensity, which also conditions low productivity and respectively low level of competitiveness, followed by shrinking of external markets as a result of the global economic crisis.

A positive assessment of the policy for innovative development is linked to the decrease in the energy intensity of the economy. Hence, the OPDCBE uses the indicator “kgoe per 1000 EUR”, i.e. the ratio of gross domestic energy consumption in kilograms of oil equivalent to GDP at constant prices from 2005. Given the target of 1150 in 2015, the actual 2012 level is 671.3, while the starting point is 1628.16. In reality, the dynamic of the indicator is not particularly significant, since in 2007 the registered value was 770.31.

An important aspect of the policy of modernization of the economy is the attraction of foreign direct investments as a channel for transfer of knowledge and its subsequent utilization in the country. The success rate of this policy is generally characterized by the total foreign investments as % of GDP. The starting point for this indicator is 26.2%, while the value registered in 2007 is 29.4%, and the target for 2015 is 34.5%. In practice, this indicator registers a rapid decrease in 2008 and 2009 (the first years of the global economic crisis) and reaches 3.2% in 2010. In 2012, according to preliminary data, the volume of foreign investments comprises 3.7% of the GDP. In other words, the policy of modernization of the economy through the attraction of foreign investments cannot be characterized as successful.

It can be concluded that, while the Annual Report for the programme in 2013 expresses optimism that the goals of the programme can be achieved by the end of 2015, the preliminary data for 2013 and 2014 provide grounds for scepticism.

- **Assessment of the policies for encouraging R&D and innovations**

The assessment of the efficiency of the policies for encouraging R&D and innovations can be conducted in several ways. For the purposes of the current study, it is based on the changes in the state of innovations in the Bulgarian economy in comparison to the average for the European countries and on its contribution to an increase in the supply and demand for the R&D results.

Through a change in the innovation performance of the Bulgarian economy

The assessment of the efficiency of the policies for encouraging R&D and innovations on the basis of the changes in the innovation performance of the Bulgarian economy in comparison to the average for the European countries characterizes the degree of their contribution to a “catching-up strategy”.

According to the European Innovations Scoreboard in 2014 (p. 44), Bulgaria is a modest innovator. Until 2010 the state of innovations in the country, evaluated on the basis of the summary innovation index, steadily improves. After that, the tendency is reversed and a period of decrease follows. Furthermore, the level of the innovation

index for Bulgaria decreases at a faster rate in comparison to the EU-28 average (from 44% in 2011 to 33% in 2013).

This tendency is very alarming. Precisely, during the period of registered decrease of the innovation index for the country the positive impact of the policies for encouraging R&D and innovations via the OPDCBE could be expected to manifest. For all innovation indicators (except number of youngsters with secondary or higher education), Bulgaria registers values lower than the EU average. The lowest values are registered for the indicators for investments in venture capital and number of Ph.D. students from countries outside the EU. Despite, being below the average European level, several indicators of the innovation activity in the Bulgarian economy register growth (from low starting point they begin to increase).

Consequently, the conducted policy for encouraging research and innovations not only fails to contribute to “catching-up”, but in reality leads to further lagging behind in comparison to the average European level. This lagging behind cannot be excused by the crisis, since all countries were affected by it. Clearly, the reason should be sought elsewhere – in the conception, the policy, the instruments and mechanisms for its implementation.

#### Through changes in the supply and demand for R&D conducted in the country

National expenditures for R&D remain consistently low over a long period of time (0.57% in 1999, 0.49% in 2004, 0.53% in 2009, 0.6% in 2010, and 0.57% in 2011). This level is around 4 times lower than the EU-27 average (2.03% in 2011). The country is characterized by a decreasing level of the innovation index in comparison to the European average and is amongst the weakest innovators. Besides Europe, the country ranks low in international standings as well. According to a report of the World Bank on global competitiveness, Bulgaria lags behind in numerous aspects, which relate to innovations. Out of a total of 144 monitored countries, it ranks 125 with regard to the level of technology absorption in enterprises and 117 with regard to the cooperation between universities and industry for the purposes of carrying out R&D activities.

Scientific research in the country is insufficient in volume, while its structure and priorities are not directly linked to the priorities for development of particular technologies, industries, end products and services. The innovation potential is insufficient, while the R&D potential is extremely low. In 2011 R&D personnel comprises around 0.51% of the employed in full-time equivalent (FTE). This level is 2 times lower than the EU-27 average. In this aspect the policy for restructuring with the aim of decreasing the number of R&D employees in the public sector is inadequate from the standpoint of the goal for achieving smart growth.

There is a certain imbalance between the R&D potential and the scientific results by institutional sectors. For example, in 2011 the share of R&D expenditures in total expenditures for the country in the sector “Higher education”, and of the main representative of the public sector – BAS, are comparable (10.24 and 13.78% respectively of all R&D expenditures in the country). The results from the conducted scientific studies are characterized by quite a different ratio. Only one scientific

organization from the public sector (BAS) generates more than 1/2 of all scientific articles in Bulgaria, registered by the SCOPUS system – namely, 3177. In other words, 1/3 of the researchers in the country (employed by BAS) are authors of 2938 publications in reviewed journals, from which 1823 have an impact factor. The latter comprises 56% of all scientific publications by Bulgarian authors. The ISI web of science enlists 11 Bulgarian scientific journals, 6 of which are published by BAS, and 5 – by the business and NGOs.

The shock increase of foreign investments in R&D for the business sector creates positive expectations of smart growth and employment. On the other hand, it raises several questions: for example, whether such investment (demand for R&D) is associated with any market realization, i.e. whether it is sustainable. Until now, the respective calculations do not provide evidence of considerable positive changes. The results from the R&D investments in the business sector, measured by the share of export of high-tech products in the total export, are quite modest. Despite the rapid increase of the size of these investments since 2010, it is precisely during this period that the share of high-tech exports is lower in comparison to the 2009 one. As a whole, this share is 4-5 times lower in comparison to the EU-28 average (table 12).

Table 12

Share of High-Tech Exports in Total Country Exports (%)

	2008	2009	2010	2011	2012
EU-28		15.4	17.0	16.1	15.4
EU-27		15.4	17.1	16.1	15.4
Belgium		6.8	8.8	8.4	7.7
Bulgaria	3.6	4.6	4.1	3.7	3.8

Source: Eurostat data, 11/2013.

No positive changes have been evidenced with regard to the creation of industrial property in enterprises (and its registration locally or abroad) in the country as a whole. Patent activity remains low. The data regarding patent applications submitted to the Patent Office of the Republic of Bulgaria are presented in table 13. They indicate a comparatively low rate of increase of the number of patent applications by Bulgarian applicants in 2011, while in 2012 this number even decreases. Applications for European patents are also limited. A mere 9 applications were submitted in 2010, which is less than the number of applications in 2009 (17) and 2008 (15). These were mainly submitted by large companies.

Table 13

Applications for Patents and Utility Models in the Period 2006-2012 (number)

	2006	2007	2008	2009	2010	2011	2012
Patent applications (Bulgarian applicants)	243	210	250	243	243	264	245
Patent applications (foreign applicants)	48	29	20	24	17	20	14
Total patents	291	239	270	267	260	284	259
Utility models applications (Bulgarian applicants)	129	214	135	178	167	205	190
Utility models applications (foreign applicants)	4	10	12	2	11	14	11
Total utility models	133	224	147	180	178	219	201
Total patents and utility models	424	463	417	447	438	503	460

Source: Patent Office of the Republic of Bulgaria, [www.bpo.bg](http://www.bpo.bg), visited September 2013.

The rapid increase of foreign R&D investments for the business is accompanied by a decrease of the absolute volume of self-financing of R&D and innovations by the business. No improvement of the results is evidenced in 2010 and 2011 – namely, no growth in GDP and labour productivity, high-tech exports, patent applications and registered patents, etc. These results allow for the formulation of the conclusion that the management of R&D processes in the enterprises sector faces serious problems, despite the availability of resources. Hence, changes need to be introduced in the conducted policy for encouraging R&D and innovations.

#### *4.4. Summary and Conclusions Regarding the Policies for R&D and Innovations*

The policy for encouraging research-based innovations is the core of the policy for fostering economic development and growth in developed countries. In Bulgaria, during the analysed programming period, the policy for encouraging innovation is not tied to the one for encouraging R&D activities, which are, to a large extent, overlooked. On the other hand, it develops in time, its forms and impact mechanisms are enhanced. The co-financing of this type of policies by ESF and EFRD during the period 2007-2013 significantly contributes to that. More specifically, the result of the policies, embedded in the OPDCBE, comprises a series of positive impacts, but also numerous unrealized goals.

Amongst the positive results from the implementation of the policies for encouraging R&D and innovations is the absorption of significant financial resources by start-up innovative enterprises, micro, small and medium-sized enterprises, as well as by large enterprises, partner associations (schools, BAS, non-profit organizations, SPs, district and municipal administrations), scientific organizations, investment funds for growing companies, Mezzanine Fund, Fund for Co-financing, Invest Bulgaria Agency, BSMEPA, Bulgarian Institute of Metrology, Executive Agency “Bulgarian Accreditation Service”, State Agency for Metrological and Technical Surveillance, Sustainable Energy Development Agency, the managing authority of the OPDCBE and researchers employed by the business. The good practices from the process of implementation of the policies can be found on the website of MEE ([http://www.opcompetitiveness.bg/module0.php?menu\\_id=110](http://www.opcompetitiveness.bg/module0.php?menu_id=110)).

As a whole, the results from the implementation of the policies for encouraging R&D and innovations are unsatisfactory. The low target and the even lower actual R&D intensity (the R&D expenditures as % of GDP are 0.62 in 2012 and 0.65% in 2013 according to forecast data, while the target in 2013 is 1.15% and in 2015 – 1.2%) result in the worsening of the country’s innovation index. The very small change in labour productivity (GDP per capita in PPP in 2013 is 45%, while the target is 51.2% of the EU average) is not due to the utilization of new knowledge in manufacturing. The small increase of the value of this indicator during the preceding period is not linked to modernization. Respectively, this results in lower competitiveness and more limited potential for increase of exports. The share of the export of goods and services in the GDP is a mere 68.4%, while the target for 2015 is 91%. The value of the target indicator “volume of foreign investments as % of GDP” is worsening. The initial value of this indicator is 26.2%, the value registered in 2007 is 29.4%, while the target for 2015 is

34.5%. During the period, this indicator registers a significant decrease in 2008 and 2009 (the first years of the global crisis) and reaches a level of 3.2 in 2010. According to preliminary data it comprises 3.7% of the GDP in 2012. The non-fulfilment of the target for this indicator is conditioned not only by crisis, but also by the insufficiently efficient implementation of the policies for attracting FDI as an aspect of the policy for encouraging innovations and R&D in the country.

Progress has been achieved with regard to the decrease of the energy intensity of the economy (kgoe per 1000 EUR, i.e. the share of gross domestic energy consumption in kilograms of oil equivalent in GDP at constant prices from 2005). While the goal for 2015 is 1150, the value of the indicator registered in 2012 is 671.3 and the starting point is 1628.16. In reality, however, this dynamic is not particularly significant, since the value of the indicator in 2007 is 770.31. The assessment of the Annual Report in 2013 that the objectives of the programme are achievable by the end of 2013 provides grounds for scepticism in view of the preliminary data for 2013 and 2014.

The changes in the indicators for assessment of the implementation of the OPDCBE, recommended by the Monitoring Committee and approved by the EC in 2012, have a positive impact over the absorption of the resources for the programme, but in the same time impede the policy for encouraging innovations and R&D. As a result of the change, the target values for implementation of the policy are not achieved.

The management of R&D processes in the business sector faces serious problems, despite the availability of resources. The sizeable investments (particularly foreign investments) in their implementation within the sector in recent years have not yet yielded a result, while the expectations to that effect are not sufficiently substantiated. External financing has an unfavourable effect on self-financing of R&D activities, which is likely linked to the unchanged market demand (internal and external) for the results of these activities.

As a whole, the unambitious goals of the policy for encouraging innovations and R&D are a prerequisite for the further lagging behind of the indicators for development in comparison to other countries. On the other hand, even 100% fulfilment of these goals cannot contribute, to a sufficient extent, to the development of a dynamic knowledge-based economy, which is efficient and competitive on the European and world market.

It can be concluded that there is a need for an abrupt change in the policy for encouraging R&D and innovations. The objectives need to be revised (the requirements need to be higher), while the instruments and mechanisms for achieving these objectives need to be perfected. Efforts should be focused on restructuring the performance of R&D activities for the business sector. It is apparent that the provided considerable R&D financing in the business sector, when R&D performs there does not generate a positive effect. Hence, R&D activities in the country need to be performed wherever sufficient respective competences have been accumulated. An effective interrelation needs to be established between the business and BAS and Academy of Agriculture. A further change, which needs to be introduced, is R&D based innovation in the business sector to be profit led and demanded by the internal and external markets.

## **5. Policies for Development of the Transport Infrastructure within the Framework of the Operational Programme “Transport”**

### *5.1. Goals and Priorities of the Policies (Priority Axes 1-4)*

The main goal for the transport sector in Bulgaria is to contribute to the country's economic and social cohesion by ensuring efficient and reliable transport. The favorable geographic location of the country from the standpoint of the five European corridors (IV, VII, VIII, IX and X), passing through its territory, constitutes a significant advantage, but also poses a considerable challenge, since it requires sizeable annual investments in the improvement, maintenance and restoration of the existing infrastructure, as well as construction of the missing links.

**The overall goal of Operational Programme “Transport” (OPT) for the period 2007-2013** is development of sustainable transport system in Bulgaria, as an integrated member state of the EU and an integral part of the European transport market.<sup>74</sup>

*The specific objectives* of OPT are development of the railway, road and inland waterway infrastructure and all accompanying elements, as well as stimulation of the development of combined transport in compliance with the transport policy of the European Union and the requirements relating to the development of the Trans-European Transport Network with the aim of achieving sustainability of the Bulgarian transport system.

OPT has five priority axes, four of which relate to the individual transport sectors, as follows:

#### ***Priority axis 1 – Development of railway infrastructure along the trans-European and major national transport axes.***

Beneficiaries: National Railway Infrastructure Company (NRIC), Metropolitan PLC.

#### ***Priority Axis 2 – Development of road infrastructure along the trans-European and major national transport axes***

Beneficiaries: Road Infrastructure Agency, National Company “Strategic Infrastructure Projects”

#### ***Priority Axis 3 – Improvement of intermodality for passengers and freight***

Beneficiaries: Metropolitan PLC, National Railway Infrastructure Company, Bulgarian Ports Infrastructure Company

#### ***Priority Axis 4 – Improvement of the maritime and inland-waterway navigation***

---

<sup>74</sup> Operational Programme “Transport” 2007-2013, p. 91.

Beneficiaries: Agency for Exploration and Maintenance of the Danube River, Bulgarian Ports Infrastructure Company

**Priority Axis 5 – Technical assistance**

*5.2. Financing the Policy*

For the purposes of construction of the lacking and development of the existing national transport infrastructure, Bulgaria, as a member state of the EU, has received the opportunity to utilize **1624.5 million EUR** under OPT during the period 2007-2013. The financing from the Cohesion Fund amounts of 1255.7 million EUR, while the financing from European Fund for Regional Development (EFRD) amounts to 368.8 million EUR. The additional national co-financing from the stage budget is 379 million EUR. In summary, the country has been able to utilize a total of 2003.5 million EUR during this programming period.

According to Regulation (EU) No 1083/2006, the allocation of the financial resources by priority axes within the framework of Operational Programme “Transport” is linked to the designation of the most important infrastructural projects, which need to be implemented as a means to fulfill the investment goals of the programme.

Table 14

Financing by Priority Axes (million EUR)

Priority axes	EU co-financing	National co-financing	Total
Development of railway infrastructure along the trans-European and major national transport axes (PA 1)	464.0	116.0	580.0
Development of road infrastructure along the trans-European and major national transport axes (PA 2)	791.7	197.9	989.6
Improvement of intermodality for passengers and freight (PA 3)	179.4	31.7	211.1
Improvement of the maritime and inland-waterway navigation (PA 4)	133.3	23.5	156.8
Technical assistance (PA 5)	56.1	9.9	66.0
<b>Total</b>	<b>1624.5</b>	<b>379.0</b>	<b>2003.5</b>

Source: Operational Programme “Transport” 2007-2013, p. 144-145.

The data indicate that the total financial resources, allocated to the individual priority axes<sup>75</sup>, differ in amount. The most significant resource is allocated for the development of the road infrastructure along the trans-European and major national transport axes (PA 2). This priority axis is also associated with the largest amount of national co-financing. The policies for development of the railway infrastructure along the trans-European and major national transport axes (PA 1) rank second (with total financing to the amount of 464 million EUR and national co-financing to the amount of 116 million EUR).

<sup>75</sup> During the period 2007-2013, besides OTP, there are other opportunities for ensuring the financial resources for development of the Bulgarian transport infrastructure, such as the programmes: ISPA (until 2012), Phare (until 2010), Transit routes, Operational Programme “Regional Development”; grand financing from the French Agency for Development, KfW (German Credit Institution for Reconstruction); loans from the EIB, KfW, capital transfers from the state budget and others.

