



REPUBLIC OF BULGARIA

**CONVERGENCE PROGRAM  
(2009–2012)**

JANUARY 2010



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## LIST OF ABBREVIATIONS

BGN – Bulgarian lev

EC – European Commission

EDP – Excessive Deficit Procedure

ESA – European System of Accounts

EU – European Union

EUR - euro

EURIBOR – Euro Interbank Offered Rate

FDI – Foreign Direct Investment

FISIM – Financial Intermediaries' Services Indirectly Measured

GDP – Gross Domestic Product

LIBOR – London Interbank Offered Rate

NSSI – National Social Security Institute

PSS – Public Social Security

USD – United States Dollar

VAT – Value Added Tax

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## 1. OVERALL POLICY FRAMEWORK

The main medium term objective of Bulgaria is euro area membership, which will provide enhanced macroeconomic stability, smooth transition from the currency board to the euro, and higher investor confidence in the Bulgarian economy.

To achieve this goal, the Bulgarian government strives for successful joining the Exchange Rate Mechanism II (ERM II) by implementing consistent policies to further increase the resilience and flexibility of the economy, and to ensure sustainable convergence within the European Union.

The updated Convergence Program for the period 2009 – 2012 outlines the key policies of the government to achieve the objective of euro area membership.<sup>1</sup> The Program describes the main macroeconomic policy parameters as well as the reforms the government commits to implement within the programming period.

To guarantee macroeconomic stability, Bulgaria will maintain its currency board arrangement, preserving the current level of the exchange rate (BGN 1.95583/EUR 1), until the country becomes a member of the euro area.

Consistent with the Medium-term Fiscal Framework for the period 2010–2013, approved by the Bulgarian government in August 2009, the main goal of the fiscal policy is to maintain a balanced budget, by means of structural reforms and increased efficiency of the state.

The long-term sustainability of public finances is the second important priority of the government, which sets a fiscal objective of a surplus of 0.5% of GDP. Thus defined, it meets the three objectives set in the Stability and Growth Pact. In particular, it ensures a reduction in the government debt-to-GDP ratio in the long run and entirely pre-finances the future ageing expenditure. This objective is more ambitious and pre-finances a larger portion of the implicit liabilities compared to a situation in which it is defined at the minimum benchmark (-1.75% of GDP) or the minimum required level of -1% of GDP for members of the euro area or the Exchange Rate Mechanism II.

Another objective of Bulgaria's income policy is to keep wage growth in line with labour productivity. For the purpose of achieving a balanced growth and sustainable convergence, the government is implementing policies to boost productivity and restructure the economy, aimed at increasing the share of the sectors with higher value added.

In the first six months of its mandate the new government<sup>2</sup> has already implemented a number of measures to increase the resilience and flexibility of the economy, namely:

- Significantly reducing (from EUR 2,500 to EUR 1) the minimum capital required for the establishment of new businesses;
- Decreasing the rate of social security contribution by 2 p.p. as of January 2010; a further decrease by 3 p.p. is planned for the next two years;
- Completing the large scale reform in the revenue administrations (tax and customs). The integrated information system, connecting the tax offices with customs and the authorities responsible for collecting public claims, is operational as of November 2009;

1. It is developed and presented as part of the process of multilateral fiscal surveillance, pursuant to the provisions of Articles 120 and 121 of the Treaty of Lisbon and the Stability and Growth Pact. Its preparation is closely related to the procedure for adoption of the national budget and the Medium-term Fiscal Framework (2010 - 2013). It also takes into account the Integrated Guidelines for Growth and Jobs (2008 – 2010) and the latest recommendations of the Council (COUNCIL OPINION of 10 March 2009 on the updated convergence program of Bulgaria, 2008-2011 (2009/C 62/01) in connection with the assessment of the Convergence Program of Bulgaria (2008 – 2011).

2. In office since July 27, 2009.



- Streamlining the procedure for VAT refunding, whereby the timelines for refunds have been cut in half;
- A new integrated approach to EU funds management has been put in practice with the establishment of a new administrative structure within the Council of Ministers, which provides for a better coordination in the process of implementation of Operational Programs. The spending control has been further enhanced.
- Introducing electronic-only submission of annual reports for all businesses, as of January 2010. Previously, companies had to submit a hardcopy of their tax reports to the tax authority, as well as an electronic version (using a different format) to the National Statistical Office. These two requirements have been merged into a single electronic requirement.
- Eliminating the need for licensing crafts and artisans. Previously, the Chamber of Crafts was responsible for issuing licenses, in addition to the generic business licenses issued under the Company Law.
- Creating mobile groups consisting of staff from Customs, the Tax Office and the Interior or Agriculture ministries, to jointly fight the contraband of goods, as of October 2009. This has been done following the recommendation by Crown Agents, a British consulting company. As a result of this measure, in the period October-December 2009 the seizure of illegal goods increased fourfold (in terms of value) relative to the same period in 2008.
- Reducing administrative staff by 11.3% in all ministries by January 2010. This was done following an executive order by the Minister of Finance, dated October 2, 2009. This is part of a broader reform on cutting administrative costs. The number of the staff dealing with EU funds management has been preserved.
- Reducing government expenditures by 15%, set in Council of Ministers decree 196 from August 11, 2009. This has allowed Bulgaria to end fiscal year 2009 with a deficit of 0.7% of GDP on a cash basis or 1.9% following ESA 95, one of the lowest deficits in the European Union.
- Optimizing the delivery of public services by closing down two ministries (the Ministry for State Administration and the Ministry for Emergencies and Natural Disasters) and three state agencies (for forestry, communications, and tourism), by November 2009. Their functions are now performed by other line ministries.
- Introducing economic analysis into the costing of health services. Under a new law on the functioning of the National Healthcare Insurance Fund, the pricing policy is now proposed by the Agency for Economic Analysis and Forecasting. The benchmark cost model will be ready at the end of February 2010, and will serve as a basis for future cost modelling.
- Optimizing the number of hospitals. Under a new agreement between the National Healthcare Insurance Fund and the medical associations, new quality standards are set for hospital units to receive funding from the National Healthcare Insurance Fund. In order to qualify for funding, hospitals and hospital wards need to certify a given number of specialists, medical equipment, and the ability to perform certain procedures. This reform streamlines healthcare into the larger, better-equipped hospitals, with increases in both the quality of healthcare provided and the efficiency of healthcare expenditure.
- Restructuring the national railroads, by optimizing staff and attracting a strategic partner. The restructuring program started in November 2009.

- Removing government guarantees in the funding of the second nuclear power station Belene. If there is sufficient investor interest, the project can continue as a private investment project.

Recognizing the importance of these reforms to the stability of fiscal balances, on December 1, 2009 Standard&Poors upgraded the outlook of Bulgarian sovereign debt from negative to stable. Moody's improved the outlook on the Bulgarian government's Baa3 ratings to positive from stable on January 21, 2010. The improved ratings on Bulgaria come as a recognition of the government's record of prudent fiscal policy and low gross debt; solid growth prospects over the medium term; and the strong political commitment to implement the necessary reforms.

In 2010-2012, the government will implement structural reforms aimed at higher flexibility of markets; additionally improve the business environment and the competitiveness of the economy; and enhance<sup>3</sup> the efficiency of institutions and public expenditure. In particular:

- A pension reform strategy was adopted on January 25, 2010. It involves two options: raising the mandatory retirement age for men and women to 65 years (currently 63 for men and 60 for women), following a schedule whereby every year four months are added to the required minimum, starting in 2012; or increasing the mandatory number of work years to 40 from 37 for men, and to 37 from 34 for women. Also, a number of early retirement exceptions will be phased out. Disability pensions will also be reformed, so as to incorporate better incentives for caretakers.
- A review of administrative capacity and public administration pay will be finalized in February 2010. On the basis of this analysis, further reforms in the public administration will take place.
- Reform in the management of state assets, including state-owned enterprises, land and buildings, concessions. The proposed reform involves the creation of a single agency responsible for the management of state assets. Currently each ministry is responsible for a number of state companies in its line of responsibility. This diffuses management responsibility and creates non-transparent structures.
- Bringing science, higher education, and business closer together, through reform in the Bulgarian Academy of Science and the legislation on tertiary education, research and development. This is aligned with the priorities outlined in the Lisbon Strategy.

In order to ensure medium-term fiscal consolidation and reduce the burden of the ageing population on the public finances, the government plans to cut down expenditure through streamlining public sectors (including the administration) and increasing the performance and quality of the public services provided by the state, both at the national and municipal levels. <sup>τ</sup>

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3. The actions the government plans to implement in the medium term in the policy areas listed above are described in the updated National Reform Program of Bulgaria from 2009; the link with this document is made through including in the Convergence Program of part "2.5. Effect of the Structural Reforms" and "3.6. Budgetary Aspects of the Main Structural Reforms".

## 2. ECONOMIC OUTLOOK

This Convergence Program is based on a 2009–2012 macroeconomic framework elaborated under the assumptions of the European Commission, the International Monetary Fund, and the Agency for Economic Analysis and Forecasting, relevant as of December 2009.<sup>4</sup> The forecast values of the indicators used in the Convergence Program are based on the medium-term macroeconomic model and other auxiliary models of the Agency for Economic Analysis and Forecasting as well as on estimates of the Ministry of Finance, the National Social Security Institute and the National Health Insurance Fund (table 1).

**Table 1: Assumptions on Main Economic Indicators**

	2009	2010	2011	2012
Exchange rate USD/EUR	1.40	1.45	1.45	1.45
GDP (in real terms, percentage change) – World Economy	-1.2	3.1	3.5	4.0
GDP (in real terms, percentage change) – EU27	-4.1	0.7	1.6	2.0
Oil price (USD/barrel)	62.1	67.5	77	84
Six-month LIBOR on USD-denominated deposits	1.0	1.7	2.5	3.0
Three-month LIBOR on EUR-denominated deposits	1.2	2.0	2.8	3.5
Commodity prices <sup>5</sup> (2005=100)	147.4	134.1	137.0	134.5
Food	135.0	138.3	135.8	134.4
Beverages	151.7	173.5	170.3	177.5
Agricultural raw materials	94.5	112.2	113.3	111.7
Metals	119.5	140.7	143.0	138.1

Note: Assumptions are based on statistical information published as of 17 December 2009.

Source: European Commission, International Monetary Fund, Agency for Economic Analysis and Forecasting.

### 2.1. Economic Prospects

#### 2.1.1. Economic Growth

During the first nine months of 2008 the net export contribution to GDP improved mostly because of the gradual slowdown of imports' growth. Thus, GDP growth accelerated to reach 7.0% in volume in the period January–September. In the fourth quarter, however, the global economic crisis started affecting the country and the GDP growth slowed down to 3.5%. The main underlying factors behind these developments were the decline in the export of goods and services and the slowing down of private consumption. Overall, GDP increased by 6% in 2008.

The negative trend became more pronounced in 2009 when, for the first nine months, GDP marked a decrease of 4.7% as a result of the weak domestic demand. The external sector had a positive contribution to economic growth due to more considerable decline in import (23%) compared to export volumes (12.8%).

Investment grew by more than 20% over 2004-2008 and at the end of 2008 reached a share of 33.4% of GDP. However, limited financial resources and the uncertain global economic

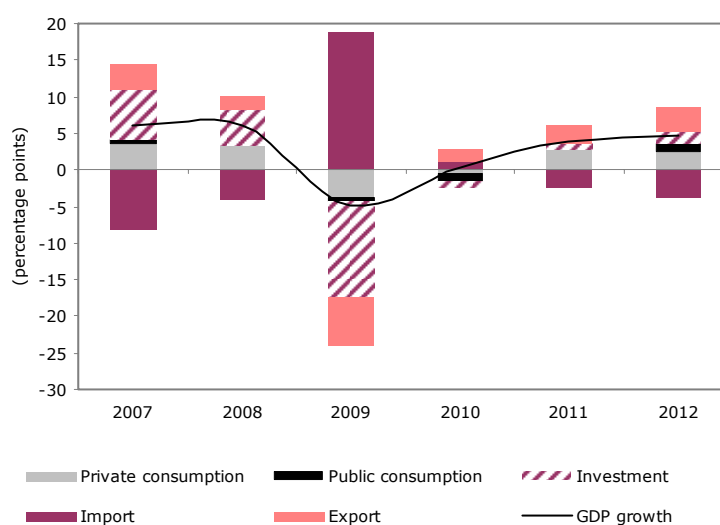
4. Due to the difference in time of elaboration of the Convergence program and the 2010 Government budget of the Republic of Bulgaria, the baseline scenario in the current document is not the one used for the 2010 Budget procedure. Instead, the 2010 Budget scenario is presented in the Convergence program as a pessimistic alternative to the updated baseline.

5. In USD.

environment in the first nine months of 2009 led to a real decline in investment of some 33.1%. Growth in private consumption slowed down to 1.5% during the fourth quarter of 2008 and became negative during the first nine months of 2009 (Figure 1).

In 2008 the agriculture sector recovered from the bad harvest in 2007, registering the highest real growth rate (24.6%) among all sectors. Industry was most adversely affected by the global economic crisis, and in the third quarter of 2008 the economic decline had already started. Services had the main contribution to the increase in 2008 GDP. The sector achieved a real growth of 7% during the first nine months of 2008, but in the last quarter the growth rate decelerated to 3.8%. During the period January–September 2009 industry and agriculture declined by 8.3% and 1.4% respectively, while the services continued to grow, but also registered a real decline of 5.1% in the last quarter of 2009.

**Fig. 1: Demand-side contributors to economic growth**



Source: Agency for Economic Analysis and Forecasting, National Statistical Institute.

### 2.1.2. Cyclical Position<sup>6</sup>

The calculated GDP potential growth for 2008 is 5.4%. Growth was high due mainly to the expansion of capital stock resulting from the high investment activity. The physical capital is the factor with the greatest contribution to this growth (3.1 percentage points), followed by total factor productivity (1.2 percentage points) and labour (1.1 percentage points).<sup>7</sup>

In 2009 the potential economic growth slowed down to an estimated 3.4%, reflecting the effects of the crisis on the Bulgarian economy (table 2). The main factors behind this are the expectations for investment decline leading to a slowdown in the capital stock growth rate. With regard to the production function factors, the highest contribution to the potential growth came from capital (1.6 percentage points), followed by total factor productivity (1.1 percentage points) and potential employment (0.8 percentage points). In 2010, 2011 and 2012 potential growth is expected to reach 3.1%, 2.9% and 3.0%, respectively.

6. The calculations use the commonly accepted production function methodology. Because of uncertainties arising from smoothing data on working age population, the text of the Program refers to the results from applying the method without smoothing these statistical series. This leads to lower values of the output gap, respectively to higher values of potential growth.