The policies for improvement of the of intermodality for passengers and freight (PA 3) and for improvement of the maritime and inland-waterway navigation (PA 4) receive funding to the amount of 211.1 and 156.8 million EUR respectively, while national co-financing is comparatively limited in amount – 31.7 and 23.5 million EUR, respectively.

The ratio of national co-financing to financing from the European funds in the total available financial resource differs between the individual policies. However, European financing clearly predominates and the ratio of European to national co-financing is approximately 5:1. *Consequently, OPT is of decisive importance from the standpoint of the support provision to the policies for development of the transport infrastructure in the country.*

### *5.3. Criteria and Grounds for Assessment of the Necessary and Feasible Policies*

The concept of the single European market determines the goal for construction of the elements from the European transport corridors and the Trans-European Transport Network (TEN-T), which are missing on the territory of the country, in terms of both length, freight capacity and road conditions. This is a necessary condition, because the sufficient length and quality of the railway and road transport infrastructure constitute the basis of the construction and development of the key transport infrastructure<sup>76</sup> links of European and cross-border significance. This would further contribute to an improvement of the operational suitability of the main road and railway arteries.

These goals and objectives indicate that the focus of the national and sectoral policies at the start of OPT was adequate, as it prioritized the development of road and railway networks in the country. The successful realization of this priority requires the resolution of two important inter-related issues – construction of the elements missing from the road and railway networks in Bulgaria, and development of the existing road networks that do not comply with European standards (speed, axle load, security and traffic safety, etc.).

Logically, the significant lagging behind with regard to the operational capacities of the road and railway networks, which comply with the European standards, criteria and requirements for the European transport corridors and types of transport<sup>77</sup>, further complicated the selection of policies for development of the transfer infrastructure. This is due to the fact that the specified priority exhausted nearly the entire financial resource of OPT.

These circumstances impeded the development of the other policies and particularly of the ones, which implementation would have led to overcoming the accumulated problems, like permanent and temporary speed restrictions, inability to utilize the

---

<sup>76</sup> Roads and railway lines, the contact network, level crossings of transport networks and other necessary elements for construction of effective operational suitability.

<sup>77</sup> For the condition (effective lifespan) and transport opportunities – axle load -11.5 t / axle, maximum and average maximum speed of vehicles, availability of road signs for the provision of information and traffic control, sites for recreation and others.

transport capacity of vehicles, increased cost of fuel and lubricants for repair. These downsides of the transport infrastructure and the existence of “tight” spots in serviceability are an obstacle to the achievement of the design parameters of many road segments (sections). They are further conditioned by the large scope and share of incomplete planned prophylactic repairs, the large length and share of the amortized contact network and of the systems for management and control over the security and safety of the railway transport, as well as by the problems with the road network and particularly of the part managed by the municipalities.<sup>78</sup>

*As a result, numerous priority goals remained unfulfilled, while the start of a series of projects, except the project for construction of the first and second metro diameter of the Sofia subway, was delayed.* For all elements of the transport infrastructure, the initiated construction was halted and dispersed amongst numerous sub-sites. As a result of the lack of concentration of the goals, the necessary financial resources were not ensured, while OPT contributed limited resources to the development of the transport infrastructure in Bulgaria, which is significantly underdeveloped in comparison to other European countries.

The negative characteristics, specified with regard to the railways and roads, which make up our part of the European transport corridors, are also evidenced by the ones that make up the road networks of national significance (for example, the road Sofia – Yablanitsa – Belokopitovo) and of the ones within the scope of municipal roads. Hence, it is imperative for the assessment<sup>79</sup> of the of transport policies, implemented in Bulgaria during the period 2007-2013 within the framework of OPT, to be based on *the degree of operational suitability of the existing infrastructure and a comparison of that level within the state of the transport infrastructure in the other EU member states.*

The analysis of the policies relating to the railway and road infrastructure needs to be further developed and supplemented by analysis of the *policies for reconstruction* (as well as rehabilitation and modernization) of the specific sections from the railway and road infrastructure, aimed at the elimination of “tight” spots. Reaching the design parameters for the existing land transport networks, as well as for the commercial and technological elements of the stations and stops (railway and road stations and buildings, station tracks, sectoral platforms for boarding and disembarking of passengers, platforms, parking and railway station squares), should also be taken into consideration.

---

<sup>78</sup> The municipal road network is an integral part of the national road network and allows for numerous national European shipments. Its separation, as is the practice in Europe, is useful and accurate, solely if the municipalities put the same efforts into maintaining it as they do for the Republic Road Network. Otherwise, if it is in a poor condition, this diminishes the effects from the national road network, including the national ones, which make up the European transport corridors in Bulgaria.

<sup>79</sup> Concerning the assessment of the focus (the prioritization of the goals) and the sufficiency of the financial resources under OPT, attention should be drawn to the fact that during the period 2007-2015 Bulgaria had 6 governments, and naturally each of them handed different priorities with regard to OPT, and 3 of the 5 neighbouring countries are not EU members; for example, Macedonia has its own priorities, which are different from ours, for transport corridor VIII.

#### 5.4. Realization of the Policies and Contribution (Benefits) to Economic Development

During the period 2007-2013 the policies are aimed at *construction and development of electrification, modernization and rehabilitation of the railway lines* Septemvri – Plovdiv – Svilengrad – Turkish border and Plovdiv-Burgas, which fall within European corridors. The results are as follows: 18 km of new railways have been brought into operation; more than 180 km of railways have been electrified and rehabilitated. Part of the reconstruction and rehabilitation of the specified railways was executed with the financing from OPT and the financial resources allocated by the National Railway Infrastructure Company (NRIC) and the state budget (PA 1).

Under this Priority axis, the modernized and new sections reduce the travel time for passengers and freight, as well as the expenditures for maintenance of the lines. The better road conditions limit the negative impact over the environment, while the removal of level crossings improves transport safety. The implemented railway projects are in compliance with the European standards of operational compatibility and security. The work on the construction of signaling systems along the section Septemvri – Sofia continues, as does the construction of telecommunications along the entire line Sofia – Plovdiv; currently the level of physical implementation is around 40%. The modernization of the train stations Sofia, Burgas and Pazardjik is on-going, as is the modernization of another 12 smaller stations.

During the period 2007-2103 the policy for development of the road network (PA 2) has resulted in the construction of 178.7 km of new highways. The construction of *Trakia highway* is completed with the finalization of the 115 km section from Stara Zagora to Karnobat. A total of 5 junctions, 9 bridges, 36 overpasses, 15 underpasses, 3 intersections with railways have been constructed within the project. In 2007 the transit flow of cargo by road amounts to 6 663 900 tons, while in 2013 transit flow along the country's transport network amounts to 12 198 900 tons (an increase of 81.3%).

The better infrastructure improves economic development and tourism in the regions, where the highway passes. As a result of the better road conditions, the period for active sea tourism is prolonged by 15 days. The travelling intensity between the two final destinations – Sofia and Burgas, is also increased. The new highway ensures better accessibility of all other road networks and the large cities, near which it passes. This creates further opportunities for utilization of the highway. The highway is constructed in compliance with a series of environmental measures for preservation of animal species, which are new to the country.

Since 2010 the *Lyulin highway* is also in regular operation (19 km). It accommodates the traffic and eliminates the bottleneck between Sofia and Pernik via Knyazhevo and Vladaya. The Lyulin highway also eliminated the social conflict, created by the fact that vehicles used to pass through that residential area of Sofia.

The section between Dolna Dikanya and Dupnitsa (16.7 km) of the *Struma highway* is brought into regular operation. The new section shortens travel time by around 10 minutes. The regular operation of the *Maritsa highway* is forthcoming, following the finalization of the construction of a 67 km section between Orizovo village and Harmanli.

25 km of new first class roads have been constructed. The cross-border road Kurdjali – Podkova has been rehabilitated and modernized, as well as over 1380 km of road sections from the national and municipal road networks. The bypass road to Vratsa has been constructed and brought into operation. The bypass road to Montana is in the process of construction, while the construction of such road to Gabrovo has also commenced.

The construction of highways and the measures to ensure the normal operational suitability of the entire road network of the country (national and municipal road networks) has a *direct and multiplying effect* on the economy and living conditions: increase of employment and respectively of GDP, shortening the freight and travel time, reducing the expenditures for fuel and repairs, which is a prerequisite for improving the competitiveness of Bulgarian enterprises, increasing the amount and share of transit of road traffic and cargo through the country, reviving agriculture and tourism, creating opportunities for European integration of the country and others.

The improvement of intermodality (PA 3) includes completion of the extension of the subway in Sofia. 13 new metro stations and 13 new subway lines have been constructed and brought into operation; 18 new trains provide transport services. All of this improves the travel conditions and the intermodality in Sofia, which eases the transfer of passengers between the different types of transport in the city.

The completion of the first and second phase of construction of metro diameter (subway line Cherni Vruh blvd. – Central railway station Sofia – Nadezhda overpass to Obelya) and the constructed connection with the first metro diameter will have the following effects: the number of passengers transported daily will increase from 185 000 to 380 000, while automobile traffic will decrease by 20%. This means that 90 000 hours of travel time will be saved as a result of the faster transport service by the subway. The new metro diameter allows for acceleration of the transport connections and contributes to the economic development of the districts it services. On a daily basis, more than 130 000 passengers from the districts Lozenets, Obelya and Nadezhda reach the town center in less than 10 minutes. This improves the living conditions for the residents of the capital and, in the meantime, refines the town's transport system and increases its potential, while decreasing environmental pollution.

The second metro diameter has decreased the scope of the work of road transport by 2 million km per annum, while the number of public transportation vehicles has decreased by 80 as result of the termination or reorganization of land lines of transport. The transition of the passengers towards subway transport, which is a more environmentally friendly type of transport, decreased road traffic in Sofia and limited the hazardous emissions into the air.

As a result, the number of traffic accidents has decreased, as well as the level of noise and vibrations in the urban environment, while the average travel time has decreased by 16 minutes. Besides the significant economic, social and environmental effects this project had in Sofia, it has been designated as a benchmark for project implementation under OPT in EC, because of the outstanding implementation of the mode "price – quality – preservation of architectural values". This is a very significant managerial and

construction achievement from the standpoint of transport, regional and national policies for development of the railway transport infrastructure.

Under PA 3 of OTP, the transport policy adequately focuses on the need to support intermodality through the construction of intermodal terminals and the establishment of integrated urban transport. The construction of intermodal terminals in stations Todor Kableskov and Ruse marks the beginning of the development of a national network of transport and logistics centres and its future integration into the European logistics networks.<sup>80</sup> The contribution of this policy, however, is insufficient, since only one intermodal terminal is being constructed. The construction of integrated urban transport is an excellent policy, but it should be pointed out that it commenced and was being developed with the tools of Operational Programme “Regional Development” as opposed to the ones of OPT.

The policy for improvement of the maritime and inland-waterway navigation (PA 4) necessitated the construction of a River Information Services Centre in Ruse with the following task – management of ship traffic along the river Danube. Inland-waterway navigation is a competitive alternative to road and railway transport. However, the fact that the navigation period has decreased as a result of increasingly frequent climatic changes should also be taken into consideration. The capacity of this type of transport is not yet sufficiently utilized, despite its potential to alleviate European and national traffic along the routes East – West. The introduction of a river information system will improve the safety and efficiency of ship navigation and will ease the integration of Bulgaria’s inland-waterway navigation into the European intermodal supply chains, which will be particularly beneficial to the economy of the country.

##### *5.5. Assessment of the Implemented National and Sector Policies for Development of the Transport Infrastructure by Criterion “Achievements of the EU Member States”*

The assessment of the achievements during the period 2007-2013 in comparison to the sound achievements of the member states of the European Union constitutes a reliable basis for determination of efficient policies and selection of adequate management decisions for development of the infrastructure<sup>81</sup> during the new programming period 2014-2020.

The identification of the EU countries with the most significant achievements in the development of the national and regional road and railway infrastructure is an objective indication of which transport policies should be prioritized as a means to ensure efficient development of the transport infrastructure in Bulgaria during the period 2014-2020.

---

<sup>80</sup> The terminal for combined transport includes: site for loading and unloading from trains to cars and back, shaping of the storage area for empty containers; administrative building for customer services, border control building, maintenance workshop of mechanization; construction of a parking lot with appropriate equipment and buildings, a road connection and others.

<sup>81</sup> The subject of analysis in this report is the development and state of the national railway and road network and its main infrastructural elements, which are necessary for achieving efficient transport service provision to the settlements and the population, such as staging posts for transport vehicles, carrying out commercial activities – bus stations, railway stations and stops, crossings, etc.

*By the value of the indicator “availability of transport infrastructure in Bulgaria”, measured as the length and density of the railway and road network, Bulgaria ranks last amongst the EU-27:*

- A) In 2007, the length of Bulgaria’s railway network was 4143 km and it ranked on 13<sup>th</sup> place amongst the EU member states. The comparison of the value of this indicator with the level achieved by the countries, whose territory is most comparable to ours (for example, Hungary), indicates that Bulgaria has not developed the production potential, associated with the railway network. By the value of this indicator, we lag behind in comparison to many other countries, such as the Czech Republic and Austria. The registered level of the indicator is higher in comparison to Portugal (which, contrary to us, has well-developed maritime transport). It is paradoxical that countries, such as Belgium and Slovakia, whose territory is 3.4 and 2.2 times smaller than ours, register lengths of their railway networks that are comparable to ours.
- B) It should be re-assessed whether the existing railway network, with its present length, is sufficient to effectively service the transport needs of the country and the individual regions. If not, it should be developed, i.e. the length of the railway network needs to be increased via the construction of new railway lines. A series of authors and institutions, such as the beneficiary Ministry of Transport, Information Technology and Communications (MTITC), specify in the Strategy for Development of Transport in Bulgaria until 2020 that “the country is well-developed in terms of the length of the railway network”. However, taking into consideration that the total length of the railway network of our country is smaller in comparison to many European countries, and that Smolyan district does not have a railway station and that the line Cherven Bryag – Oryahovo (with a length of 106 km) no longer exists, the assessment that our country has sufficient railway infrastructure<sup>82</sup> needs to be a subject to discussion and argumentation.
- C) In our opinion, the length of the country’s railway network needs to be increased for the following reasons:
- it is smaller in comparison to countries with a comparable territory;
  - the spatial intensity of our territory is smaller in comparison to the mentioned countries of similar territory; in 2007 the value of the indicator was 37.3 km/1000 km<sup>2</sup>;
  - the decrease of length of the railway network of the country, which continues since 1990, will be compensated. During the period 2007-2013, with the sole exception of 2008, a tendency towards a slight but continuous decrease of the length of the railway network of the country is registered in Bulgaria. As a result, as of 2013 the length of the network is 4070 km.

---

<sup>82</sup> Most of the operational capacities of the railway and road networks do not meet the high European requirements for speed, traffic, axle load, combined traffic, ecology and safety.

- D) The decrease of the availability of transport infrastructure in the country contrasts the tendency, evidenced in almost all other EU member states, towards limitation and even discontinuation of the disassembly of railway lines. This indicates that Bulgaria has made a mistake by physical dismantling part of the constructed railway network with the aim of decreasing expenditures for railway transport. The shortening of the length of the existing railway lines has various negative consequences, such as increase of environmental pollution due to the accelerated development of automobile transport, worsening of transport service provision to the population, high number of fatalities resulting from road traffic accidents and others.
- E) There is an European directive for prioritized development of the railway transport. Its aim is for EU member states to stimulate the development of a more environmentally friendly and safe transport system and to increase its share in transport service provision to the population at the expense of road transport. This already is a priority of the transport policies of highly developed European countries, and the initial positive results have already manifested as follows: the process of physical dismantling of the existing railway networks is discontinued and the evidenced tendency is towards an increase of the length of the railway network. In 13 member states an increase, though very limited, of the length of railways, is evidenced even during the period 2007-2010.
- F) Bulgaria does not follow this tendency, which in our opinion necessitates the elaboration of a new management policy regarding the development of this transport network, namely:
- Re-assessment of the process of discontinuing the operation of railway lines (discontinuation of the train movement along them). Until now, 10 secondary railway lines with a total length of 259 km have been brought out of operation; they used to service 85 settlements, including 9 towns.
  - We believe that the arguments in favor of their discontinuation are “of low efficiency<sup>83</sup>” and there is a singular answer regarding their future – they definitely need to exist, especially in view of the fact that they have a significant social effect<sup>84</sup> and support the effective realization of the production and business potential of the national and regional economy.
- G) Any further worsening of the value of the indicator “length of the country’s railway network” (disassembly) would not only condition even lower level of availability railway production capacity in the country, but would also limit possibilities for effective transport activity, which would have significant negative economic, demographic and social consequences for the economic and social development of the country and for the future sustainability of the country and its regions.

*The value of the indicator “average density of the railway network on the territory of the country” for Bulgaria is 37.3 km/1000 km<sup>2</sup> in 2007. This value ranks the country on 16<sup>th</sup>*

---

<sup>83</sup> Assessment of the carriers.