7. When the contribution of labour to potential growth is calculated, the contribution of the so called potential employment is considered, which corresponds to the full employment concept (labour force less natural unemployment). Hence, the contribution of labour is positive, although the actual employment forecasted for 2009 is lower than the value achieved during the preceding year.

In line with these economic developments in 2009, the output gap is estimated at -2.7%. In 2010 the output gap is projected to further expand to -5.3%. In 2011 and 2012 as a result of the growing demand the output gap will narrow to -4.5% and -2.8%, respectively.

**Table 2: Potential growth, the output gap and contribution to potential growth (percentage points)**

Year	Potential growth, %	Output gap, %	Contribution to potential growth, p.p.		
			Labour	Capital	TFP
2008	5.4	5.8	1.15	3.11	1.15
2009	3.4	-2.7	0.79	1.59	1.06
2010	3.1	-5.3	0.76	1.27	1.06
2011	2.9	-4.5	0.55	1.21	1.14
2012	3.0	-2.8	0.44	1.29	1.25

Source: Agency for Economic Analysis and Forecasting.

## 2.2. Medium-term Scenario

In 2009 the Bulgarian economy shrank by 4.9% (estimate). On the demand side, the main effect came from the fall in investment. In 2009 the investment share dropped to 26.7% of GDP, as compared to 39.4% of GDP in 2008. In 2010, the share of investment is forecast to stabilise at its 2009 levels. On the upside, the worsened fiscal situation in some neighbouring economies is drawing increased investors' interest to Bulgaria – the only country in the region that has seen an upgrade in its credit ratings.

The decelerating wage growth, as well as the rising unemployment, will have a negative impact on household income. The latter, along with constrained loans to households, will result in falling private consumption. Household consumption is expected to drop by 5.5% in 2009. Government consumption also contributed to the shrinking overall consumption. The actions undertaken for curbing government expenditure as a response to the economic crisis resulted in a fall in government consumption by 4.1% in real terms. Hence, overall consumption shrank by 5.2% in real terms in 2009 (estimate).

The import of goods and services decreased by 22.8% in real terms in 2009. The deterioration of the economies of the main trading partners had a negative impact on Bulgarian export, as a result of which it is expected to shrink by 10.8% in real terms. In effect, the contribution of the net export to GDP improved from -2.3 percentage points in 2008 to 12.4 percentage points in 2009.

In 2010, a recovery of the Bulgarian economy is expected to start in the second quarter, with real GDP growth rate accelerating to 0.3% on an annual basis. Increasing unemployment and tight loans will cause consumption and investment to fall by respectively 0.7 and 3.2 in real terms. Positive export developments at the end of 2009 will continue leading to positive real exports growth of 3.3% in 2010. Limited domestic demand implies a 1.9% decline in imports. Economic recovery will continue in the following years with expected GDP growth in 2011 and 2012 of 3.80% and 4.8%, respectively.

## 2.3. Sectoral Balances

### 2.3.1. Labour Market - Employment and Unemployment

The stable economic growth and investment activity in 2008 resulted in employment growth, accompanied by lower unemployment and increased participation rate. The average number of persons employed in the economy increased by 3.3% compared to 2007.<sup>8</sup> The services sector<sup>9</sup> as well as construction was the main contributor to employment growth in 2008. The annual employment growth in industry slowed down; related mainly to the lower labour demand in some constrained sub-sectors of the processing industry during the second half of the year. The level of unemployment followed a downward trend during the whole 2008 and reached 5% in the fourth quarter.<sup>10</sup> The average annual number of unemployed amounted to 199.7 thousand, or 5.6% of the labour force. The participation rate<sup>11</sup> increased by 1.2 percentage points and reached an average value of 53.8% in 2008.

At the beginning of 2009 the labour dynamics changed. The number of people employed started decreasing as a result of the reduced economic activity of enterprises, while unemployment started gradually increasing. The level of registered unemployment in the country reached 9.1% in December, which is an annual growth of 2.9 percentage points. The average number of employed registered an annual decline of -0.3% in the first quarter, which further accelerated to -1.8% in the second and -3.7% in the third quarter i.e. an average of 78.5 thousand were out of employment in the first nine months of 2009. The negative employment dynamics is primarily due to the decreasing number of employed in industry.<sup>12</sup> The services sector also contributed negatively to the overall employment dynamics, although to a smaller extent compared to the industrial one, and the aggregate number of employed started shrinking in the second and more clearly in the third quarter of 2009.

The decrease in employment during the first nine months of the year was accompanied by a decline in economic activity. The participation rate reached 53.3%, and remained lower by 0.6 percentage points on an annual basis. Since the beginning of the year the number of the discouraged persons grew and in the first nine months of the year it increased by 14.8%, or 22.4 thousand people.

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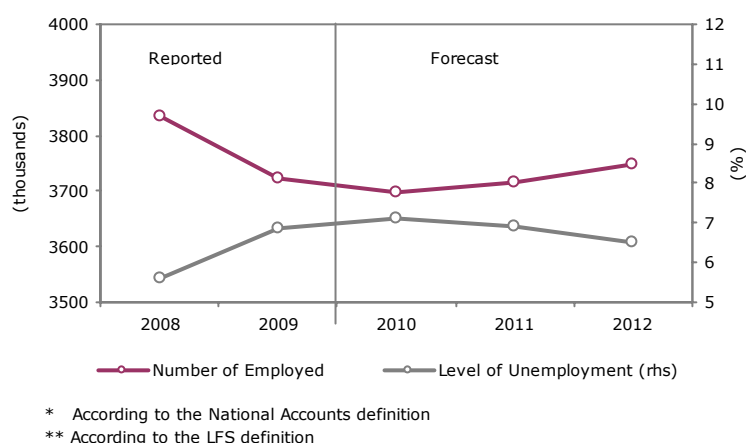
8. National Accounts data.

9. Such as trade, real estate transactions, rental activity and business services, hotels and restaurants, financial intermediation.

10. According to the Labour Force Survey (LFS) data.

<sup>11</sup> Of the age group of 15 and over.

12. Mainly in the processing industry, but since the second quarter a decrease in employment at an accelerating pace was also registered in construction.

**Fig. 2: Number of employed and level of unemployment**

Source: Agency for Economic Analysis and Forecasting, National Statistical Institute.

The decline in external demand and investment in 2009 and 2010 affects negatively the labour market (Fig. 2). Total employment decreased by 3% in 2009 and is expected to decrease by 0.7% in 2010. Because of the delayed reaction of employers to the decrease in economic activity, in 2009 labour productivity registers a decrease on an annual basis. With lower expected GDP decline, and continuing decrease in employment in 2010, labour productivity is expected to increase.

The level of unemployment will increase to 6.8% in 2009 and 7.1% in 2010 (Fig. 2).<sup>13</sup> During the period 2011–2012 the expected investment growth and the aspiration to eliminate the deterioration in labour productivity during the previous two years will allow for acceleration in labour productivity growth. The expected economic growth during the period 2011–2012 will be accompanied by a growth in employment. The worsened fiscal situation in most other economies in the region, and hence the likely increases in tax rates needed so that these countries can cover their looming deficits, provides an opportunity for Bulgaria to attract further investor interest.

### 2.3.2. Incomes and Labour Productivity

In 2008 wages continued along the growth trend observed in the preceding several years. The average wage growth in the private sector amounted to 20.6% on a nominal basis and 7.3% in real terms, and in the public sector – to 25.1% and 11.3%, respectively.

Since mid-2008 a gradual slowdown in the wage growth started in some economic sectors; the export-oriented industries were affected most strongly as a result of the lower demand in foreign markets. The trend in income dynamics, observed during the second half of last year, continued in the first months of 2009. In the first half of 2009 the annual nominal wage growth was 15.8%. In real terms the average wage increased by 10.2% annually.<sup>14</sup>

In 2008 the real labour productivity growth in the Bulgarian economy continued its upward trend, increasing by 2.7%.<sup>15</sup> During this period income growth outstripped the growth in

13. The forecasts are based on data from the LFS.

14. The most significant slowdown of the income growth was observed in the mining (2.8%) and processing (10.6%) industry. As far as the activities in the services sector are concerned, a limited growth in this indicator (16.3%) was also observed, but it was not that tangible, bearing in mind that this sector felt the negative impact of the external environment later. In this sense it can be assumed that the services sector will need a certain period of time for adapting the costs and will react to the changed economic environment with a delay.

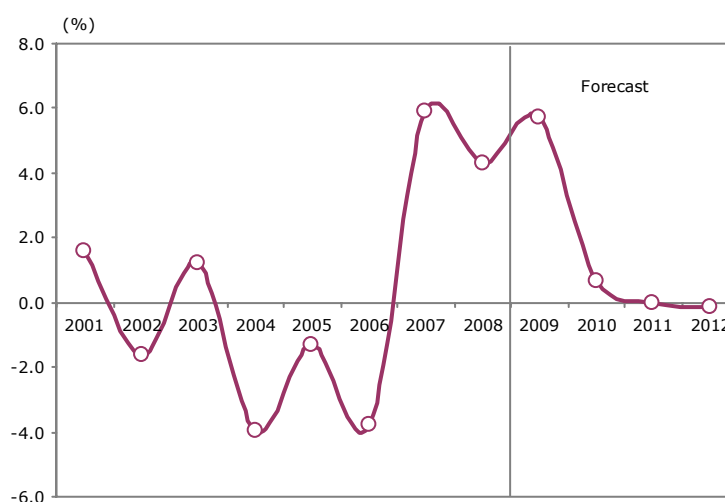
15. Labour productivity is calculated as a ratio between GDP based on constant prices and the number of individuals employed according to the System of National Accounts.

labour productivity; however, the net impact on unit labour costs<sup>16</sup> was positive as its growth rate slowed down from 5.9% in 2007 to 4.3% in 2008.

During the first half of 2009 labour productivity registered an annual real decline of 1.2%. This development was strongly influenced by the delayed layoffs by employers, as a result of which labour productivity in the Bulgarian economy decreased by 2.5% in real terms.<sup>17</sup> While the growth of labour incomes was again faster than that in labour productivity, its slowdown had a favourable impact on the real unit labour costs. The latter remained positive, but decelerated to 3.8% compared to 4.4% in the corresponding period of 2008 (Fig. 3).<sup>18</sup>

In view of the lower labour demand expectations and increasing unemployment in 2010, income growth is projected to slow down. After 2010 the income growth will start accelerating in line with the favourable economic environment, without putting pressure on competitiveness as the lower income growth will have a favourable impact on the dynamics of the unit labour costs during the period. Public sector wage growth will follow the private sector wage dynamics, taking into account the fiscal stance in the budget.

**Fig. 3: Real unit labour cost, annual growth rates**



Source: Agency for Economic Analysis and Forecasting, National Statistical Institute.

### 2.3.3. Inflation

The 2008 annual average Harmonized Index of Consumer Prices inflation was 12%. In the first half of the year, a high annual inflation was registered (14.7% for June), determined to a great extent by the international prices of foods and crude oil. The labour market shortages also put pressure on the prices in the country via the increased unit labour costs and the increased domestic demand. In the second half of the year, as a result of the global financial and economic crisis, international prices started falling, which affected the domestic ones as well. The good agricultural harvest had also a positive impact on the food prices dynamics. As a result, annual inflation reached 7.2% at the end of the year.

16. The unit labour cost in real terms is calculated as a ratio between the compensation of employees per employee and the GDP per one person employed, based on current prices.

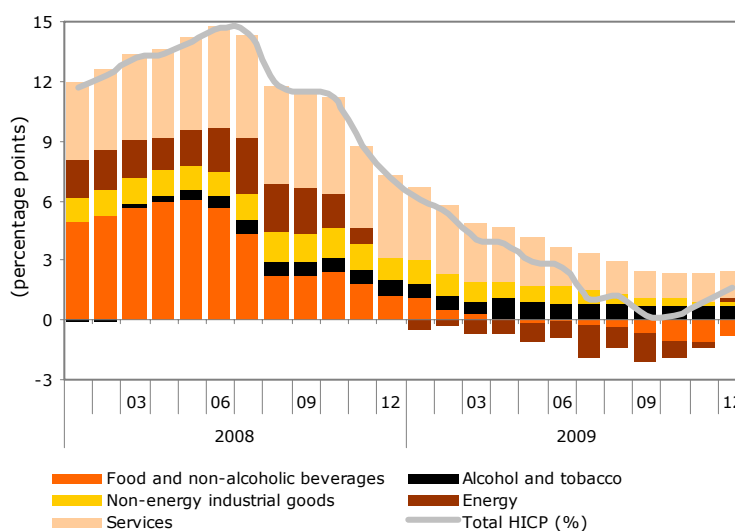
17. During the second quarter of 2009 the value of the indicator was -0.1% - similar to the previous year levels – due to the accelerated decrease in employment in the conditions of a lower real decrease in value added.

18. The growth in the indicator was influenced primarily by the non-tradable sector and construction, while the tradable sector (the processing industry) registered a decrease and thus showed that the enterprises in the processing industry have managed to adapt their labour costs in line with the decreased economic activity in order to maintain their cost-related competitiveness.



The clear disinflation trend since the middle of 2008 continued in 2009 and the Harmonized Index of Consumer Prices dropped to 0.2% in September. Afterwards, due to some base effects and the increasing international oil prices, consumer prices rose to 1.6% at the end of 2009. The annual average inflation rate for 2009 is 2.5%. The industrial producer prices on the domestic market reached -5.3% in November.

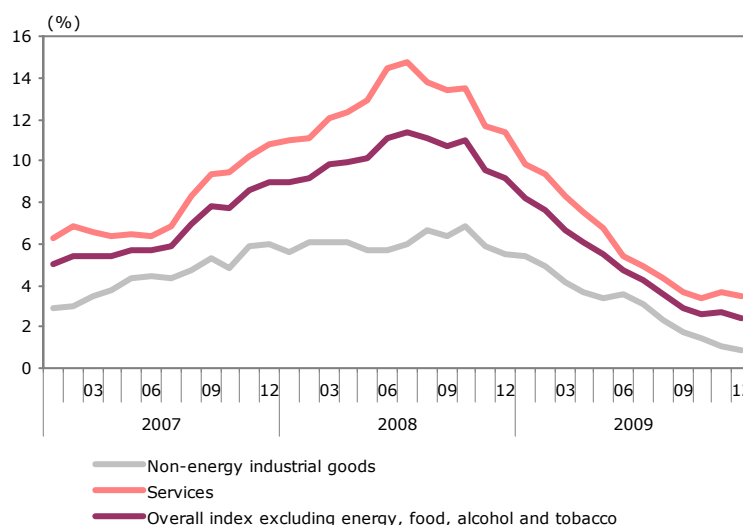
**Fig. 4: Annual inflation rate (%) and contribution by main components of Harmonized Index of Consumer Prices (percentage points)**



Source: Agency for Economic Analysis and Forecasting, National Statistical Institute.