<sup>84</sup> Assessment of the users.

place, lagging behind all former socialist countries, which are now EU members. The lagging behind is particularly significant in comparison to the Czech Republic, which ranks 1<sup>st</sup> in terms of the availability (density) of railway infrastructure on its territory, with a value of the indicator of 120.3 km/1000 km<sup>2</sup>. Our country falls behind with regard to the value of the analyzed indicator in comparison to the EU average of 49.2 km/1000 km<sup>2</sup>.

In terms of the evidenced tendency, which is not particularly clearly pronounced, 3 groups of EU countries could be designated as follows: countries with density of the railway network unchanged (Hungary, the Netherlands, Denmark, Slovenia, France, Romania, Portugal and Luxemburg), countries with registered tendency towards increase (for example, Belgium, the United Kingdom and others) and countries with worsening of the value of this indicator (such as Germany, Slovakia, Poland, Latvia and Bulgaria).

In summary, the changes in the value of this indicator during the programming period 2007-2013 necessitate a radical change in the future transport policy of the country in the following aspects:

- restoration of the railway points (stations) in compliance with the specific local conditions; this would lead to improvement of service provision in a greater number of settlements in the country;
- all secondary railway lines, along which train movement has been currently discontinued but the train tracks have not been dismantled, need to be restored as operational segments of the transport network; transport vehicles of small freight capacity can provide services along them. On the one hand, this would discontinue the negative tendency towards decrease of the length of the railway network, and, on the other hand, it would increase the availability of railway services to the settlements and their population.

*The value of the indicator “length of the road network of Bulgaria (Republic Road Network – RRN)” allows for the following assessments:*

- A) In 2010 Bulgaria ranks on 17<sup>th</sup> place amongst the EU member states by the value of the indicator length of the republic road network with a total of 19 425 km. Many countries with a smaller territory, such as Latvia and Lithuania, rank higher than our country in terms of the length of their national road network. The neighbouring countries Romania and Greece, which are our main competitors from the standpoint of the attraction of transit traffic flow, are characterized by a better condition, greater length and scope of the road network from the type “national”.
- B) Many countries register worse values of the analysed indicator (Slovakia, Belgium, the Netherlands, Portugal, Slovenia, Estonia and Ireland). However, if we take into consideration the length of municipal (local) roads and assess the total availability of roads, Bulgaria would rank on 24<sup>th</sup> place amongst the EU member states with a total length of 37 390 km. Only Cyprus, Malta and Luxemburg rank lower than our country.

C) Hence, the assessment of the Ministry of Regional Development and Public Works (MRDPW) that our country has 100% road network availability<sup>85</sup>, and respectively a “100% sufficiency” of the RRN, would be accurate only if the parameters for operational suitability of the Bulgarian national (third class) road network and the municipal road network are very similar in value, as is the case in the countries, which rank lower than us by the indicator length of the RRN. This necessitates harmonization of our assessments regarding the classification of the road network in compliance with the standards applied in the other EU member states.

*The state of the transport infrastructure in terms of its operational capacity, assessed from the standpoint of the interest of the users of transport services (by the settlements and the population) by the indicator “share of station tracks in the total length of the country’s railway network” (28% in 2013 and 31.2% in 2007) indicates that the throughput of the railway network decreases in comparison to preceding years and in comparison to the operational capacity of road transport. By the value of this indicator of the state of the railway network, Bulgaria is amongst the lowest ranked countries in the EU, with Malta and Cyprus being the sole exceptions.*

The decrease of the absolute length of the station tracks and their share in the total length of the railway network indicates that the efficiency of railway transport in the country is severely impaired. This means longer travel time for a given distance in comparison to preceding years. This is a negative characteristic, evidenced by the railway lines, which fall within the group of the European traffic corridors.

Currently, all railway lines are characterized by longer waiting times as result of the lack of station turnouts and opportunities for overpassing. *A new investment and management policy for rapid restoration of the disassembled station tracks and achieving compliance of the throughput of railway lines with the respective design parameters* is needed as a means to overcome this negative operational characteristic. The implementation of such project would lead to an increase in the throughput of the railway network. The effect would far exceed the more sizeable expenditures for on-going repairs and maintenance of the longer station tracks.

The objective assessment of the state of the transport infrastructure can be based also on the condition of many infrastructural elements, necessary for achieving operational suitability and adequate functioning of the railway transport, namely: there is a great number of overdue necessary repairs; the number of level crossings of the railway network by the road network is also large, which is the reason for the existence of more than 819 crossings (143 of which unguarded). The values of the specified indicators condition the low operational parameters of the railway network in Bulgaria, the worsening of its operating condition and the decrease of its production capacity in comparison to the road network.

The speeds that the railway network of the Republic of Bulgaria allows do not comply with the requirements, stemming for the undertaken international engagements for development of railway transport. According to the timetable for the movement of freight

---

<sup>85</sup> In 2007, a mere 11 of a total of 5341 settlements in the country had no road connection.

and passenger trains in the period 2013-2014, the average maximum permissible speed along the railway network is 56.4 km. This value is significantly lower in comparison to the one in preceding years. This is the main reason for the transit freight flow to bypass the country.

In 2009 the structure of Bulgaria's RRN by class is as follows: highways comprise 2.12% of the total length of the road network, first class roads – 15.31%, second class roads – 20.73%, and third class roads – 61.84%. By the level of this indicator Bulgaria assumes one of the last places amongst the EU member states.

The information about the accessibility of the necessary transport infrastructure to the settlements and the population allow for the following assessments of the state and development of this important characteristic:

The settlements in the country *are characterized by a more limited degree of availability of railway services*. In Bulgaria 7.81 villages are serviced by one railway station or stop. Comparative analysis indicates that the availability of railway services in Bulgaria is 3.2 times lower in comparison to the Czech Republic and 1.8 times higher in comparison to Poland. However, it should be taken into consideration that Poland has over 7 times more settlements than Bulgaria, while its population is around 5 times that of our country.

The settlements in the country *are characterized by impeded accessibility of railway stations and stops*. In Bulgaria the average distance between the stations is 6 km, while in the Czech Republic it is a mere 3.60 km, in Austria – 3.06 km and in Poland – 7.40 km.

On that basis, it can be concluded that the settlements in Bulgaria are characterized by a more limited and more impeded access to railway transport and the services it provides.

Every year the number of railway stations and stops in the country decreases, which worsens the availability and accessibility of transport service provision to the population. This unfavourable tendency began to manifest 25 years ago and continues to this day. During the period 2007-2013, the total number of railway stations and stops continues to decrease (from 688 in 2007 to 666 in 2013).

The decrease of the number of railway stations and stops in settlements can be explained by the efforts of the state railway management institutions (Bulgarian State Railways (BDZ) and National Railway Infrastructure Company (NRIC)) to decrease operational expenditures, as well as by the goal to decrease compensations from the state budget for maintenance of the railway infrastructure. These management policies, however, solely worsen the production capacity of this transport system, making it unattractive to use.

The *development of a new national management policy* is a feasible way to counteract this negative situation. Such policy would have to involve municipal administrations and would lead them to assume greater responsibility with regard to the development and

preservation of a sound operational condition of the buildings of railway stations and stops, as well as the other infrastructural elements facilitating passenger services (parking lots, platforms, waiting rooms, restrooms, etc.). These elements contribute to ensuring a quality service provision to the users of railway transport. This is particularly important for the railway stations and stops, which allow access to railway transport services, via district and municipal bus lines, to settlements situated at greater distances from the railway network.

The transport service provision to settlements, which use the road network as an element of their production activity, does not have these problems, since all settlements in Bulgaria have road connections and the ensured accessibility of bus and microbus services is 100%.

*Road traffic accidents (RTA)* are a negative result of the operation of the transport network. Their frequency is influenced by numerous factors. The technical and operational characteristics and physical state of the transport infrastructure condition their occurrence. On that basis, it can be concluded that the subsequently implemented management policy was adequate. It entails redistribution of some of the financial resources provided by OPT towards the elimination of tight spots and the development of the individual elements, which make up the transport infrastructure. The adequacy of this policy is confirmed by the achieved positive results – the value of this indicator decreases during the first programming period of OPT 2007-2013. This asserts the notion that the policy for prioritized allocation of financial resources to the improvement of the operational suitability of the high class roads, such as the highways and the roads from the first and second class, is adequate in view of the fact that these roads are logically subjected to more intensive utilization.

#### *5.6. Summary and Recommendations*

##### *A) Development of the railway network as a means to increase the transit of cargo and passengers*

- The 580 million EUR, invested within the framework of PA 1 of OPT, at this stage have not yet increased railway transit traffic through the territory of Bulgaria. There are two main reasons for that. The first one is that Serbia has developed its road and railway networks towards Skopje and via its transport policy has diverted a significant part of the transit flow away from Bulgaria. The second reason is the delay and lack of integral modernization of the railway line from BCCP Kalotina to BCCP – Kapitan Andreevo.
- The lack of a completed border-to-border railway line of the trans-European type (Bulgarian railway line, a part of European corridor) impedes the development of transit railway transport. A new transport policy is needed for railway freight, such that would include tariff preferences and complex transportation services to attract transit traffic.

*B) Contribution of the investments within OPT to an increase of the speed of trains*

- Currently, Bulgaria does not have a single railway line, which meets European parameters (namely, the degree of compliance with European standards for the permissible speed in the range above 130-160 km/hour and degree of amortization of the systems for train traffic control management). This impedes the attraction of larger transit traffic (in 2013 it amounts to 878 800 tons, while in 2007 it was 1 266 500 tons).
- The existence and functioning of level crossings of roads (a total of 11 crossings along European corridor 10) is an important reason for the decrease of the speed of trains and a prerequisite for the occurrence of road traffic accidents.
- There is no positive link between the financial resources allocated for the purposes of development of the railway network and the average maximum permissible speed of movement of trains along the national railway network (in 2007 it was 83.4 km/hours, while in 2014 it is 56.8 km/hour). The main reasons for the low average maximum permissible speed of movement of the trains in Bulgaria are the permanent and temporary restrictions of the design speed of trains.
- Many sites, which are not of national and regional significance for the economy, remain outside of the scope of European corridors, because they are not encompassed by OPT for the programming period 2007-2013. Such sites include the railway line Sofia – Karlovo – Karnobat, the contact network, as well as the station complexes<sup>86</sup>, which modernization would improve the functional conditions of the railway infrastructure.
- It is necessary to develop and renovate the installations, which ensure higher levels of security and safety of train movement. The lack of financial resources under OPT does not allow for modernization of important infrastructural elements, which impedes the execution of complex modernization of the railway network in Bulgaria and realization of its design potential.

*C) Improvement of the road network and development of transit*

- The transit through the country along the road network is larger in comparison to the railway network, and the registered tendency provides grounds for optimism regarding the contribution of the development of the road network to the transit of automobile, cargo and passenger traffic.

---

<sup>86</sup> Different definitions, in terms of scope and content, are used for the categories station and station complex. The term station is inadequately considered to include different production elements such as: station building for commercial purposes, waiting rooms, rooms for mothers with small children and for other technological activities, the head station, relay centralization and others, station tracks, station signalling and other infrastructural elements, which constitute other means of labour and require different financial resources for construction and maintenance of the operational suitability. The scope of the projects under OPT reaffirms the need for immediate methodology decisions aimed at fostering clarity, precision and accuracy of the assessment of the contribution of the allocated funds to the development of the railway infrastructure.

- More favourable conditions for increase of the amount of transit have been established, regardless of the negative impact of external factors (such as the fact that Serbia and Macedonia are not EU members).
  - There is a link between the increase of the length and the share of highways in the road network of the country. It is necessary to continue the construction of national road networks, which impact the attraction of transit road traffic through the territory of Bulgaria. This is particularly important for the road connection from Ruse, thorough Veliko Turnovo and Hainboaz, to Svilengrad.
- D) Eliminating existing disproportions in the national and municipal road network, resulting from:*
- road bridges with insufficient width (narrow bridges) and lack of a third speed lane (Montana, through Petrohan, to Sofia and BCCP – Kulata and Kalotina);
  - unmaintained road sections;
  - increase of fuel expenditures, prolong waiting and travel time.
- E) Transition to high transit road traffic and elimination of unfavourable conditions for the population via:*
- construction of bypass roads around settlements as a means to avoid road transit traffic;
  - construction of underpasses and overpasses for pedestrian crossing of streets with high traffic load in the settlements.
- F) Improving traffic conditions for motor vehicles as a means to ensure safer travel conditions and reduced travel time via:*
- construction of emergency lanes and pockets for stopping;
  - widening, via new lanes, of the over 100 road sections in Bulgaria with a high concentration of road traffic accidents;
  - modernization of road junctions with lights.
- G) Improving the accessibility of the existing road network to the settlements via:*
- further construction of missing road links for direct access to nearby highways;
  - construction of rainfall sewers. Currently, such are lacking along 25% of the railway lines, 40% of the national road network and 75% of the municipal road network;
  - construction of lacking overpasses and underpasses for crossing tow-level roads.

## **6. Policies for Development of Public Capital within the Framework of the Operational Programme “Environment”**

### *6.1. Scope, Consistency and Sustainability of the Environmental Policies*

The Operational Programme “Environment” (OPE) 2007-2013 is one of the seven operational programmes developed under the National Strategic Reference Framework (NSRF) of Republic of Bulgaria for the programming period 2007-2013. It is based on the goals and priorities of EU environmental policy and reflects the international environmental commitments that Bulgaria has undertaken, as well as both the commitments to the EU undertaken in the pre-accession period, and the specific national interests. The programme is prepared in accordance with the principles, formulated in the basic national documents for sector “Environment”.

The general strategic objective of OPE 2007-2013 is *“improvement, preservation and recovery of the natural environment and development of the environmental infrastructure”*.

Through improvement and development of the basic environmental infrastructure, the operational programme will contribute to the implementation of the following mid-term strategic goals of the country’s NSRF for the period 2007-2013:

- *strengthening the competitiveness of the economy to achieve high and sustainable growth;*
- *developing human capital to ensure higher employment, income and social integration.*

According to the NSRF, Bulgaria needs to focus on the following four strategic priorities as means to achieve these med-term strategic goals:

- *Priority 1 – Improving basic infrastructure;*
- *Priority 2 – Increasing the quality of human capital with a focus on employment;*
- *Priority 3 – Fostering entrepreneurship, favourable business environment and good governance;*
- *Priority 4 – Supporting Balanced Territorial Development.*

OPE contributes to the implementation of Priorities 1 and 4 through investments in the infrastructure, relating to environmental preservation, which aim at fostering economic growth and ensuring higher living standard.

The general strategic objective of OPE 2007-2013 also contributes to the implementation of the following priority of the European Community for the Cohesion policy 2007-2013: *“improvement of attractiveness of EU member states, cities and*

*regions through improvement of accessibility, ensurance of quality and level of services, and preservation of their environmental potential”.*

The specific strategic objectives of OPE 2007-2013 are as follows:

- *protection and improvement of the condition of water resources;*
- *improvement of waste management and soil protection;*
- *preservation of biodiversity and nature protection.*

OPE 2007-2013 focuses on the implementation of the priorities that are directed towards compliance with the directives, requiring the largest financial resources. The implementation of the priorities contributes to the compliance with the requirements of both the legislation of the European Community and the national legislation in the field of environmental preservation.

OPE has four Priority axes as follows:

*Priority axis 1 – Improvement and development of water and wastewater infrastructure in settlements with over 2000 p.e.<sup>87</sup> and in settlements below 2000 p.e. within urban agglomeration areas*

The main objective of the Priority axis is preservation and improvement of the environmental condition of the water in the country.

The eligible beneficiaries of Priority axis 1 of OPE are: municipal administrations, WSSCs and River Basin Management Directorates at MOEW.

*Priority axis 2 – Improvement and development of waste treatment infrastructure*

The main objectives of the priority axis are:

- improvement of the waste management in the country in compliance with the defined hierarchy for waste management (prevention, utilization and final treatment);
- improvement of the soil and groundwater condition and decrease of the part of the country's territory covered with existing landfills for household waste.

The eligible beneficiaries of Priority axis 2 of OPE are: municipal administrations, regional associations/associations of municipalities.

---

<sup>87</sup> P.e. – “population equivalents”, defined as biodegradable organic substances, whose biochemical oxygen demand for 5 days (BOD5) equals 60 grams per day.

*Priority axis 3 – Preservation and restoration of biodiversity*

The main objective of the priority axis is to reduce and halt the loss of biodiversity in the country. The objective shall be pursued by developing the national NATURA 2000 network, and by ensuring sustainable management, preservation, and restoration.

*Priority axis 4 – Technical Assistance*

Main objective of the priority axis is the effective management of OPE 2007-2013 in order to improve the absorption capacity within the Programme.

*In view of the goal of the current study, namely, assessment of the impact of European funds during the period 2007-2013 over the factors of growth and, in this case, over public infrastructure, the focus of the assessments conducted in this section is placed on the first and second priority, which have an investment characteristic.*

The environmental policy goals for the new programming period are largely unchanged. However, they reflect the new socio-economic reality following the international financial crisis, the new requirements of EC regarding the concentration of resources, aimed at the generation of greater benefits, etc.