Since the beginning of 2009 inflation was determined to a large extent by the decrease in international food and energy prices (Fig. 4). The base effect of the accelerated growth in consumer prices in 2008 also contributed to this. Since the middle of 2008 domestic prices of food have followed a downward trend, which was maintained in 2009 as well. By the end of 2009 they had the largest negative contribution to overall inflation. The energy prices were the second most significant component contributing to inflation decrease throughout the year. In December, however, they registered a positive growth of 1.8% compared to December 2008, affected by the increase in oil prices, which started in mid-2009.

The increase in excise duties on tobacco products lead to an accumulated 24% increase in their prices as of December. As a result the alcohol and tobacco products had a significant contribution of 0.7 percentage points to overall inflation (Fig. 4).

**Fig. 5: Harmonized index of consumer prices (annual change, %)**

Source: Agency for Economic Analysis and Forecasting, National Statistical Institute.

The core inflation rate<sup>19</sup> also decelerated (Fig. 5), but compared to the other components of the Harmonized Index of Consumer Prices remained at a relatively high level (2.4%). The prices of services, remaining to a large extent affected by the still increasing labour costs, had the greatest contribution to this trend.<sup>20</sup>

The influence of regulated prices<sup>21</sup> on the annual inflation was 0.3 percentage points in December. The slowdown in these prices resulted mainly from the decrease in the prices of electricity and heating, as well as from the base effect of their accelerated growth during the previous year.

In 2010 the economic recovery of major European economies is expected to begin. The international commodity prices might increase faster due to the stronger-than-projected world economic recovery. The internal factors in 2010 will restrict the overall price increase since the unit labour costs will not be a pro-inflation factor. The introduction of new higher rates of excise duties on cigarettes will contribute to the increase of overall inflation at the end of 2010 by 0.9 percentage points. The foreseen increase in administered prices will also impact the overall index. The forecast for the annual average inflation in 2010 is for 2.4%, and for the end-of-period inflation is 3%.

During the period 2011–2012 a lower rate of inflation is expected as compared to the years before 2008. With regard to international prices, the assumptions are for relatively low rates of increase in the prices of oil and raw materials. The effect of the future adjustments of excise duties will not increase inflation, as in 2010 Bulgaria already satisfies the criteria for a minimum level of these rates. In fact, as of January 1 2010 excise duties on cigarettes were increased to EUR76 per 1000 units, or 20% above the minimum stipulated in the European Union. No further increases are expected in 2011 and 2012.

The moderate growth rate in domestic demand will limit inflation to lower levels compared to the years prior to 2009. The development of the inflation processes in the next years will

19. According to the Eurostat methodology this index is obtained by excluding changes in food, energy goods, tobacco products and alcohol prices from overall inflation.

20. Regardless of its high contribution, the annual inflation of this component also slowed down considerably compared to the general trend (3.4% as of December). The other component of the base inflation - the non-energy industrial goods, also registered a significant slowdown to 0.8% on an annual basis and a contribution of 0.2 percentage points. They were influenced by the decline in household consumption observed since the beginning of the year and in particular by the reduced consumption of non-food goods (-15.8% for the first nine months of 2009 compared to the same period of the previous year), which affected to a large extent the prices of durables.

21. Annual change of 2.3%.

also depend on the process of adjusting the levels of income and labour productivity to the average EU level. The maintaining of an economic growth and productivity growth, higher than that for the EU, will contribute to keeping the rate of real convergence without inflationary pressure in Bulgaria.

### 2.3.4. External Sector

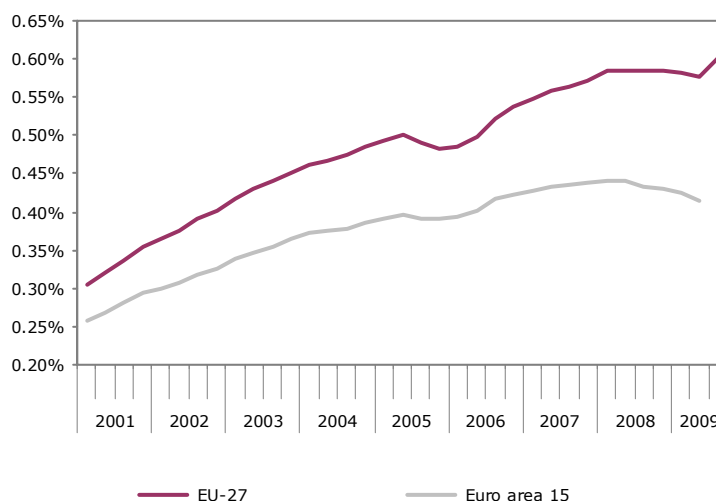
In the last few years the main factors behind the external sector dynamics of the Bulgarian economy were the high rates of economic growth, the level of the international prices of metals and energy resources.

In 2008 the Balance of Payment current account deficit reached 25.4% of GDP; the increase in trade balance deficit contributed mostly to this. However, a stabilisation of the current account deficit was observed in the second half of the year. This resulted from the considerable decrease in the prices of energy and metal resources as well as in domestic demand.

In the first nine months of 2009 the current account deficit decreased annually by 63.9% due to the same factors as those that have contributed to the 2008 current account stabilization.

The 2008 trade deficit amounted to EUR 8.6 billion. It increased by 18.7% and reached 25.2% of GDP. The export and import of goods registered growth of 12.5% and 14.7%, respectively.<sup>22</sup> In the second half of 2008 the external trade slowed down, and in the fourth quarter registered a decline which continued in 2009 when both the export and import of goods decreased by 26.6% and by 35.4%, respectively.<sup>23</sup> The decrease in external-trade turnover is due to the lower prices of energy, goods and metals, weak overall (and particularly investment) demand, and the difficult access to external financing.

**Fig. 6: Share of Bulgarian exports in total EU imports (annual)**



Source: Eurostat, Bulgarian National Bank.

22. In 2008 the following groups of goods had a major contribution to the increase in export: materials and raw materials for production of foods, oil products, machinery, non-ferrous metals, foods, furniture and household appliances. The most significant decrease in exports was reported for the clothes and shoes group of goods, which most likely resulted from the strong competition of cheap clothes and the decreased external demand. In terms of the import of goods, in 2008 the largest increase in nominal terms was registered by the groups of raw oil, investment goods, cast iron, iron and steel, and foods.

23. During the period January – September 2009 a decline in export was observed in all groups of goods except for foods, cigarettes, medicine and cosmetics, electrical machines and transport vehicles, the share of which was 14.9% of the total exports during the period, compared to 9.2% during the corresponding period of the previous year. During the first nine months of 2009 a decline was observed in all groups except for foods, drinks and cigarettes, medicines and cosmetics, and tobacco.

In 2008 the service sector was characterised by a positive development. The balance of services increased by 2.1% compared to the previous year.<sup>24</sup> In the first nine months of 2009 the balance of services continued improving and reached EUR 1.36 billion, which is by 59.2% higher than for the same period of 2008.<sup>25</sup>

In 2008 the income account was negative and amounted to EUR 1.33 billion, which is an increase of 18.8% compared to the previous year. The FDI disbursements were 13.1% higher than in 2007, and disbursements under other investments – by 19%. The net current transfers amounted to EUR 503 million, growing by 50%. This increase is due to a large extent to the transfers from the European Union funds.