Since 2010, the European structural and investment funds will play an important role towards the implementation of the objectives of the “Europe 2020” strategy of the EU for smart, sustainable and inclusive growth. As a means to achieve the respective goals, the Funds need to focus on a number of thematic goals, formulated by Art. 9 of Regulation (EU) No 1303/2013.<sup>88</sup> OPE<sup>89</sup> is one of the operational programmes of the Republic of Bulgaria, which is elaborated within the framework of the implementation of the “Europe 2020” strategy of the EU for smart, sustainable and inclusive growth and will be earmarked to the achievement of **Thematic objective 5** – Promoting climate change adaptation, risk prevention and management, and **Thematic objective 6** – Preserving and protecting the environment and promoting resource efficiency.

The implementation of OPE 2014-2020 also contributes to policies, embedded in the following documents at European and national level:

- National Reform Programme – according to the strategic policy of the country for achieving sustainable growth, described in section 4 of the National Reform Programme (NRP, April 2012) “environmental preservation, as one of the main pillars of sustainable development, is a key factor for fostering socio-economic

---

<sup>88</sup> Regulation (EU) No 1303/2013 of the European Parliament and of the Council of December 17<sup>th</sup>, 2013, laying down common provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund, the European Agricultural Fund for Rural Development and the European Maritime and Fisheries Fund and laying down general provisions on the European Regional Development Fund, the European Social Fund, the Cohesion Fund and the European Maritime and Fisheries Fund and repealing Council Regulation (EC) No 1083/2006 of the Council.

<sup>89</sup> Draft of Operational Programme “Environment” 2014-2020 and accompanying documents, sent to the EC on November 28<sup>th</sup>, 2014.

development by ensuring green economic growth, high quality of life, security and social equality”;

- Council Recommendations on Bulgaria’s 2014 National Reform Programme;
- Position of the Commission Services on the development of Partnership Agreement and programmes in Bulgaria for the period 2014-2020 (Commission’s position);
- Partnership Agreement;
- Partnership Agreement of the Republic of Bulgaria, outlining the support from the European Structural and Investment Funds for the period 2014-2020, has been prepared in accordance with the EU Common Strategic Framework, the Country-Specific Recommendations of the Council of July 2012, the Country Fact Sheet for Bulgaria by the Commission of July 2012, and taking into account Commission’s position;
- Blueprint to Safeguard Europe’s Water Resources to 2020;
- Resource Efficiency Roadmap (of the EU);
- EU Biodiversity Strategy to 2020;
- EU Strategy for the Danube Region;
- EU Strategy on Adaptation to Climate Change;
- National Strategy for Management and Development of the Water Sector in Bulgaria;
- Bulgaria’s Water Supply and Sewage Strategy 2014-2023 (WSS Strategy);
- National Strategy for the Black Sea;
- National Waste Management Action Plan, 2014-2020;
- National Strategic Plan for Phased Reduction of Biodegradable Municipal Waste Going to Landfills 2010-2020;
- National Prioritised Action Framework for NATURA 2000;
- Strategy for Disaster Risk Reduction 2014-2020;
- National Programme for Disaster Protection 2014-2018;
- National Action Plan on Climate Change for the period 2013-2020.

Continuing the efforts made during the programming period 2007-2013, Operational Programme “Environment” 2014-2020 will continue to focus on the implementation of priorities, aimed at achieving compliance with European legislation. The legal acts, requiring the largest financial resources, will be prioritised. The implementation of the programme will also contribute to fulfilment of the requirements of national legislation in the field of environmental preservation and climate change adaptation. Three of the main axes in the period 2007-2013 will be preserved and two new ones will be added (see table 15).

Table 15

Priority Axes and Specific Objectives

Priority axis	Specific objectives corresponding to the investment priority
1. Water	Specific objective 1: Protection and improvement of the water resources status Specific objective 2: Improvement of the water bodies status assessment
2. Waste	Specific objective 1: Reducing the amount of waste going to landfills
3. Natura 2000 and biodiversity	Specific objective 1: Improving the conservation status of species and habitats within the Natura 2000 network
4. Flood risk prevention and management	Specific objective 1: Increasing the flood protection of the population Specific objective 2: Increasing the landslide protection of the population
5. Improvement of the ambient air quality	Specific objective 1: Reducing ambient air pollution by lowering the levels of PM <sub>10</sub> and NOx emissions
6. Technical assistance	Specific objective 1: Strengthening the administrative capacity of the responsible structures for effective implementation of the activities for programming, management, monitoring and control of OPE 2014-2020. Specific objective 2: Increasing the information provision to the general public regarding the programme and the contribution of ESIF and ensuring transparency and information provision regarding the practical significance for all identified target groups. Specific objective 3: Strengthening the capacity of the beneficiaries of OPE for successful implementation of projects within the framework of the programme.

Source: Draft of Operational Programme “Environment” 2014-2020.

The financial resource for the implementation of OPE 2014-2020 is comparable to the financial resource for the period 2007-2013 (1.8 billion EUR). The main share of the investments (about 70%) will be allocated for the implementation of Priority axis 1 – Water. The reason for the continued concentration of resources in this field is non-fulfilment of the country’s engagements within the framework of Directive 91/271/EC regarding the treatment of urban waste water, undertaken by the country via the Accession Treaty. According to the Directive, Bulgaria had to construct waste water treatment plants for agglomerations with more than 10 000 p.e. by 2010 and for agglomerations with 2000 to 10 000 p.e. by 2014. Currently, significant lagging behind has been registered with regard to these goals and deadlines. Non-fulfilment of the goals of the environmental policy of the country will result in sanctions. Such sanctions have already been imposed on the countries (France, Belgium, Italy, Spain and others), which had to meet the requirements of the Directive by 2005.<sup>90</sup>

<sup>90</sup> The deadline for achieving compliance with the Directive is 2005. However, transitional/postponement periods have been contracted for Bulgaria.

## 6.2. Implementation of the Policies for Improvement of the State of the Environment

The assessment of the conducted policies is based on the utilised financial resources; a comparison of the achieved quantitative indicators with the policy goals; assessments of the implementation of projects by beneficiaries. The key question being addressed is how these resources have contributed to the development of public infrastructure.

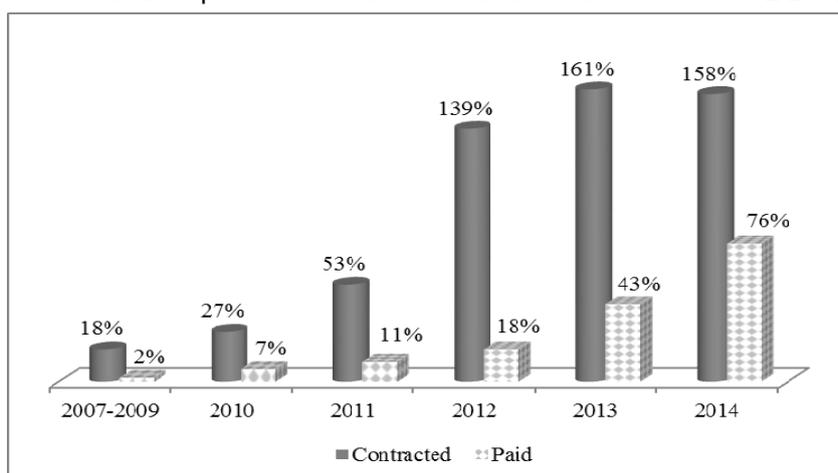
### Financial resources

The total financial package, allocated for the purposes of the implementation of OPE 2007-2013, amounts to 1 800 748 087 EUR. The distribution of the resources from this financial package by priorities is as follows:

- to Priority axis 1 (Improvement and development of water and wastewater infrastructure in settlements with over 2000 p.e. and in settlements below 2000 p.e. within urban agglomeration areas) – 71.3% of total financial resources for OPE;
- to Priority axis 2 (Improvement and development of waste treatment infrastructure) – 20.4% of total financial resources for OPE;
- to Priority axis 3 (Preservation and restoration of biodiversity) – 5.8% of total financial resources for OPE;
- to Priority axis 4 (Technical assistance) – 2.5% of total financial resources for OPE.

As shown on figure 7, the amount of contracted and paid resources within the framework of OPE 2007-2013 increases over the course of implementation of the programme.

Figure 7  
Progress in the Absorption of Resources within the Framework of OPE 2007-2013



Source: Implementation of the Operational Programmes as of 31.12.2014, [www.eufunds.bg](http://www.eufunds.bg).

During the first three years from the implementation of the programme, the level of absorption of the resources is exceptionally low, which is due to the lack of project readiness and capacity. OPE funds large projects, which have two phases of implementation – a preparatory one (technical assistance to the implementation of the project (feasibility studies, “Cost-benefit” analyses), concept and detailed designs for waste management infrastructure) and the actual construction phase (realization of the envisioned investments). The actual utilization of the resources – namely, construction of infrastructure, commenced in 2010-2011. Since 2012, the registered progress is significant and it can be anticipated that the evidenced tendency will be preserved.

The significance of OPE for financing public infrastructure can be assessed by comparing the share of the programme in the total resources, allocated for financing of environmental policies in the country, presented in table 16.

Table 16

Financing of Public Infrastructure in Bulgaria

	2010			2011			2012			2013		
	Total	OPE	Share	Total	OPE	Share	Total	OPE	Share	Total	OPE	Share
Total, including	545564	34681	6.4	511813	30091	5.9	511813	51809	10.1	743585	248377	33.4
Waste water	147291	33742	22.9	179707	29788	16.6	179707	24844	13.8	317975	197294	62.0
Including WWTP	30466	18265	60.0	82834	6973	8.4	82834	6789	8.2	92451	50348	54.5
Waste	241997	376	0.2	166455	303	0.2	166455	26056	15.7	215341	44719	20.8

Note: NSI reports data OPE as a source of financing of fixed tangible and intangible assets with environmental significance since 2010.

Source: National Statistical Institute.

The share of OPE in total funding corresponds with the signed contracts and respectively the level of absorption of the resources.

Regarding waters, the significant investments in WWTP, made within the framework of OPE in 2010, are explained by the execution of contracts for water cycles of Gabrovo and Varna, which are amongst the largest investment projects in the country.

Regarding waste, OPE comprises an exceptionally small share in total expenditures for public waste management infrastructure during the period 2010-2012. This is due to the fact that during this period OPE mainly finances technical assistance projects. In 2012-2013 the share of OPE in total investments increases. This is explained by the fact that almost all contracts for construction of infrastructure for regional waste management systems are signed during this period. Despite the fact that as of 2013 OPE comprises a share of 20.8% in total investments in waste management, the waste recovery organizations remain the largest source of financing of the investments in the field of waste management.

Level of achievement of the OPE objectives

The key indicators, specified by OPE, are used for the purposes of assessing the specific results of the policies and their impact on public environmental infrastructure (see table 17).

Table 17  
Main Indicators for Development of Public Environmental Infrastructure

Definition of the indicator	Unit of measurement	Value in base year (2007)	Value in the middle of the period (2010) <sup>91</sup>	Value at the end of the period (2015) <sup>92</sup>	Sources of information
Priority axis 1 – WATER					
Population, connected to WWTP	% of population	40.5	58.04	60.0	NSI
Assessment of the implementation as of the end of 2013	56.4				NSI
Number of residents who will be connected to the water supply and sewerage network or will make use of reconstructed/rehabilitated water supply and sewerage network	number of residents	45 000	1 295 000	1 500 000	MOEW, beneficiaries, application forms, progress reports for approved projects
Assessment of the implementation as of the end of 2012	185 911				MOEW, annual report
New and reconstructed WWTP	number	1	22	45	MOEW, beneficiaries, application forms
Assessment of the implementation as of the end of 2014	Constructed 13 WWTP (Trojan, Hisarya, Vurshets, Ruen, Provadia, Sopot, Loznitsa, Pirdop, Tundja, Yablanitsa, Byala Slatina and Kozloduj)				MOEW
Priority axis 2 – WASTE					
Population, serviced by regional waste management systems	number	467 000	1 983 264	3 967 000	MOEW, beneficiaries, application forms, progress reports for approved projects
Assessment of the implementation as of the end of 2013	More than 1.6 million				MOEW
Constructed and finalised integrated waste management systems	number	5 <sup>93</sup>	12	24	MOEW, beneficiaries, application forms
Assessment of the implementation as of the end of 2013	Constructed 1 system (Botevgrad)				MOEW

The analysis of the presented data indicates significant deviation of the achieved results from the objectives of OPE 2007-2013. The main reasons for that can be summarised as follows:

- Currently, a large share of the resources from OPE are utilised for the purposes of technical assistance to the preparation of the investment projects; this does not lead to a change in the indicators for implementation of OPE.

<sup>91</sup> The initial objective, specified during the elaboration of OPE.

<sup>92</sup> In compliance with the final date for eligibility of expenditures according to Council Regulation (EC) No 1083/2006 of July 11<sup>th</sup>, 2006, laying down general provisions on the European Regional Development Fund, the European Social Fund and the Cohesion Fund and repealing Regulation (EC) No 1260/1999.

<sup>93</sup> The value for the base year refers to the integrated systems for waste management, constructed with the financial assistance of the ISPA programme.

- Low level of preparedness at the beginning of the period 2007-2013 in several aspects as follows:
  - Lack of projects, ready for implementation at the very start of the programme; in actuality, their preparation commences after the start of the programme. The lengthy process of project preparation and implementation does not allow for the registered delay to be compensated.
  - Insufficient capacity of the Ministry of Environment and Waters, lack of detailed rules, instructions, guidelines etc. at the start of the programme; significant improvement has been registered over the course of implementation of OPE 2007-2013.
  - Lack of adequate capacity of the project beneficiaries.
- The low level of absorption of resources and, respectively, the non-fulfilment of the goal for improvement of the condition of environmental infrastructure so as to ensure preservation and improvement of the state of the environment can be explained by another reason, external to the programme – the implementation of OPE was suspended by the EC as a result of inconsistencies of the conducted public tender procedures between Bulgaria and the EC, which caused a nearly year-long “vacuum” in the system.
- The process of preparation of an investment project, which includes elaboration of feasibility studies, “cost – benefit” analyses, concept and detailed designs, evaluation of the need for environmental impact assessment, acquisition procedures and others, is very strenuous and time-consuming; the very preparation process takes about 2 years.
- Delays of public tenders as a result of both the weaknesses in the documentation, prepared by the Contracting Authorities (which are subject to evaluation by the intermediary unit of the Public Procurement Agency) and the significant number of appeal procedures, including for already signed investment contracts.
- Lengthy procedures for assessment of the documents by the Intermediate Body, prior to the signing of contracts for grant financing with beneficiaries. This is due in part to the stringent requirements, but mostly to flaws in the submitted documents. In recent years, the implementation of the programme is characterised by a more active dialogue and consultations with the municipalities; the aim is to strengthen project readiness and to ensure a high quality of the project proposals.
- According to data from a survey amongst beneficiaries of OPE during the period December 2012 – March 2013, the most significant difficulties they have encountered over the course of the application process are as follows: ensuring co-financing (19.8%), drafting/design (18.2%), preparing all required documents (18.2%), finding qualitative consultancy assistance (14.9%). Regarding the process of actual implementation, the most significant difficulties are as follows: ensuring the

availability of working capital (22.5%), conducting tender procedures (18%), selecting contractors (15.3%) and problems with the work performed by the selected contractors (11.7%).

### 6.3. Summary and Recommendations

#### Summary

1. OPE 2007-2013 complies with the national and European legislation and the strategic documents, while priority is given to the requirements, which fulfilment requires the most significant public financial resources. In that sense, the programme is effectively focused and relevant to the needs and priorities of the country and Bulgarian society.
2. The goals envisioned by OPE 2007-2013 – Priority axes 1 and 2, are not met as of the end of 2014. There are about 8 months until the deadline for completion of the implementation of the projects within the framework of the programme (October 31<sup>st</sup>, 2015) and in view of the significant progress, registered during the period 2013-2014, it can be anticipated that the lagging behind will be compensated to a significant extent. As of the end of February 2015, 129 contracts/ordinances for provision of grant funding are being implemented within the framework of Priority axis 1, and 19 contracts are executed within the framework of Priority axis 2. These contracts will lead to the construction of further 19 landfills for solid waste, with a total capacity of more than 16 million tons, as well as to the construction of separation and composting installations, transfer stations for waste, road infrastructure and others.
3. The public infrastructure, which is subject to investments by OPE, is mainly linked to the population and the improvement of the quality of life, and, to a smaller extent, to the development of the business. In that sense, it has more limited potential to induce economic growth in comparison to the transport infrastructure, for example.
4. On the other hand, however, Bulgarian contractors (consultancy and construction companies, suppliers and others) participate in the construction of environmental infrastructure, which creates employment and generates higher incomes for them. In that sense, the utilization of resources from OPE has a direct impact on economic growth.
5. In view of the country's engagements for fulfilment of the requirements of EU legislation, particularly in the water sector, undertaken with the signing of the Accession Treaty, and the limited financial resources of the country, OPE 2014-2020 will once again be of major importance for the financing of public infrastructure, the improvement of the quality of life and the generation of economic growth.

### Recommendations

1. The accumulated experience and knowledge regarding the implementation of OPE 2007-2013 need to be adequately utilised as a means to guarantee a higher level of absorption of the resources, the timely implementation of the Priority axes and the achievement of the goals of OPE 2014-2020.
2. Again, the project readiness for the new Operational Programme is low. The reason is that the integrated regional projects, which will be implemented on the entire territory of a given WSSC, will be financed during the next programming period. In case there are projects, which can be proven to meet the requirements of the regional approach, they could also be implemented with funding by Operational Programme "Environment" until 2016. Currently, one year since the beginning of the programming period, not a single regional project has been elaborated and approved, while the preparation process alone takes about 2 years. As a means to achieve minimum delay of the implementation of OPE 2014-2020, it is necessary to significantly accelerate the process and foster exceptionally sound coordination between the institutions.
3. During the next programming period, the WSSCs will be the beneficiaries, and the municipalities will play the role of partners. As beneficiaries, WSSCs will have to provide the necessary co-financing and implement large-scale investment projects. Until now significant resources were invested in training of municipal experts; WSSCs, on the other hand, lack such expert experience and skills. As a means to minimise the consequences from the change in beneficiaries, it is necessary to immediately begin training of WSSCs employees in the field of project management in compliance with the requirements for the new programming.

## **7. Common Agricultural Policy of the European Union**

### *7.1. Essence and Scope*

In reality, the Common Agricultural Policy (CAP) is the most expensive Community policy ever since its elaboration. For years now the CAP resources comprise around 50-55% of the Community budget. For the period 2007-2013 the relative share of CAP in the total Community budget is around 45%.

The Common Agricultural Policy is based on three fundamental principles:

- free trade within the Community on the basis of common prices;
- preferences for European production on the Community market;
- overall financial responsibility.

The objectives, set out in art. 33 of the Treaty on the Functioning of the European Union, are as follows: to increase productivity by promoting technical progress and ensuring a reasonable quantity of agricultural production and optimal use of the factors of production, and, in particular, labour; to ensure a fair standard of living for the agricultural community, in particular through increase in the income of farmers; to stabilize markets; to ensure the supply of goods and services on the market; to ensure supply of goods and services to consumers at reasonable prices.

As a means to meet these objectives, art. 34 of the Treaty on the Functioning of the EU envisions the establishment of a common organization of agricultural markets, which assumes the following forms depending on the specific product: common rules on competition; mandatory coordination between different national market organizations; organization of the European market.

This is the general CAP framework. The rest is a subject of national policy, which fits into this broader framework.

The main CAP instruments are: direct payments and market support provision to agricultural producers (1<sup>st</sup> pillar) and Rural Development Programme (RDP) (2<sup>nd</sup> pillar).

CAP is amended over time as a result of changes in the political, economic and social environment, in which it is implemented. In the beginning the main focus has been placed on the development of an efficient agricultural sector, which meets the needs of agricultural producers and consumers by guaranteeing the necessary production and supply of food products to the Community. In recent years, the main focus of CAP is placed on the development of rural regions, alongside the preservation of the environment and biodiversity, the production of safe and healthy foods.<sup>94</sup> For Bulgaria

---

<sup>94</sup> Programme of the priorities in the development of Bulgarian Agriculture during the period 2009-2013, a team led by Prof. Dr. Pl. Mishev, Scientific Advisory Board on Agriculture.

the development of rural regions is particularly significant, since according to the national definition of “rural areas”, 231 out of a total of 264 (87.5%) municipalities in the country are classified as such areas. The rural areas in Bulgaria represent 81% of its territory and 42% of the population.<sup>95</sup>

The environment, in which these policies are implemented, is most accurately characterized through an assessment of the “strengths” and “weaknesses” of the development of rural areas. The following characteristics can be classified as “*strengths*”: well-established system of settlements; large number of preserved vital rural communities with rich historical and cultural traditions; availability of basic road infrastructure with ensured access to comparatively small settlements in these areas. The “*weaknesses*” include: aging of the population, negative natural growth rate and outward migration; decrease of the opportunities for employment of the labour force (low educational status, limited participation in permanent training, long-term unemployment); strong dependence on agriculture and limited possibilities for employment in non-agricultural sectors; poverty and social under-development; limited access to and poor quality of the main services provided to the population of rural areas (schools, health care, distribution of informational and communication technologies, leisure and recreation); amortized and/or insufficient infrastructure (roads, water supply and sewerage networks); growing disparities between the rural and urban regions with regard to economic development, education and access to services; under-developed social capital.<sup>96</sup>

## *7.2. Direct Payments per Unit Area (1<sup>st</sup> pillar)*

### 7.2.1. Essence and scope

In Bulgaria the direct payments are distributed via the Single Area Payment Scheme (SAPS). The resources for that scheme are allocated from the EU budget. In fact, the direct payments are income support provision to agricultural producers. In Bulgaria this income is often mistaken for investment and turnover capital. Income may turn into capital only by the will of the farmer.

During the first years following the accession of the country to the EU, Bulgarian agricultural producers received more limited direct funding in comparison to the old member states. In 2012 the funding received by Bulgarian farmers comprised 60% of the amount of funding provided to the old member states, while in 2013 they received 70%. After the entire period of staged increase in payments elapses in 2016, they will receive full payment (100%). All new member states go through such a transition period.

The resources, which are smaller in amount in comparison to the funding provided to the old member states, are transferred to the Regional Development Programme (RDP). This is very important to highlight, since the prevalent opinion in Bulgaria is that

---

<sup>95</sup> National Strategy Plan for Rural Development 2007-2013, p. 34-35.

<sup>96</sup> Ibid, p. 44.

our country is disadvantaged in comparison to the older member states of the EU. The problem is that while direct payments are received solely because the beneficiary is an agricultural producer and cultivates the respective amount of land, in the case of RDP the elaboration of a project within the framework of the respective axis and measure is required. The low administrative capacity of the Bulgarian administration and the lack of preparedness of the agricultural producers impede the absorption of the resources by the RDP. The problem relating to the limited resources, which Bulgaria receives in comparison to the old member states of the Union, actually lies therein.

### 7.2.2. Financial resources of Single Area Payment Scheme in Bulgaria

Besides the flat rate, the direct payments per unit of arable agricultural land include: payments to farmers in constrained mountain areas (HP1) – Measure 211 of RDP 2007-2013; payments to farmers in constrained areas, other than mountain areas – Measure 212 of RDP 2007-2013; agri-environmental payments (AEP) – Measure 214 of RDP 2007-2013, payment within the framework of NATURA 2000 and payments, relating to Directive 2000/60/EC – for agricultural lands – Measure 213 of RDP 2007-2013.

Table 18

Absorption of Funds under SAPS

Year	Payments made (million BGN)	Financial package (million BGN)	Absorption (%)
2007	324.2	359.3	90
2008	407.7	486.6	84
2009	518.1	566.8	91
2010	573.0	638.9	90
2011	723.2	782.4	92
2012	912.6	958.1	95
2013	1151.6	1436.8	80
2014	2546.2	2869.9	89
Total	7156.6	8098.8	88

Source: Operational statistics of State Fund "Agriculture".

These payments further complicate the mechanism for indexing the land and for the person, carrying out its cultivation. In this case, the problems relate to both the delimitation of the borders of the respective plots and the fulfillment of the requirements for absorption of the respective resources. For example, a large number of the applications for natural meadows in mountainous areas were declined, particularly in the beginning, because of non-compliance with the agro-technological requirements. Tying the production of hay to the availability of animals was never envisioned. As a result, one of the statistics of Eurostat lists Bulgaria as the largest producer of natural grass hay as an end product. In other countries this hay is a raw material for livestock breeding.

As a whole, this led to a medium level of absorption of the envisioned resources – for the entire period the fund absorption level is about 88%.

### 7.2.3. Single Area Payment Scheme in Bulgaria (2014-2020)

The Single Area Payment Scheme, as a simplified scheme for support provision via allocation of direct payments on the basis of the area, proved to be an efficient and easily applicable system for income support provision to agricultural producers. However, a series of distortions during its implementation need to be addressed.

The reform of CAP, carried out within the European Union, conditions the introduction of changes and the implementation of a multilayered structure of direct payments in the Republic of Bulgaria for the period 2014-2020.

The goal is for the introduced schemes, requirements and specific national solutions to support the development of the agricultural sector and to contribute to the resolution of a series of problems.

More adequate and fair allocation of the payments will be achieved via the utilization of specific policy instruments.

#### *Scheme for redistributive payment*

The implementation of the **scheme for redistributive payment** could result in more uniform distribution of direct payments amongst the individual groups of beneficiaries. This scheme provides a mechanism for redistribution of the resources, without carrying a risk of global loss of financing as a result of non-absorption of the budget. Effective and efficient allocation of resources to small and medium-sized agricultural producers could also be achieved via the instrument for redistributive payment. This could positively affect the structure of redistribution of direct payments and improve the support provision to the majority of agricultural producers, which are beneficiaries of the Single Area Payment Scheme.

The implementation of the scheme for redistributive payment will contribute to the elimination of the practice whereby a small number of large beneficiaries receive the larger share of direct payments. A mechanism will be further elaborated to identify and expose people who have artificially created conditions for receiving the maximum amount of financial support through division of farms. This will be achieved through an examination of the interrelation of agricultural producers, registered in the State Fund "Agriculture".

With the aim of avoiding potential disproportional allocation of the resources to large beneficiaries, the European Commission envisions a reduction of the size of the payment and an introduction of a ceiling on the subsidies under SAPS for one beneficiary – by 5% for the sums between 150 000 and 300 000 EUR, and by 10% for the subsidies above 300 000 EUR.

### Direct payments to active farmers

The main characteristics of the definition of an active farmer are presented in the Regulation for Direct Payments. The definition aims to disallow physical or legal persons to receive direct payments if their agricultural lands are predominantly (more than 50%) and naturally maintained in a condition, which allows for grazing and cultivation, and have not been subjected to minimum agricultural activities. The deadline for defining the minimum agricultural activities was January 31<sup>st</sup>, 2015.

A list of physical and legal persons, who cannot receive direct payments, will also be presented – these are persons, who operate airports, railway stations, water facilities, real estate services, playgrounds and recreation areas.

An additional criterion will be applied to Bulgaria – agricultural activities must not constitute an insignificant part of the economic activity of the applicants for direct payments. The maximum requirement, permissible under European legislation, will be applied to the minimum threshold of the income from agricultural activity. In addition, beneficiaries of direct payments will be required to register themselves as agricultural producers in compliance with national legislation.

### Schemes for coupled direct support provision

One of the main priorities for the country during the negotiations on the Reform of CAP was the coupled direct support provision. Up to 6.5% of the package of direct payments can be allocated to specific coupled support provision.

The implementation of the **Small Farmers Scheme** is also envisioned for farms of less than 5 decares; they will receive a subsidy of up to 1250 EUR. The goal of the provided financial support is to increase the competitiveness of the small farms and to ensure complementary income for even the smallest agricultural producers. The introduction of the new scheme for direct payments to small agricultural producers is expected to increase the competitiveness of small farms, as well as to provide income and employment support.

### Special preferences for young farmers

The payments to young farmers are envisioned to be for the first 300 decares of their farms so as to ensure consistency with the Scheme for redistributive payment. The applicants for subsidy provision within the framework of the scheme for young farmers need to prove that they have the respective skills and knowledge: completed secondary education in the field of agriculture or veterinary medicine or secondary economic education with an agricultural focus; and/or higher education in the field of agriculture or veterinary medicine or higher economic education with an agricultural focus; and/or a certificate for a completed course or diploma for acquired professional qualification in the field of agriculture. In this way, compliance is achieved with the requirements of the

Rural Development Programmes and the risk of artificially created conditions for support provision is reduced.

*Reducing the administrative burden over conscientious farmers*

The administrative burden over conscientious farmers needs to be reduced. This would ease the adaptation of the farmers to the multitude of new requirements and would decrease the risk of errors and non-absorption of the resources from the financial package for direct payments. The introduction of a minimum threshold of 5 decares per farm will allow for the allocation of direct payments to even the smallest farms, including the ones ranging between 5 and 10 decares.

*Increasing the contribution of agriculture to the preservation of the ecological balance on the territory of Bulgaria*

One of the objectives of the new CAP is the improvement of the ecological parameters via a mandatory “ecological” component of direct payments, such that would support agricultural practices, which are favorable from the standpoint of the climate and the environment and are applicable to the entire EU. The farmers, eligible to receive payments within the framework of the Single Area Payment Scheme, within their agricultural plots need to carry out agricultural practices, which are favorable for the climate and the environment and comply with the respective ecological requirements. The diversification of crops entails mandatory crop rotation within the farm with the aim of avoiding monoculture production.

Agricultural producers within the Natura 2000 must not cultivate or plow permanent grasslands (PG), situated in these areas. The state needs to guarantee that the ratio of sensitive PG to the total agricultural plot, as declared by agricultural producers, does not decrease by more than 5%. The aim here is to meet the requirements of the Regulation for preventing the decrease of the share and area of permanent grasslands in the country, since these landscapes are of particular ecological significance. The ban on plowing of permanent grasslands constitutes a non-financial measure for support and stimulation of the development of the “Livestock Breeding” sector, which is prioritized by national policy. The ban on plowing allows for the preservation of permanent grasslands and hence ensures the necessary basis for development of pastoral livestock breeding.

*7.3. Policies for Development of Rural Areas in the Republic of Bulgaria (2<sup>nd</sup> pillar)*

*7.3.1. Scope and management*

The Bulgarian Rural Development Programme (RDP) for the first programming period (2007-2013) aims at the development of competitive agriculture and forestry, innovations in the food processing industry, preservation of the natural resources and the environment and encouraging employment and improving the quality of life in rural areas.

The Programme formulates the following priority policies for development of rural areas in Bulgaria:

Axis 1 – Increasing the competitiveness of agriculture, forestry and the food processing industry;

Axis 2 – Protection and preservation of the environment;

Axis 3 – Improving the quality of life and diversification of job opportunities in the rural areas;

Axis 4 – Leader;

Technical assistance;

Complements to direct payments.

Specific measures have been elaborated for the purposes of implementing these policies. They can be grouped as follows:

**Under Priority axis 1** – a total of 17 measures, from which:

- 10 relating to *agricultural holdings* (setting up young farmers; modernization of agricultural holdings; restoring agricultural production potential damaged by natural disasters and introducing preventive actions; supporting farmers to meet the standards, stemming from EU legislation and the implemented schemes for quality of food products, etc.; setting up producer groups and supporting semi-sustenance farms and others);
- 4 relating to *agriculture, food processing and forestry* (cooperation for development of new products and technologies; infrastructure related to the development and adaptation of agriculture and forestry; adding value to agricultural products and the forest and others);
- 2 relating to *service provision* (consultancy, managerial and farm advisory services in the field of agriculture and forestry);
- 1 relating to professional training, information activities and diffusion of knowledge.

**Under Priority axis 2** – a total of 13 measures, from which:

- 6 relating to *agricultural holdings* (natural handicap payments for farmers in mountain areas, areas with handicaps other than mountain areas; agro-environmental payments; humane treatment of animals; first afforestation of agricultural lands; initial establishment of agroforestry systems on agricultural lands);

- 4 relating to *forestry* (first afforestation of non-agricultural land; preservation of forests; recovery of the forestry potential and introduction of preventive measures and supporting non-productive investments for forests);
- 2 relating to *Natura 2000*;
- 1 for supporting *non-productive investments* (for forests).

**Under Priority axis 3** – a total of 8 measures, from which:

- 5 relating to the *improvement of the quality of life* (basis services for the economy and rural areas; renewal and development of villages; preservation of rural heritage; professional training and information provision; acquiring skills and stimulating public activity in view of the preparation and implementation of the local development strategy);
- 3 relating to *diversification of agriculture* (development of non-agricultural activities; support for the creation and development of micro enterprises and encouragement of tourist activities in these territories).

**Under Priority axis 4** – a total of 6 measures, relating to: implementation of local development strategies; inter-territorial and transnational cooperation; management of local initiative groups; acquiring skills and promoting public activity within the respective territory.<sup>97</sup>

*The main focus of the policies for development of rural areas, relating to the development of competitive agriculture, food processing industry and forestry, preservation of natural resources and the environment in rural areas and improvement of the quality of life and diversification of the opportunities for employment in the sector, can be characterized as positive guidelines for development of these areas. The aim is to gradually overcome the existing problems in these areas. However, their status does not provide grounds for optimism regarding achievement of significant progress with regard to the implementation of RDP. The reasons for that are complex. Part of them are linked to naturally occurring processes, concerning agricultural crops and animals, which can hardly be accelerated, while others require significant resources, etc. The implementation of RDP in the period 2007-2013 marks the beginning of a necessary process – a change in the development of rural areas in the country.*

The understanding of the essence of RDP and the policies for development of rural areas in Bulgaria, which stem from it, raises an important question – to what extent these policies are synchronized with EU legislation, on the one hand, and with the national policy and characteristics of rural areas in the country, on the other hand.