The financial account in 2008 amounted to EUR 11.38 billion and provided full coverage of the current account deficit. The FDI inflow reached EUR 6.55 billion (19.5% of GDP).<sup>26</sup> A decline in investment activity was observed in all sectors. The most significant nominal decline was registered in financial intermediation, real estate and trade. The economic and financial crisis is the main factor which increases the investment risk and makes foreign investors cautious. However, Bulgaria is increasingly attractive for foreign investors: it is the only economy in the region that has recently received a credit rating upgrade.

In the first nine months of 2009 the financial account was positive and amounted to EUR 1.79 billion, compared to EUR 11.04 billion in 2008. Foreign direct investments amounted to EUR 2.33 billion compared to EUR 5.87 billion during the corresponding period in 2008 (Fig. 7). The main factors behind these developments were the risk-averse behaviour of the foreign investors and banks in Bulgaria,<sup>27</sup> and the measures undertaken by the government and the central bank at the end-2008 and the beginning of 2009. The additional social and investment expenditure of the government and the changes in the Bulgarian National Bank regulations (to better align them with international standards) increased the liquidity of the economy and allowed the local economic agents to decrease their foreign debt. This resulted in a decrease in the international currency reserves of the Bulgarian National Bank by approximately EUR 1 billion during the period January–July 2009. The decrease in the international currency reserves was fully offset in August–November, when they increased by EUR 1.2 billion.

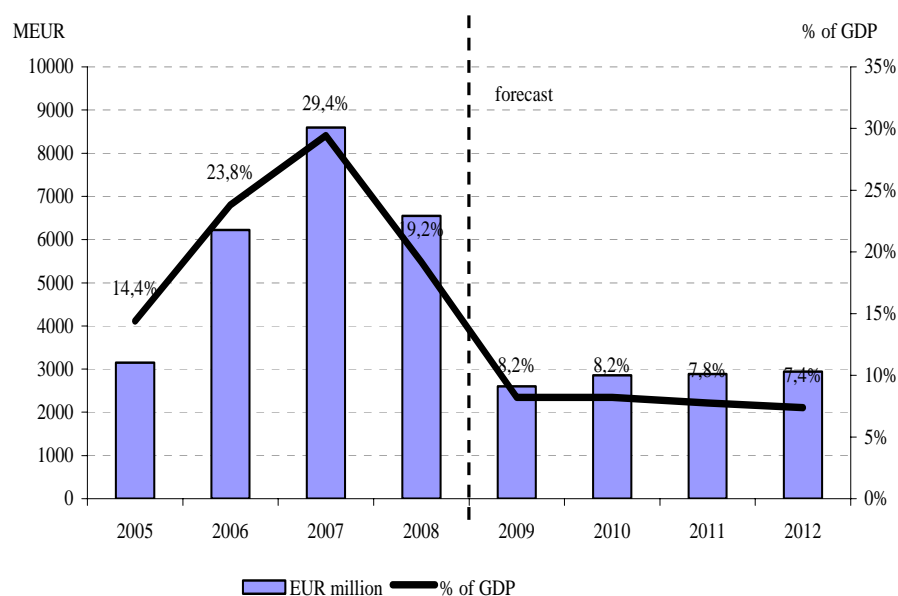
This increase resulted to a large extent from the two disbursements of Special Drawing Rights issued by the International Monetary Fund, proportionally to the quotas of the Fund Member States, with the allocation for Bulgaria amounting to closely EUR 665 million. In addition, the increase of the government deposit by EUR 296.2 million and of the deposits of commercial banks at the Bulgarian National Bank by EUR 201.3 million during the period August–November 2009 resulted in an increase of EUR 205.7 million in the gross foreign reserves of the Bulgarian National Bank for the period January–December 2009.

24. The income from foreign tourists was higher by 10.8%. During the period analysed a considerable increase was observed in the travels of Bulgarian citizens abroad, which resulted in an increase in the expenses on travel outside the country by 21.5%. This is due to our accession to the European Union, the entry of low-cost airlines and the growth in the income of the population.

25. The improvement is due to a large extent on the drop of transport expenditure and the cost of travel of Bulgarian citizens abroad.

26 The real estate and business services (29.1%), the financial intermediation (24.6%) and the processing industry (12%) had the largest share in the structure of direct foreign investments with accumulation as at the end of 2008. To a large extent these branches of industry kept their major importance during the first nine months of 2009; the largest share in the inflow of direct foreign investments is for the financial intermediation (28.9%), the real estate and business services (17.1%), the trade (13.5%) and the manufacturing (12.3%).

27. In 2008 banks in Bulgaria were financing their activity by attracting financial resources both from residents and from abroad in the form of deposits of non-residents, loans from foreign financial institutions or withdrawal of foreign assets. With a view to the development of the global economic crisis the banks in Bulgaria and the foreign investors became more cautious in the extending of debt.

**Fig. 7: Foreign direct investment**

Source: Bulgarian National Bank, Agency for Economic Analysis and Forecasting.

In 2008 the foreign debt of Bulgaria amounted to EUR 37 billion, or 108% of GDP. During the period January–October 2009 loans and deposits amounting to EUR 5.21 billion were received, and the principal service liabilities amounted to EUR 5.39 billion. As a result of this, the gross foreign debt reached, as of end-October 2009, EUR 36.8 billion, or 107.3% of the GDP. The non-residential deposits in local banks (EUR 829.8 million) and the long-term loans repaid by local banks (EUR 562.1 million) have the largest contribution to this decrease in the debt by EUR 184 million. In the medium term, the trend of a decrease in the gross foreign debt will continue.

**Table 3: Balance of payments dynamics**

% of GDP	2008	2009*	2010*	2011*	2012*
Current account	-25.4	-9.9	-6.7	-4.2	-3.8
Trade balance	-25.2	-12.4	-9.9	-8.9	-9.0
Services, net	2.3	4.1	4.3	4.4	4.4
Income, net	-3.9	-2.8	-3.2	-2.7	-2.4
Current transfers, net	1.5	1.2	2.1	3.0	3.3
Capital account	0.8	1.7	2.7	3.0	3.3
FDI inflows	19.2	8.2	8.2	7.8	7.4

\* forecast

Source: Bulgarian National Bank, Agency for Economic Analysis and Forecasting.

In 2009 the current account deficit is expected to drop to 9.9% of GDP, down from 25.4% in 2008 (table 3). The main factor for this dynamics is the trade balance. Regardless of the shrinking export-of-goods volume by 12%, the lower domestic demand leads to even faster decrease in volume of import of goods (by 22.8%). This, together with the reduced international prices of metals, foods and energy goods, resulted in improving the trade balance deficit from 25.2% of GDP in 2008 to 12.4% of GDP in 2009.

The effects of the global economic crisis on the other components of the current account are also in the direction of decreasing the deficit. The balance on services is estimated to improve by 1.8% of GDP<sup>28</sup> in 2009, and the balance under the “Income” account is expected to improve by 1.1% of GDP.<sup>29</sup>

The global economic crisis has had a negative impact on the financial account inflows. In 2009 the decrease in FDI in the country was tangible and FDI is expected to amount to approximately EUR 2.6 billion at the end of the year (about 8.2% of GDP). The slowdown of the economic activity in the country, however, leads to a significant decrease in the current account deficit, as a result of which FDI will finance about 83% of the deficit in 2009 against 76% a year earlier.