The RDP is synchronized with:

---

<sup>97</sup> Rural Development Programme (2007-2013), p. 235-237.

- The National Strategy Plan for Rural Development (2007-2013). It formulates three main goals: developing competitive agriculture and forestry and a food-processing sector based on innovations; protecting natural resources and environment of the rural areas; promoting the creation of jobs and improving the quality of life in the rural areas. *The National Strategy Plan for Rural Development (2007-2013)* is elaborated in compliance with *the main EU priorities*, relating to the creation of jobs, growth and sustainability (Lisbon, Gothenburg); *other EU policies* (consistency, preservation of environment and coordination with the structural funds and management of natural resources); *the main Community priorities regarding rural development* (increasing the competitiveness of agriculture, food processing and forestry; protection of the environment; creating local capacity for employment and diversification of the economy; consistency of programming; complementarity between structural policy, employment policy and rural policy).<sup>98</sup>
- *The National Strategic Reference Framework for the period 2007-2013*. It formulates the following priority goals: improvement of the basic infrastructure; increase of the quality of human capital with a focus on employment; promotion of entrepreneurship, a favorable business environment and sound management; support of balanced territorial development.<sup>100</sup>

*The presented facts indicate that the policies for development of rural areas in Bulgaria are based on the strategic priorities of the Community and the legislative framework in the Republic of Bulgaria.*

- The *management* of RDP is carried out by the “Rural Development” Directorate at the Ministry of Agriculture and Foods (MAF) and by the Paying Agency at the State Fund “Agriculture”, which 28 district directorates implement the individual measures for financial support provision by the programme as a whole. They approve, process and allocate payments relating to the specific submitted applications. During the programming period, the activities regarding the management of the programme are focused on: establishment of a Committee for monitoring of the programme, Information Centre and Reception Hall at MAF; elaboration of guidelines for application within the framework of the Programme, which specify the opportunities for application and the conditions for support provision; information provision to potential beneficiaries and the general public about the programme, using various media (national and regional media, print media, web platforms and others); efficient and transparent management of the utilization of the resources from European funds on the basis of a sound system of control and assessment of the projects, applying for European financing; strengthening the measures for transparency and publicity of the announcement of the procedures for financial support provision; assessment and updating of the Regulations of the Managing Authority and of the Paying Agency; improving the procedures for resource allocation within the framework of RDP via decentralization of the processing and contracting of projects and optimizing the

---

<sup>98</sup> National Strategy Plan for Rural Development (2007-2013), p. 45-47.

<sup>99</sup> Rural Development Programme (2007-2013), p. 92-95.

<sup>100</sup> National Strategy Plan for Rural Development (2007-2013), p. 63, 66.

implementation of the delegated measures by the Paying Agency; amendments of national legislation.

*On the basis of the presented main aspects of the management of RDP, it can be concluded that during this first period, a lot has been achieved with regard to the technology for elaboration of projects, the information provision relating to its implementation, the designation of management authorities, the approbation of mechanisms for its management, i.e. a sound basis has been created, which allows for consistency and further development during the following periods.*

The responses of surveyed beneficiaries of RDP, presented in a sociological study, assigned by the MAF, provide interesting information.<sup>101</sup>

To a question, relating to the lack of motivation for participation in projects within the framework of the RDP, the respondents list the following main reasons in order of decreasing importance: they are not interested; they have a different profession; they expect a lot of bureaucracy; the requirements are tough and they cannot meet them; they have no specific ideas for projects; the administrative obstacles are significant; they fear that the banks will not grant them the necessary loans; they are not sufficiently informed. To a question, relating to the obstacles, which discourage beneficiaries from participation or significantly impede their participation in the Programme, they list the following main reasons in descending order of significance: lack of clarity about the procedure for assessment and approval of projects; high consultancy expenditures; delayed allocation of the grant funding; overly complex procedures. These responses indicate that the problems with the information provision and administrative management of RDP are not amongst the most significant ones, i.e. they are not the main obstacles to the implementation of the Programme. The problem is linked rather to the potential of the beneficiaries of the program, their age, educational and other status. Regardless of the subjectivity of the responses, provided by beneficiaries within the framework of various sociological studies, they should be used for the purposes of further analyses and assessments and can be used as guidelines for the improvement of the management of RDP.

### 7.3.2. Financial resources for implementation of the policies for development of rural areas in Bulgaria

Within the EU, the European Agricultural Fund for Rural Development (EAFRD) is the main financial resource for implementation of the policies for development of rural areas in Bulgaria, as formulated by the Rural Development Programme (2007-2013).

The budget of the RDP (2007-2013) for the period amounts to a total of 3241 million EUR, from which 2609 million EUR from EAFRD and 632 million EUR from the state budget. Allocation of the contribution of EAFRD by years is as follows: in 2007 – 244 million EUR, in 2008 – 337.1 million EUR, in 2009 – 437.3 million EUR, in 2010 – 399.1

---

<sup>101</sup> Representative sociological study to determine the level of interest of current and future beneficiaries by specific measures from RDP for the 2009-2010 campaign.

million EUR, in 2011 – 398.1 million EUR, in 2012 – 397.7 million EUR, and in 2013 – 395.7 million EUR.<sup>102</sup>

The relative share of the resources from EAFRD in the total public resources for the programme is 80.48%. Table 17 indicates that over 80% of the resources are allocated to the first three Priority axes, while the leading position is assumed by Axis 1 (Increasing the competitiveness of agriculture, forestry and the food processing industry). *The resources for these axes are used to establish an integrated approach towards the development of rural areas, which unites the lines of production, the environment and the quality of life within them.*

Table 19

Distribution of the Resources from EAFRD

Allocation	Million EUR	%
1. Axis 1	963.9	36.9
2. Axis 2	637.5	24.4
3. Axis 3	702.1	26.9
4. Axis 4	61.6	2.4
5. Technical assistance	98.5	3.8
6. Complements to direct payments	145.5	5.6
TOTAL	2 609.1	100.0

Source: Data from the Rural Development Programme (2007-2013), p. 234.

The absorption of the financial resources within the framework of RDP is expressed for the individual Priority axes as the relative share of the resources, absorbed by the budget of the respective Priority axis or measures. The ranking of the level of absorption of resources is as follows:

- **First place:** Axis 1 (Increasing the competitiveness of agriculture, forestry and the food processing industry) – 65% of budget of the axis. The absorption of resources is highest for the following measures: Measure 112 (Setting up of holdings of young farmers) – 77%; Measure 121 (Modernization of agricultural holding) – 72%; Measure 123 (Adding value to agricultural and forestry products) – 54%.
- **Second place:** Axis 3 (Improving the quality of life and diversification of job opportunities in the rural areas) – 60% of the budget of the axis. The absorption of resources is highest for the following measures: Measure 321 (Main services for the population and the economy of the rural areas) – 64%; Measure 322 (Reviving and development of the settlements) – 64%; Measure 312 (Support for the creation and development of micro enterprises) – 55%.
- **Third place:** Axis 2 (*Protection and preservation of the environment*) – 65% of the budget of the axis. The absorption of resources is highest for the following measures: Measure 214 (Agri-environmental payments) – 67%; Measure 211 (Payments to farmers in constrained mountain areas) – 55%.<sup>103</sup>

<sup>102</sup> Rural Development Programme (2007-2013), p. 234.

<sup>103</sup> Agricultural Report 2014, p. 106.

The assessment of the implementation of RDP indicates that as of December 31<sup>st</sup>, 2014 the budget of the programme amounts to 615.7 million EUR, from which 80.5% is EU financing and the remaining 19.5% are national co-financing. The transferred sums represent 75.3% of the budget of programme.

*The ranking of the measures according to the level of absorption of financial resources indicates that the implementation of the policies for development of rural areas in Bulgaria has been adequately initiated, with utilization of the resources for the purposes of improvement of the production sectors, the main elements of the infrastructure and the environmental payments. These are sound foundations, consistent with the existing situation, which provide opportunities for subsequent transition to the other areas of utilization of the financial resources, embedded in the other measures from the Priority axes.*

### 7.3.3. Rural Development Programme (2007-2013) – basis for consistency with the next programming period (2014-2020)

The EU policy for rural development changes in response to the arising challenges. The most recent reform process, which accompanies the re-formulation of the Common Agricultural Policy of the EU, was largely completed in December 2013 with the approval of the main legislative acts in the period 2014-2020. Three long-term strategic goals of the EU policy for development of rural areas in the period 2014-2020 can be formulated in compliance with Europe 2020 and the general objectives of CAP: promoting competitiveness of agriculture; ensuring the sustainable management of natural resources and climate-related activities; achieving balanced territorial development of the economies and communities in rural areas, including creating and maintaining employment.

The 2013 reform preserves many of the main characteristics of the policy for rural development in the period 2007-2013, which is indicative of the consistency between them. More specifically, as in the past, the policy will be implemented via national and/or regional programmes for rural development with a scope of 7 years.

As a whole, however, the 2013 reform introduces some changes: improvement of the strategic approach towards the elaboration of the Rural Development Programmes; reinforcing the content of the measures for development of rural areas; simplifying the rules and/or reducing the respective administrative burden, wherever possible; closer link between the policy for development of rural areas and the other European structural and investment funds.

The national legal framework for implementation of RDP during the next programming period 2014-2020 is synchronized with the fundamental principles of the following important strategic documents: *Government Programme for Stable Development of the Republic of Bulgaria* (formulates the following main objectives – creating conditions for development of the country and accelerated economic growth (Objective 5) and efficient and transparent management of European resources (Objective 6). Priority 14.8 from it relates to “sustainable development of rural areas and stabilization of human resources

with a focus on the small and medium-sized businesses);<sup>104</sup> *Statehood, Development, Justice. Economic and social priorities of the Government* (formulates the following main tasks – introduction of additional measures for guaranteeing the absorption of resources and implementation of projects within the framework of the programmes for the period 2007-2013 and preparation of the entire package of documents for the new programming period);<sup>105</sup> *Agricultural Report 2014* (formulates the following *priority* of the MAF with regard to the policy in the agricultural sector – “mobilization of the potential of rural areas for achievement of balanced social and territorial development” and the following *objectives* – “diversification of the economy of rural areas and high level of employment of the local population” and “improvement of the quality of life in rural areas”).<sup>106</sup>

*The experience, accumulated via the implementation of RDP, and the identified consistency between the two periods of implementation of the policies for development of rural areas in Bulgaria provide grounds for optimism with regard to their further expansion and development.*

#### 7.4. Summary and Recommendations

The following *conclusions* may be drawn:

1. As a whole, Bulgaria’s membership in the EU transforms the Common Agricultural Policy into a decisive factor for the development of Bulgarian agriculture and the rural areas. It attributes a level of stability to the policy and the economic environment. Historically, in less than 7 years, immense financial resources entered the country within the framework of CAP. There is no analog for that in the 130-year contemporary history of the country. To a large extent, Bulgaria managed to absorb the envisioned resources within the framework of the CAP of the EU. The average degree of absorption in the period 2007-2014 is around 80%, which is close to the average value of the indicator for the European Union as a whole and, particularly, for the new member states.
2. The period of absorption of the resources from the European funds coincides with the clearly pronounced decline of economic growth. The small amount of GDP generated by agriculture exactly coincides with the period, characterized by the most significant and increasing financial support provision for the agricultural sector in the contemporary history of the country. In absolute value, the Gross Value Added (GVA) generated by the agricultural sector is around 4 billion BGN at constant prices from 2010. Between 2008 and 2013 the value added generated by the sector decreases. The GVA, at constant prices, as a whole, decreases and reaches a level of 1/4 of the average one, registered during the period 1988-2006. Respectively, the share of agriculture in total GVA falls below 5% for the first time since statistical data about GDP generated in the country is available. This is due to that fact that, as mentioned, CAP only outlines the framework of the general objectives, rules and

---

<sup>104</sup> Government Programme for Stable Development of the Republic of Bulgaria for the period 2014-2018, p. 5, 13.

<sup>105</sup> *Statehood, Development, Justice. Economic and social priorities of the Government*, p. 16.

<sup>106</sup> *Agricultural Report 2014*, p. 214.

instruments of the policy, while the rest is subject to national policy, which fits within this broader framework.

It can be definitely stated that Bulgaria could not formulate a national objective and respective policy for achieving growth in this important sector of the economy and social development.

*In brief, the problems are not as much linked to the mechanisms for absorption of the resources; they rather stem from the formulation and positioning of national priorities for development of the agricultural sector and the food processing industry, as well as from the development of rural areas in the country!*

3. The main goal of the direct payments, allocated via CAP of the EU, is income support provision to agricultural producers through the Single Area Payment Scheme. According to the EU practice, during the first years, following Bulgaria's accession to the EU, agricultural producers receive more limited direct payments in comparison to the old member states. Only after the entire period of staged increase of the payments to agricultural producers elapses in 2016, farmers in the country will receive direct payments, which completely correspond with the ones transferred to agricultural producers in the other EU member states. This does not mean that farmers in Bulgaria are placed in a disadvantaged position. The resources from the direct payments, up to their full amount, enter the RDP. The fact that projects need to be elaborated as a means to absorb these resources is another issue. The logic here is that resources are allocated for the purposes of adapting the sector and the rural areas to the requirements of CAP and achieving accelerated improvement of the different types of infrastructure therein.
4. Alongside that, there are various deformations in the implementation of the Single Area Payment Scheme:
  - The monitoring of the applicability of the mechanisms of CAP for direct payment provision indicates that during the last 7 years 78% of the financial resources are absorbed by a mere 3-4% of the agricultural producers. This differentiation between large and small holdings further strengthens the bipolarity of agricultural systems, as it becomes more clearly pronounced. Large agricultural holdings accumulate significant incomes and expand their economic boundaries. The absorption of direct payments allows the large holdings (specializing in monoculture agriculture, mainly grains and sunflower) to expand even further in comparison to the EU average. The lacking or insufficient financial support provision to small and medium-sized farmers accelerates the on-going processes of decrease of the number of small holdings, regardless of their specialization, and hinders employment in the sector.
  - EU integration implies the production of products with high added value. The geographical location of Bulgaria allows for the production of products from the so-called Mediterranean area. This implies the production of grapes, fruits and vegetables for fresh consumption, wine, sheep and goat meat, sheep's milk and products thereof, and essential oil products. We have the capability to produce foods with high added value. The practice over the last 20 years is indicative of the exact opposite – we developed precisely the areas of agriculture, in which we cannot achieve competitiveness. The focus was placed on intensive crops,

mainly grain. In Bulgaria, resources flowed to highly intensive lines of production of grain and industrial crops, i.e. the development was inversely proportional to the production of goods with high added value.

5. The policies for development of rural areas in Bulgaria during the period 2007-2013 are of major importance for both the economy of Bulgaria and the individual regions. The foundations for future changes in development are laid via these policies, which have complex characteristic, since within them are intertwined problems of the economic, social and ecological area.
6. The resources from the European Agricultural Fund for Rural Development are the main financial source for implementation of the priority policies in the field of rural development. Their partial absorption during the period 2007-2013 and the areas, in which they are assimilated, indicate that at this stage they are necessary precisely for the purposes of laying the foundations for future changes.
7. There is consistency between the two programming periods with regard to the policies for development of rural areas in the direction of synchronization of the fundamental principles of important strategic documents at European and national level, and re-formulation of the priorities and goals in compliance with the evidenced changes in the environment, in which these policies are implemented.

*Recommendations* may be formulated with regard to the following:

1. The reform of the CAP of the EU during the period 2014-2020, which aims at the implementation of better instruments and practices (scheme for redistributive payment, progressive reduction of payments, schemes for production-related direct support provision, special preferences for young farmers, direct payment allocation solely to active farmers and others) and the experience accumulated in Bulgaria regarding the direct payments, will contribute to overcoming problems and covering "blank spots".
2. Production of food products with high added value, i.e. supply of expensive foods, is the way for Bulgarian agriculture to become competitive. The quality of Bulgarian oriental tobacco, grown in the Rhodopi mountains, is uncoupled. Roses can be grown everywhere, but the essential oils from the Rose valley are most valuable.
3. The structural policy in agriculture should support the prioritized creation of a broad sector of vital family farms as the basis for sustainable production. Such policy would not only create prerequisites for stabilization of agricultural production, but would also contribute to the development of rural areas.
4. The implementation of the Rural Development Programme during the next period is linked to the need to establish conditions of higher motivation and coordination between the beneficiaries. Furthermore, efforts should be made to improve the procedure for approval and financing of projects.
5. During the period 2014-2020, the policies for development of rural areas in Bulgaria should use, as a broad basis, everything positive, which was created during the period 2007-2013 (legislative, management, organizational and other infrastructure). They should be adapted to the changed situation and should build upon current achievements in compliance with the respective formulated priorities and goals.

## **CONCLUSIONS AND RECOMMENDATIONS FOR DEVELOPMENT OF ECONOMIC POLICIES**

Our study presents the development policies within the frameworks of Operational Programmes, co-financed by European funds in the period 2007-2013, and the achieved results, assessed on the basis of the planned goals, exhausted financial resources and the changes in the economic development of the country.

The conducted assessments indicate that the impact of the economic policies over the factors of production (labour, human capital, public and private capital, R&D and innovations) differs in strength and intensity. For some of the production factors (labour, public capital) the positive influence is more clearly pronounced and directly translates into an increase in GVA. Other factors (human capital, R&D and innovations, changes in public physical capital through improvement of the environment) are characterized by a more intermediate impact; the changes in them are less rapid, while the effects on GVA will manifest in the medium and long term.

Generally, the implemented policies have played a positive role in fostering economic development through the development of the production factors. The results from the implementation of some policies are unsatisfactory in view of the planned goals, the fluctuations in the main macroeconomic indicators and the positioning of the country within the European economic environment. There are also policies, for which it was necessary to re-define the goals and redistribute the resources and respectively the criteria for assessment; this has consequently delayed in time the manifestation of their effects.

The diversity of achieved results and encountered problems allows for the formulation of the conclusion that, *from the standpoint of the goals for development*, the policies, embedded in the Operational Programmes, are successful whenever they are aimed at *clear, feasible goals* for the course of a 7-year period. The successful policies are the ones, bound to and *built upon* the achievements from preceding periods, as well as the ones that synchronize the development goals in the long term. "Feasible goals" do not mean lowered criteria for the achieved results, but rather approved standards and average European levels of development.

European co-financing ties the policies within the framework of the Operational Programmes with the European policies for achieving specific goals for development. In that sense, the Operational Programmes seek a *balance in the reconciliation of national and European interests*, whereby the implemented policies do not solely result in the maximum possible improvement of the factors of production, but also create effective stimuli for economic prosperity.

The utilization of the European financial mechanisms for co-financing of the policies implies a *sustainable strategy and commitment to the development of the country in a specific field*. The implemented policies can lead the way towards economic development, regardless of cyclical impacts, only if they are based on clearly formulated national goals for development (as is the case of competitiveness and transport).

It is necessary for *the sector and factor policies to be tied together within the framework of overall economic development*. For example, the policy for encouraging innovations needs to be tied to the one for fostering R&D; the policy for increasing the quality of human capital through education and lifelong learning needs to be coordinated with the labour market demand; the policy for activation of the labour resources will find no economic realization unless it is followed by sustainable employment, etc.

The policies, which are co-financed by the European funds and conducted via the Operational Programmes in the period 2007-2013, target important economic development goals, such as improvement of the quality of human capital and labour market inclusion; increasing the competitiveness of the Bulgarian economy; development of transport communication and connection with the European transport corridors; improvement of environmental preservation as a means to improve the quality of life; development of agriculture as an important factor of growth. These main goals are decomposed into a multitude of specific policies, which impact the factors of production to differing extents.

Impact of the Policies Conducted within the Frameworks of the Operational Programmes 2007-2013 over the Factors of Production as of 2014

Factors of production	Policies and amount of co-financing by European funds	Results and effects over the factors of production
Labour	<i>Promotion of economic activity and development of inclusive labour market – 216.6 million EUR</i>	<b>Result:</b> 360 064 people included in employment and training. <b>Effects</b> over the participation in employment are <b>partial</b> ; a small share of the unemployed and inactive people has been included in employment and training. During the period 2007-2013 employment at the macro level decreases by 300 000 people. The effects are <b>temporary</b> and solely encompass the groups of participants in the programmes and the duration of the programme.
	<i>Raising labour productivity and adaptability – 185.7 million EUR</i>	<b>Result:</b> 41% of the surveyed employers claim that their employees have increased their labour productivity as a result of participation in training within the framework of the programme. At macro level, <b>the effects are partial</b> – labour productivity increases, but consequently employment decreases; adaptability improves in response to the momentary conditions of the labour market, without any medium or long-term effect.
Human capital	<i>Improving the quality of education and training in compliance with the demand of the labour market – 206.4 million EUR</i>	There are no quantitative measurements of quality. <b>The goals are partially achieved</b> – there are significant problems with the quality of education; the link between education and the demands of the labour market remains weak.
	<i>Improving the access to education and training – 165.1 million EUR</i>	<b>Results:</b> Decrease of the share of early school leavers, increase of the share of people with secondary education, minimal increase of the participation in lifelong learning. The goals are <b>partially achieved</b> – steps have been taken to ensure easy access; the share of early school leavers decreases. Participation in lifelong learning remains insignificant.
R&D and	<i>Development of a</i>	At macro level, <b>the effects of the innovations and</b>

innovations – by PA	<i>knowledge-based economy and innovation activities – 210.6 million EUR</i>	<b>knowledge</b> on the conducted R&D activities are limited: the conducted policies have an unsatisfactory impact over the country's positioning in the international scientific and innovative space. The stimulation of R&D and innovation activities in enterprises is characterized by limited success. There is a lack of activities aimed at protecting the industrial property rights of Bulgarian enterprises and research organizations and at the development of a favourable pro-innovative infrastructure.
	<i>Increasing the efficiency of enterprises and promoting supportive business environment – 529 million EUR</i>	The implementation of the policies for encouraging innovations <b>does not yet constitute a basis for</b> technological modernization of the enterprises and development of a pro-innovative business environment. <sup>107</sup>
	<i>Provision of financial resources for developing enterprises – 350 million EUR</i>	From the standpoint of the utilization of the resources, the conducted policies are successful, i.e. they are characterized by <b>high level of absorption of the resources</b> . A financial instrument has been elaborated, which effects will manifest in the medium and long term.
	<i>Strengthening the international market positions of the Bulgarian economy – 37.7 million EUR</i>	<b>Results:</b> 29 completed investment projects in target sectors (with a target of 15 projects). The policy for encouraging innovations in enterprises encompassed 46 supported laboratories (with a target of 33); new and improved business services, provided by the national quality infrastructure (NQI) organizations, are 40 in total (with a target of 77). <b>The effects of the implemented policies</b> on the competitiveness of the economy <b>are not yet clearly pronounced</b> .
Public physical capital	<i>Construction, development, electrification, modernization and rehabilitation of railway lines – 528 million EUR</i>	<b>Results:</b> 18 km of new railway lines are brought into operation; 180 km of railway lines are electrified and rehabilitated. The effects include decrease of travel time for passengers and cargo and decrease of the expenditures for maintenance of the lines.
	<i>Development of road infrastructure – 727.6 million EUR</i>	<b>Results:</b> 178.7 km of new highways are constructed. Favourable results are achieved via the construction of highways and other road infrastructure (overpasses, underpasses, road connections, bridges). 25 km of new first class roads have been constructed. The construction of road infrastructure has a <b>direct and multiplying effect</b> on the economy and living conditions: increase of employment and respectively of GDP, shortening the freight and travel time, and the expenditures for fuel and repairs, which is a prerequisite for improving the competitiveness of Bulgarian enterprises, increasing the amount and share of transit of road traffic and cargo through the country, reviving agriculture and tourism, creating opportunities for European integration of the country and others.
	<i>Improvement of</i>	<b>Results:</b> 1 stage of expansion of the Sofia subway has been

<sup>107</sup> Modernization of technologies, provision of accessible and qualitative consultancy and informational services to the business, decreasing energy intensity and diversifying the energy sources, used by enterprises, increase of the efficiency of production and the market representation of enterprises by taking advantage of clusters and business networks.

	<p><i>intermodality for passengers and freight – 283.2 million EUR</i></p>	<p>completed. 13 new subway stations have been constructed and brought into operation, as well as 13 km of new subway lines; 18 new trains provide transport services.  <b>Effects:</b> Increase of the transport of passengers via public transportation – the number of passengers transported on a daily basis in Sofia increases from 185 000 to 380 000, while automobile traffic decreases by 20%. The citizens of the capital save over 90 000 hours of travel time as a result of the availability of the faster transport service that is the subway.</p>
	<p><i>Improvement of the conditions for navigation – 29.5 million EUR</i></p>	<p><b>There are no significant results and effects</b>, but there are also no developed activities in this area; <b>there is a need for synchronization of the policies</b> with neighbouring countries.</p>
	<p><i>Policies under OPE – 1365 million EUR have been paid as of the end of 2014, including for policies for:                  Protection and improvement of the condition of water resources – 1046 million EUR</i></p>	<p><b>Result: partial improvement of the state of public infrastructure</b> via the construction of 13 treatment plants. The majority of the resources under OPE are utilized for the purposes of technical assistance to the <b>preparation of investment projects</b>, which is why the changes in the values of the indicators, indicating the level of fulfilment of the goals of OPE, do not change significantly. The impact over the respective factor of production (public physical capital) will manifest in the long term.</p>
	<p><i>Improvement of waste management and soil protection; Decrease of the quantity of landfilled waste – 194 million EUR</i></p>	<p><b>Results:</b> 129 contracts/ordinances for grant provision are in the process of implementation. 2 landfills for solid waste have been completed and another 19 are in the process of construction; their total capacity exceeds 16 million tons of waste.  <b>There are minimal positive effects</b> on public physical capital.</p>
	<p><i>Protection of biodiversity and habitats from the network Natura 2000 – 80 million EUR</i></p>	<p><b>There are no significant results:</b> the conducted policies comprise a mere 5% of total resources; the general economic policy is not focused on them; there are mostly good intentions.</p>

Similarly, the following table presents the results and main conclusions regarding the policies conducted within the framework of the CAP of the EU in the period 2007-2013. The main conclusion that can be drawn is that more than 78% of the resources for CAP are utilized by around 4% of the agricultural holdings. The resources are mainly allocated for the purposes of cultivation of intensive crops, which have no significant contribution to the generation of added value. An increase of total agricultural production (in value terms) is evidenced during the period 2007-2013. Inversely, the added value of agricultural production decreases during that period.

Impact of the Policies under CAP of EU for the Period 2007-2013 over Agriculture and the Development of Rural Areas

CAP	Policies and amount of co-financing by European funds	Level of impact over growth and economic development of the sector the rural areas
1 <sup>st</sup> pillar: Direct payments per unit area	Single Area Payment Scheme – 3 billion EUR	The subsidy is provided for the purposes of income support and is not tied to investments in agriculture or in the respective region. That is why <b>there is no way to measure the economic effect on growth and economic development.</b>
		There is <b>excessive concentration of payments on a small number of producers.</b>
		There is neither an upper limited, nor a scale for differentiation. <sup>108</sup> <b>There is no approved national system for modulation of the subsidy depending on the size of the arable land.</b>
		In practice, the subsidy stimulates production, characterized by smaller amount of capital per unit area. <b>This led to a transition from the production of traditional crops with high added value towards overly intensive crops.</b> <sup>109</sup>
		All of this impacts the labour factor in agriculture and in rural areas. <b>The number of agricultural holdings rapidly decreases, as does the number of people employed in agriculture.</b> Total agricultural production in value terms increases in 2007-2014. <b>Inversely, the added value of the production decreases in the same period.</b>
2 <sup>nd</sup> pillar: Development of rural areas	Increasing the competitiveness of agriculture and forestry – 963.9 million EUR	17 specific actions, aimed at <i>agricultural holdings, agriculture, the food processing industry, forestry and services</i> , were implemented. The effect is mainly among the larger holdings, which produce grain or other highly intensive crops. Almost all grain collection machines and energy-consuming heavy tractors have been replaced. New production capacities for processing of agricultural produce in the dairy and meat processing sectors have been constructed. However, the majority of the raw materials are imported, while many of them are substitutes of traditional raw materials.
	Protection and preservation of environment – 637.5 million EUR	No projects, leading to the processing of wood and other forms of utilization of the forests, are registered in the field of forestry. The main end product from this sector is unprocessed timber and firewood.
	Improving the quality of life in rural areas and diversification of agriculture – 702.1 million EUR	The implemented policies (13 in total) are aimed at <i>agricultural holdings, the forestry sector and Natura 2000</i> . The effects are partial and with local and regional scope, with no measurable impact at national level.
		A total of 8 policies are being implemented; they are aimed at <i>improving the quality of life and diversifying the agricultural sector</i> . There are <b>partial effects</b> on local economies and quality of life. As a whole, at national level, worsening of the quality of life in rural areas is evidenced alongside decreasing economic activity.

<sup>108</sup> This is a right of the national agricultural policy within the framework of CAP. Out of 28 member states of the EU, only 2 – Bulgaria and the Czech Republic – do not have modulation of the subsidies depending on the size of the agricultural holding.

<sup>109</sup> By 1990, the production structure of Bulgarian agriculture is dominated by fresh and processed fruits and vegetables, dairy and meat products; these products with high added value accounted for over 90% of agricultural exports. Now agriculture in the country is mainly focuses on the production of grain and other intensive industrial crops for export.

The assessments of the impact of the implemented policies over the factors of production need to take into consideration the specific internal and external conditions, in which economic development occurs:

- The period 2007-2013 is a time of severe international financial and economic crisis, which manifested in our country after 2008. The implemented policies, co-financed by the European funds, are used in a number of cases as anti-crisis policies, which decreases their effect on the restructuring and development of the factors of production.
- The internal political turbulence and social conflicts (mass protests) during that period define the exceptionally unfavourable environment from the standpoint of the development of successful economic policies.
- There are problems with the institutional capacity and preparedness for realization of the policies within the frameworks of the Operational Programmes. The preparation and initiation of the programmes is further impeded by various bureaucratic procedures. That is why the effects from their implementation begin to manifest after 2010.

#### *Achievements and Problems of the Policies Implemented within the Frameworks of the Operational Programmes*

##### Operational Programme “Human Resources Development”

###### *Positive results*

The goals are clearly defined and aim at the activation of the labour force, labour market inclusion and human capital development through education and training. Numerous programmes have been elaborated for activation of labour resources, inclusion in employment, training, education of both employed and unemployed people, development of human capital through participation in the educational system from an early age and lifelong learning. The policies have been partially successful: the early school dropout rate decreases, while the inclusion of children and youngsters in education improves.

###### *Problems*

The sustainability of employment is not high, which diminishes the effects from employment because of its temporary and short-term characteristics. In the areas with low labour demand, the programmes are used as the main tool for fostering social inclusion of marginalized groups and subsidized employment, which alters the basic characteristic of these programmes. Since some of the programmes are duplicated, it is difficult to assess their efficiency. A series of activities, aimed at improving the access to education, have produced short-term effects, which require further financing. Lagging behind has been registered with regard to the goals for increasing the quality and

practical applicability of education and for participation in lifelong learning, which is conditioned by the slow rate of development of the processes of introducing changes in learning programmes and grading mechanisms, increasing the qualification of educators, expanding the scope of practical training and professional orientation and improving adult literacy.

#### Operational Programme “Development of the Competitiveness of the Bulgarian Economy”

##### *Positive results*

The Operational Programme addresses the adequate policies, aimed at the enterprises, through the establishment of a favourable business environment and access to financial resources.

##### *Problems*

Low target value and even lower registered level of R&D intensity (the expenditures for R&D as % of GDP are 0.62 in 2012 and 0.65 according to forecast data for 2013, while the target value is 1.15% in 2013 and 1.2% in 2015). As a result, the value of the country’s innovation index worsens. This conditions the need for an abrupt change in the policy for encouraging R&D and innovations. It is necessary to revise the goals (formulate more stringent requirements), as well as to enhance the instruments and refine the mechanisms, used to achieve these goals. Turning science and innovations into a factor of growth is a process, which requires evolutionary build-up of good practices and sustainable systems. These two conditions currently predetermine the episodic and fragmentary effects of the implemented policies. The development of R&D and innovations requires sustainable policies and systems for stimulating an active attitude towards R&D and innovations amongst all economic agents.

#### Operational Programme “Transport”

##### *Positive results*

The formulated goals of the policies adequately focus on the development of the main types of transport infrastructure (railways, roads and in-land waterways) with the aim of improving their condition and their connection with European transport corridors. The fulfilment of these goals is a significant prerequisite for accelerated growth and economic development. Considerable activities have been conducted for the purposes of development of the road infrastructure and the intermodality of the transport connections.

##### *Problems*

The goals of the policies are focused on trans-European corridors (railway and road network), while financial support provision is not ensured for a series of other national

priority goals. The physical dismantling of a part of the constructed railway network with the aim of decreasing the expenditures for railway transport is a mistake of the policy and led to negative consequences, such as increase in environmental pollution as a result of the accelerated development of automobile transport, worsening of transport service provision to the population, stable and high number of fatalities in road traffic accidents and others.

#### Operational Programme “Environment”

##### *Positive results*

A targeted financing of policies for improvement and development of the basic infrastructure with the aim to *strengthen the competitiveness of the economy to achieve high and sustainable growth and to develop human capital to ensure higher employment, income and social integration*. The allocated resources contribute to the development of the public infrastructure as a factor of growth in the short and long term.