In the medium term the current account deficit is expected to shrink smoothly and reach 3.8% of GDP in 2012. The main proportion of this improvement will be due to the external trade balance. In 2012 the export of goods is expected to have recovered the volume observed in 2008, and the import is expected to be by about EUR 4 million lower than that in 2008 as a result of lower domestic demand. The positive net capital inflow into the financial account is expected to continue being driven by FDI and to provide coverage for the current account and the capital account deficit, as a result of which the currency reserves are expected to grow. From the point of view of the sustainable development of the balance of payments, the expectations are that the FDI coverage of the current account deficit will gradually increase and reach 194% in 2012 (Table 3).

### 2.3.5. Monetary Sector

The main objective of the monetary policy of Bulgaria is to maintain price stability through securing the stability of the national currency. This is within the framework of a currency board arrangement and a fixed exchange rate of the national currency to the euro.<sup>30</sup>

The annual growth in monetary and credit aggregates registered a slowdown due to the decline in economic activity and the decrease in inflation. As at the end of November 2009 broad money registered an annual growth of 6.4% against 8.8% in December 2008. As a result of the relatively high price of borrowing and the tightened credit conditions, credit growth rate is slowing down, and as of end-November 2009 the annual increase in non-government loans dropped to 4% compared to 31.6% at the end of 2008.

It is expected that the gradual recovery of economic activity in 2010 will accelerate monetary and credit growth rates. The gradual calm-down of international financial markets, supported by the European Central Bank’s yearly liquidity, leads to stabilisation and moderate decrease of fixed-term deposit rates in Bulgaria. Since October 2009 these have followed a downward trend.

As a continuation of the counter-cyclical policy and for the purpose of facilitating banks’ liquidity management, at the end of 2008 the Bulgarian National Bank adopted amendments in the regulation of the minimum reserves requirement. In October 2008 the Governing Council of the Bulgarian National Bank introduced amendments in Ordinance No. 21 on the minimum reserves requirement maintained with the Bulgarian National Bank by banks, according to which 50% of vault cash is recognised as banks reserve assets.

28. Although the shrinking revenues from export of services, in particular tourism, is tangible, the lower fuel prices have a positive impact on it with respect to the transport costs and offset the related negative effects.

29. While the economic crisis has a negative impact on the income received by Bulgarian citizens abroad, the effects of the low levels of the international interest rate on the foreign debt servicing, the repayment of part of the foreign debt and the deterioration of the profit of Bulgarian companies with foreign participation are dominating.

30. The principles of the currency board arrangement include a full coverage of the monetary obligations of the central bank by foreign reserves, as well as its obligation to purchase and sell the reserve currency (the euro) without limitations and at a fixed exchange rate. As part of the overall framework of the currency board arrangement, the central bank cannot perform open market operations and be a lender to the commercial banks or to the government.

In November 2008 a decision to additionally decrease the minimum reserves requirement was adopted, according to which they fell from 12% to 10% of all funds attracted, and as of 1 January 2009 the level of the minimum reserves requirement for funds attracted from non-residents became 5%, and for the funds attracted from the central and local budgets - 0%. As a result, a considerable liquidity was ensured for the banking system and the overall effect of the amendments in the regulation is assessed at EUR 1.5 billion.

The counter-cyclical policy of the Bulgarian National Bank with regard to the banking regulations was also reflected in the amendments to the Ordinance on the Evaluation and Classification of Risk Exposures of Banks and the Allocation of Specific Provisions for Credit Risk, introduced in February 2009. These amendments streamline the requirements for classifying and allocating of provisions for receivables and thus more favourable opportunities for renegotiating the conditions and for reducing the provisions for bank credits were created. They bring the Bulgarian banking regulations closer to international standards.

The growing supply of financial services outside the banking sector necessitated amendments to the Law on Credit Institutions, which regulates the regime of registration of persons and entities acting as financial institutions. The amendments adopted in March 2009 introduced a more stringent regime for the persons and entities providing financial services, and new reporting and supervisory requirements on their activity.

With the new amendments to the Law on Credit Institutions, other financial institutions (leasing companies and other financial institutions, not affiliated to banks, with main activity loans provision of non-publicly raised or other non-repayable funds) were also included within the scope of the credit register. In compliance with these requirements, in July 2009 a new Ordinance 22 on the Central Credit Register was adopted, which entered into force on 1 October 2009. The extended scope of the central credit register allows banks and non-banking institutions to make a quicker and more precise analysis of the indebtedness and credit risk of borrowers.

### **Box. 1. Exchange rate regime, competitiveness, and the global economic crisis**

The increase in the competitiveness of the economy is closely related to the improvement of labour productivity and the greater flexibility of product and factor markets. These two conditions determine the sustainability of the processes of real and nominal convergence of the country. The intensification of the external trade and financial flows accelerates the processes of both nominal and real convergence.

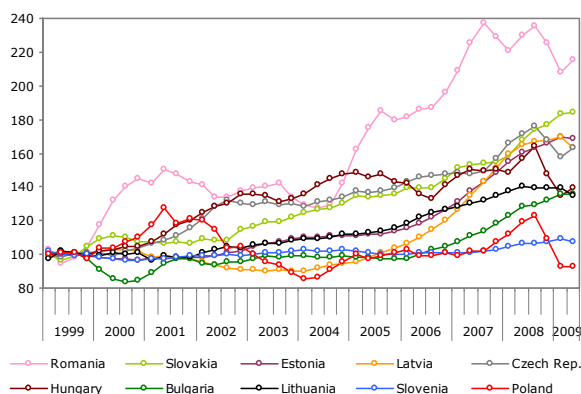
The role of the exchange rate regime for the competitiveness of a given country and its economic development is subject to theoretical and empirical debate. One of the standard understandings of this issue is that the nominal depreciation of the currency of a country with a floating exchange rate supports its competitiveness in the short term by making its exports cheaper. The floating exchange rate also provides an opportunity for implementing an autonomous counter-cyclical monetary policy. In practice, however, there are transmission channels, which can cushion or fully neutralise the short-term positive effects of the currency depreciation and the possibilities for implementation of autonomous monetary policy. Among the factors which neutralise the positive effects of the currency depreciation are making import more expensive, the increase in inflation, salaries and inflation expectations, the effect on the balances of companies and banks. These factors are more strongly expressed with small and open economies like Bulgaria, for which the opportunities for implementing autonomous monetary policies are limited. In the medium term, the depreciation of the local currency does not lead to a sustainable improvement of the competitive position of the country.

The depreciation of the national currency makes the import component of the production activities (the import of materials and raw materials, the import of investment goods) more expensive, which results in higher costs for enterprises and deteriorates the competitive positions of the export. The higher import prices also influence directly the level of inflation in the country. The higher inflation, on its part, puts pressure for nominal wage increase and this additionally increases the costs for enterprises. For this reason the flexibility of the labour market is a much more important factor for maintaining the competitive position of the economy than the nominal change in the exchange rate. The depreciation of the local currency also has a direct negative impact on the financial condition of the enterprises, since the servicing of the obligations in foreign currencies becomes more expensive (balance-sheet effect).