##### *Problems*

Low level of preparedness at the start of OPE 2007-2013; termination of the implementation of OPE by the EC as a result of inconsistencies in the conducted public tender procedures between Bulgaria and the EC, which caused a nearly year-long “vacuum” in the system; strenuous and time-consuming process of preparation of all the stages and components of investment projects (the preparation takes about 2 years); weaknesses in the preparation of the necessary documents (both application documents and documents for conducting public tenders) by the beneficiaries and lengthy evaluation procedures.

#### Common Agricultural Policy of the EU

##### *Positive results*

For less than 7 years CAP has allocated financial resources to the amount of 6 billion BGN. The average absorption level during the period 2007-2014 is around 80% (a level comparable to the EU average and the average for the new member states). There is a high level of consistency of the policies for development of rural areas during the two programming periods as follows: synchronization of the main strategic documents at European and national level; re-formulation of the priorities and goals in accordance with the changes in the environment, in which these policies are implemented.

##### *Problems*

*CAP is the framework, within which each EU member state positions its national policy in view of the potential for development of agriculture. The formulated national goal and the respective policy for achieving growth in this sector of the economy, as well as social development, apparently do not correspond with the traditions and potential of*

Bulgarian agriculture. *The problems are not as much linked to the mechanisms for absorption of the resources as they are to the formulation and positioning of the national priorities for development of the agricultural sector and the food processing industry. There is also a lack of a link between the Rural Development Programme and the establishment of a modern and traditional agricultural production in the country. The lack of capacity of the small and medium-sized agricultural holdings for implementation of the projects as a means to receive funding is not accounted for. The differentiation between large and small holdings further strengthens the bipolar model of agricultural structures. The lacking or insignificant financial support provision to small and medium-sized producers accelerates the on-going processes of decrease in the number of small holdings, regardless of their specialization in the production of traditional high-quality products and the employment they ensure. The cultivation of intensive crops is mainly stimulated. Most of these are grains, as opposed to foods with higher added value (fruits and vegetables for fresh consumption, vine, sheep and cattle, sheep's milk and products thereof, essential oil products). Hence, the resources are allocated to the excessively intensive production of grain and industrial crops, i.e. the inverse tendency of the production of goods with high added value*

More specific guidelines for development of the policies are formulated on the basis of the conducted analysis of the policies under Operational Programme and their impact over the factors of growth. They would help address the following question – how the government can more accurately manage the resources provided within the frameworks of the new Operational Programmes (2014-2020) so as to successfully change the quality of the factors of production and achieve higher economic growth, better competitiveness and a higher quality of life,

Guidelines for Policy Improvement

Factors of production	Policies
Labour	<p>The policies for activation of labour need to be closely linked to inclusion in employment. Participation in professional training needs to be accompanied by opportunities for employment in the respective specialty. An increase of the responsibility of the participants in professional training and qualification courses via vouchers and ensured employment is recommended.</p> <p>Training of the unemployed should only be for the purposes of attaining a professional qualification, as opposed to “basic skills”.</p> <p>Forecasting of the demands of the labour market and linking the trainings with the anticipated demand for labour.</p> <p>Coordinating the conducted training with labour market demand with a medium and long-term perspective.</p>
Human capital	<p>The improvement of the control over the quality of executed project activities and their results (product) is an important condition for improvement of the efficiency of the implemented schemes. Since it is difficult to assess to what extent the changes in the target indicators are the result of activities, conducted under the schemes of the programme, it is necessary to expand the activities relating to the assessment of the effects, including the improvement of the quality of human capital in the country as a factor of growth in a long term.</p> <p>Continued financing after the end of the programme. Many of the activities, aimed at improvement of the quality of education and training and the development of lifelong learning, whose implementation is characterized by lagging behind, are expected to have long-term effects and impact over the improvement of the quality of human capital and the</p>

	<p>professional realization of the participants. As a means to achieve sustainability of the effects, the financing of these policies needs to be continued during the next programming period (including in the new Operational Programme).</p> <p>The improvement of the access to education should be achieved in parallel with the increase of the quality of the education and not at the expense of quality.</p> <p>As a means to fulfil the goals and increase the strength of the impact of the policies on the improvement of the access to and quality of education, it is necessary to diversify the measures and expand the scope of the disadvantaged target groups.</p>
R&D and innovations	<p>A significant and abrupt change in the policy is needed: revision of the goals (formulation of more stringent requirements); enhancement of the used tools; refinement of the mechanisms for achievement of these goals.</p> <p>Restructuring R&amp;D activities conducted in the business sector via redistribution of the resources provided for R&amp;D towards centres with accumulated competences.</p> <p>Establishment of an effective mutually beneficial cooperation between the business and the R&amp;D conducted in the so-called public sector, particularly in BAS and SA.</p> <p>Linking of the policy for financing of R&amp;D activities in all economic sectors to the demand for R&amp;D products. The policies need to stimulate the demand for innovations and R&amp;D activities, conducted in the country.</p>
Public capital	<p>The length of the railway network needs to be increased for the following reasons: it is shorter in comparison to countries with comparable territories; the density of the network on the territory of the country is lower in comparison to some European countries with similar territories. This would allow for compensation of the continuous decrease (evidenced since 1990) of the length of the railway network in the country. During the period 2007-2013 the evidenced tendency in Bulgaria is towards continuous decrease of the length of the railway network – from 4318 km in 2002 to 4070 km in 2013.</p> <p>A new investment policy is needed as a means to ensure quick recovery of the dismantled station tracks and increasing the throughput of railway lines to the design parameters.</p> <p><i>Development of a new national management policy</i> that would involve municipal administrations in the development and maintenance of good operational conditions of the railway stations and stops, as well as all other infrastructural elements, associated with travel services (parking lots, platforms, waiting rooms), as a means to ensure higher quality of the railway transport services.</p>
Public physical capital – OPE	<p>It is very important to accelerate the process of approval of OPE 2014-2020 by the EC; subsequently compliance with all preliminary conditions, embedded in the Partnership Agreement, needs to be guaranteed.</p> <p>The WSSCs, which will act as beneficiaries during the next programming period, need to ensure the necessary resources for the purposes of co-financing of the practical realization of large-scale investment projects. Until now, significant resources have been invested in the training of experts in the municipalities (beneficiaries under OPE 2007-2013), while WSSCs lack such expertise. As a means to minimize the consequences from the change in beneficiaries, it is necessary to ensure the availability of mechanisms for co-financing of the projects and to commence training of WSSC employees in the management of projects in compliance with the requirements for the new programming period.</p>

### Common Agricultural Policy (CAP) of the EU

CAP	Production of foods with high added value, i.e. supply of expensive foods – this is the way for Bulgarian agriculture to become competitive.
	The structural policy in the agricultural sector needs to be supported by the prioritized establishment of a wide sector of vital family farms as the basis for sustainable production.
	There is a need to establish conditions, which foster higher levels of motivation, as well as coordination with the beneficiaries; the procedure for approval and financing of projects needs to be further enhanced.

The policies, conducted within the frameworks of the Operational Programmes and CAP, need to continue contributing to the improvement of the factors of growth. As a means to achieve these goals, the policies need to be enhanced and *adequately address* the labour segments, which are in greatest need of support for participation in labour activity and improvement of the productivity of labour; the various groups at risk, which need to participate in lifelong qualitative educational processes as a means to increase their employability; the companies and businesses, which seek innovations and scientific knowledge as a means to become more productive and competitive; the agricultural producers, willing to produce qualitative products for the internal and external market; the development of that infrastructure, which would ensure the provision of cheap and safe transport to the business and the population; the preservation of the environment and biodiversity as a means to ensure that people live in a clean and safe natural environment.

The better focusing of the policies requires *regular and integral mechanisms for control over the spent resources* and the achieved results, as well as clearly defined responsibilities of all participants in the processes and at all levels. Neglecting or blurring of responsibilities makes it impossible to achieve efficiency of the implemented policies.

Another guideline for improvement of the implemented policies is the *restructuring of the sources of funding*, elaboration and implementation of a policy for seeking local R&D and innovations, extending the responsibilities of beneficiaries with regard to the participation in state programmes and projects via financial engagements.

Some of the policies, implemented via the Operational Programmes, are *short-term* and require continued financing (for example, the policies for improvement of the access to education and decrease of the number of early school dropouts). The policies, which have long-term effects and impact over the improvement of the quality of human capital, the better professional realization and development of the participants (such as the ones aimed at the improvement of the quality of the educational services and training and the development of a system for lifelong learning) require constant development and enhancement. In that sense, *support provision to these policies by the Operational Programmes should be regarded as a part of a singular long-term national policy for development of human capital*.

*Some of the conducted policies have divergent impacts*. The optimization and restructuring of the network of educational institutions (with the aim of more rational allocation of the limited resources for education) could lead to a restriction in the access to education. In such situation, priority may be given to one policy over another, after evaluating the long-term goals for improvement of the quality of human capital.

## REFERENCES

- [1] Annual Report 2007-20013. (2014). <http://www.eufunds.bg/bg/page/987>
- [2] Annual Report for the Operational Programme "Environment 2007-2013". (2008, 2009, 2010, 2011 and 2012).
- [3] Annual Report on Implementation of the Operational Programme "Human Resources Development" 2007-2013. (2013, 2012, 2011, 2010, 2009, 2008, 2007).
- [4] Annual Report on the OPHRD Progress. (2008, 2009, 2010, 2011, 2012, 2013). <http://www.eufunds.bg>.
- [5] Annual Report on the Development of Agriculture (Agricultural Report) – 2007-2014.
- [6] BAS. (2011). Annual Report, [http://www.bas.bg/fce/001/0003/files/BAN\\_otchet\\_2011.pdf](http://www.bas.bg/fce/001/0003/files/BAN_otchet_2011.pdf).
- [7] Bulgarian Chamber of Commerce and Industry. (2013). Business and education survey. [http://www.bcci.bg/resources/files/Biznes\\_i\\_obrazovanie\\_FEBRUARY\\_2013\\_publ.pdf](http://www.bcci.bg/resources/files/Biznes_i_obrazovanie_FEBRUARY_2013_publ.pdf).
- [8] Bulgarian Industrial Association. (2011). Survey of the motivation and attitudes related to professional qualification, educational level and career prospect of the labour force at company, regional and sectoral levels – 2011. <http://www.competencemap.bg/url:1kwced>.
- [9] Bulgarian National Bank Act.
- [10] Bulgarian National Bank. <http://www.bnb.bg/>.
- [11] Bulgarian Patent Office. <http://www.bpo.bg>.
- [12] Chobanova, R. (2012). Innovativeness of the national economy. Sofia: Academic publishing house Prof. "M. Drinov".
- [13] Chobanova, R. (2014). Demand and supply of R&D in the Bulgarian business and governmental sector. – Economic studies, N 3.
- [14] Chobanova, R. (2014). ERAWATCH Country Reports 2013: Bulgaria. Publications Office of the European Union.
- [15] Concept of the Operational Programme "Science and Education for Smart Growth" 2014-2020.
- [16] Draft of the Operational Programme "Environment 2014-2020" and accompanying documents sent to the EC on 28 November 2014.
- [17] EC. (2013). European Research Area Progress Report 2013. Final Report From The Commission To The Council And The European Parliament.
- [18] EC. (2013). Research and Innovation Performance in EU States and Associated Countries. Innovation union progress at country level, Brussels, DG R&I, p. 5.
- [19] Employment Agency. (2008, 2009, 2010, 2011, 2012, 2013). Annual Report. <http://www.az.government.bg/>.
- [20] Eurostat. <http://epp.eurostat.ec.europa.eu/portal/page/portal/Eurostat/home/>.
- [21] Final Report on achievement of strategic and specific targets of OPHRD for the period 2007-2010, Summary. <http://www.eufunds.bg/bg/>.
- [22] Final report on the achievements of six schemes of OPHRD, Summary. <http://www.eufunds.bg/bg/>.
- [23] Final Report on the increasing flexibility and efficiency of the labour market through increasing activity of the social partners on Priority axes 2 of the OPHRD for the period 2009-2012. <http://www.eufunds.bg>.
- [24] Grozdanovza, S., Todorov, P., Ruscheva, D. (2008). National food security of accession of Bulgaria to EU. Sofia: Roll Company, p. 163.
- [25] <http://www.imf.org/external/np/ms/2015/031315.htm>.
- [26] [http://www.opcompetitiveness.bg/module0.php?menu\\_id=110](http://www.opcompetitiveness.bg/module0.php?menu_id=110).
- [27] Innovation Union Competitiveness Report. Innovation Union Information and Intelligence System. <http://i3s.ec.europa.eu/>.
- [28] Innovation Union Scoreboard. <http://ec.europa.eu/enterprise/policies/innovation/facts-figures-analysis/innovation-scoreboard/>.
- [29] International New York Times. July 8, 2014.
- [30] Inzelt, A., Hilton, J. (1998). Technology Transfer: from Invention to Innovation. Kluwer Academic Publishers.
- [31] Key IU related documents. [http://ec.europa.eu/research/innovation-union/index\\_en.cfm?pg=keydocs](http://ec.europa.eu/research/innovation-union/index_en.cfm?pg=keydocs).
- [32] Ministry of Economy. Communicational plan of the Operational Programme "Development of the Competitiveness of the Bulgarian Economy".
- [33] Ministry of Finances. <http://www.minfin.bg/>.
- [34] Ministry of Labour and Social Policy. (2008, 2009, 2010, 2011, 2012, 2013). National Action Plan on Employment. <http://www.mlsp.government.bg/bg/docs/indexothers.htm>.
- [35] Ministry of Labour and Social Policy. (2014). Evaluation Report on ALMP, Final report. <http://www.mlsp.government.bg/bg/docs/indexothers.htm>.

- [36] National Development Programme: Bulgaria 2020.
- [37] National Reform Programmes.
- [38] National Statistical Institute. <http://www.nsi.bg/>.
- [39] National Strategic Plan for Agricultural and Rural Development 2007-2013.
- [40] National Strategy for Development of the Pedagogical Staff (2014-2020).
- [41] National Strategy for Literacy Promotion and Increase (2014-2020).
- [42] Nationhood, Development, Justice. Economic and social priorities of the Government.
- [43] NSI. Population census in the Republic of Bulgaria 2011.
- [44] OECD. (2010). The Innovation Policy Mix. OECD Science, Technology and Industry Outlook 2010. OECD Publishing. [http://dx.doi.org/10.1787/sti\\_outlook-2010-48-en](http://dx.doi.org/10.1787/sti_outlook-2010-48-en).
- [45] Ongoing assessment of Operational Programme "Environment 2007-2013" for 2011, 2012 and 2013.
- [46] Operational programme "Development of the Competitiveness of the Bulgarian Economy" 2007-2013. <http://www.eufunds.bg/bg/page/14>.
- [47] Operational Programme "Environment 2007-2013".
- [48] Operational Programme "Human Resources Development" 2007-2013, <http://www.eufunds.bg/bg/>.
- [49] Operational Programme "Human Resources Development" 2014-2020, <http://www.eufunds.bg/bg/>.
- [50] PISA – OECD Programme for international student assessment of the performance of 15-year-old students in reading, mathematics and science, 2006, 2009, 2012.
- [51] Programme for priorities in the development of Bulgarian agriculture in the period 2009-2013. A team leader by Prof. D.Sc.(Econ.) Plamen Mishev, Scientific Advisory Board on Agriculture.
- [52] Programme of the Government for sustainable development of the Republic of Bulgaria in 2014-2018.
- [53] Representative survey to establish the level of interest of current and future beneficiaries of specific measures of the RDP for the 2009-2010 campaign.
- [54] Rural Development Programme (2007-2013).
- [55] S & P: Bulgaria Ratings Lowered To 'BB+/B' On Fiscal Risks from State Support of Banks. Dec. 12, 2014.
- [56] Slavova, Z. (2011). Evaluation of the Effects of the Active Labour Market Policies. IME. <http://www.ngobg.info/bg>.
- [57] Strategy for preventing and reducing the share of dropouts and early school leavers (2013-2020).
- [58] Study on the progress of project BG051PO001-2.1.11 "I can", Summary. <http://www.eufunds.bg/bg/>.
- [59] Summary of final report of the assessment of the achievement of the strategic and specific objectives of the Operational Programme "Human Resources Development" for the period 2007-2010.
- [60] Survey among beneficiaries of the Operational Programme "Environment 2007-2013", conducted in the period December 2012 – March 2013.
- [61] Swann, G., Peter, M. (2015). How We Create the Wealth of Nations. University of Nottingham, UK.
- [62] The Global Competitiveness Report of the World Economic Forum. <http://www.weforum.org/issues/global-competitiveness>.
- [63] Universitas 21 Ranking – Ranking of the global network of universities Universitas 21 and the University of Melbourne. <http://www.universitas21.com>.
- [64] Unpublished version of the Operational Programme after the changes according to the Decision of the Commission of .08.2012. <http://www.eufunds.bg/bg/page/14>.
- [65] World Bank. (June 2010). A review of the Bulgaria school autonomy reforms (Report № 54890-BG).
- [66] Zareva, I., Matev, M., Kirova, A. (2014). Higher Education and Science in Bulgaria: Economic, Social and Gender Dimensions. Sofia: Academic publishing house "Prof. Marin Drinov".