The dynamics of the real effective exchange rate (based on the nominal unit labour costs) demonstrated a trend of smooth growth over the last ten years in all new EU Member States. This results from the successful

economic convergence, achieved by these countries both in nominal and in real terms. The development of the real effective exchange rate in the new EU Member States shows that the nominal exchange rate regime, chosen by them, has no influence. Although for some countries a possibly higher rise in prices exists in some periods compared to the long-term trend, as a whole the appreciation shows the anticipating rate of labour productivity in the corresponding country compared to the trade-weighted increase in productivity in its partners.

**Real effective exchange rate, ULC based 1999=100**



Source: European Commission.

Note: Countries sorted in descending order by value in latest period.

The analysis of the response of the individual economies of the Central and East European countries to the global economic crisis shows that the role of the exchange rate regime for mitigating the effects of the crisis is insignificant. The empirical information available does not support the advantage of the floating exchange rates in the current deteriorated situation. The data on the share of exports of the Central and Eastern European countries in the import of the EC27 countries in euros shows that the countries cannot be grouped with regard to their exchange rate regime – fixed or floating. The dynamics of the total export in euros of the new EU Member States also does not differ significantly in the countries with fixed and floating exchange rate. International trade in all countries shrank significantly at the end of 2008 and during 2009 and this happened simultaneously, regardless of whether the exchange rate was fixed or floating, and can be explained with the common shock – a significant decline of external demand. In August-November 2009 a more favourable dynamics of the export of Bulgaria compared to the other new EU Member States was observed.

Bulgaria is among the countries with the most flexible labour market and positive employment developments since the year 2000. As a result of the steady increase, the participation rate gradually reached the average levels of most of the Central and East European countries. For the period 2000 – 2008 the real growth rate of average wage was more moderate compared to the other new EU Member States.

In all new Member States unemployment started increasing at the beginning of 2009, but its pace varies substantially by country. The countries with the smallest increase in unemployment for the period January – October 2009 are Romania, Poland and Bulgaria. The influence of the crisis on the labour costs of enterprises is of key significance for maintaining cost competitiveness. The share of labour costs in Bulgaria is among the lowest in the EU, and the dynamics of the indicator follows the general dynamics of growth characteristic in other countries. This makes it possible for the lower demand as a result of the recession to be taken partially through reducing the profit margin.

In the medium-term prospect (2010–2012) an economic scenario will be possible in which the process of catching up with the level of income in the euro area will continue. It is expected that the recovery of the positive economic growth will be achieved mostly in the field of export, while investments and consumption will react at a later stage. External competition creates conditions for improved discipline of companies with regard to labour costs. In this way the labour productivity will increase relatively strongly, by over 3% in 2012. The export-oriented growth will lead to a continuing restriction of the external-trade deficit and will contribute to strengthening sustainability in the process of real convergence.



## 2.4. Benefits of Structural Reforms

The effects of structural reforms are manifested over a long-term horizon, necessitating consistent efforts on behalf of the government.

### 2.4.1. Pension and Social Security Reform

On 1 January 2010 the contribution to the “Pensions” fund in Bulgaria fell by 2 percentage points – 1.1 percentage point for the employer and 0.9 percentage points for the worker. In line with the available resources, the contribution will be decreased by further 3 percentage points by 2012, i.e. a total of 5 percentage points during the mandate of the government.

The National Reform Program reported that contracts on active ageing and prolonging working lives amounting to EUR 10.3 million were concluded. The results from different surveys show that increasing the retirement age and reducing pension contributions leads to lower than expected increase in public expenditure on pensions by 2050 (0.6-0.84 percentage points of GDP) for each additional year of employment.<sup>31</sup> Raising the effective retirement age (currently about 60 in EU 15) to the average legal pension age in EU 15 (65 years), will lead to an increase in the GDP per capita by about 9% by 2030 and by 13% by 2050. In addition, raising the retirement age by three years will reduce the number of men in pre-retirement age (56–65 years) outside the labour market by approximately one quarter to one third.

The three-pillar pension system should lead to higher retirement age (by one or two years for all employees insured only in the first pillar, as well as for these insured in the two supplementary pillars). In particular, it is envisaged that the retirement age for men and women will be equated at 63 years by the end of 2012, and at 65 by the end of 2015.

The increased retirement age would contribute to reduced burden on public finances arising from increasing salaries and accumulated interest on savings. This effect, however, is partially offset by decreasing pension contributions, leading to increasing the subsidies from the republican budget for the pensions under the first pillar.

The reduction of the “generosity” of the social security systems (the relative decrease in unemployment benefits compared to labour income) would result in an increase in GDP by close to 2% in the long term and to an almost similar increase in employment.<sup>32</sup> In terms of the Bulgarian social security system, unemployment benefits are low and stimulate active job-seeking.

### 2.4.2. Improving the Business Environment

If in the whole EU actions are undertaken to decrease the administrative burden by 25% in line with the Lisbon Objectives, GDP will increase by 1.1-1.9%.<sup>33</sup> According to a simulation of the QUEST model, this leads to an increase in GDP by about 0.3% in 2020, and the effect may amount to 0.7% if commodity markets are sufficiently flexible and competitive. According to a simulation of the WorldScan model GDP will increase by 0.6% by 2020 for EU 25.

A recent review of the Bulgarian legislation identifies 398 obligations to inform stipulated in 33 national laws and the corresponding secondary legislation. The administrative costs

31. Arpaia, A., W. Roeger, J. Varga, J. in 't Veld, I. Grilo, P. Wobst, 2007, Quantitative Assessment of Structural Reforms: Modelling the Lisbon Strategy, European Economy, Economic Papers No. 282, page 22-26.

32. Roeger, Varga and 't Veld, 2008, Structural Reforms in the EU: A simulation-based analysis using the QUEST model with endogenous growth (European economy, Economic Papers 351, December 2008).

33. COMMISSION STAFF WORKING DOCUMENT - Spillovers and complementarities in the context of the Lisbon Growth and Jobs Strategy including economic effects of the Community Lisbon Program.

related to them amount to EUR 81 million, and the administrative burden to EUR 51.5 million. The Bulgarian government proposed the elimination of 136 obligations, to save businesses about EUR 13 million. On the basis of this proposal, the Council of Ministers approved a national target to reduce administrative burden for businesses by 20% by 2012. The reduction of administrative burden for businesses in Bulgaria by 20% would result in an increase in GDP by 0.72% by 2025.<sup>34</sup>

Taking into account the effects on competition, the reduction of administrative costs would have a greater effect on GDP. In particular, increased competition and new market entries prevent from decreasing employment and lead to increasing real wages. Thus, if reducing administrative burden contributes to new market entries, real GDP would grow by 1.8% by 2025.<sup>35</sup> Reducing administrative burden for businesses in Bulgaria by 20% would result in an increase in GDP by 1.44% by 2025.

In both simulations the effects stem mainly from the increased labour productivity of workers, since workers previously involved in administrative activities can now perform more productive activities.

### 2.4.3. Lowering Barriers to Entry

In September 2009 the start-up capital for commercial companies in Bulgaria was reduced from EUR 2 500 to EUR 1. This can be regarded as decreasing fixed costs for market entry, allowing for reduced mark-ups registered in imperfect competition. The entry of more companies increases GDP and the demand for labour.<sup>36</sup>

The reduction of the mark-ups would result in a decrease in the level of structural unemployment by 0.7 percentage points and an increase in GDP by 1.4% in 2025 in EU 15.<sup>37</sup>

The exogenous reduction of the start-up capital by 1/2 percentage points leads to a higher GDP by about 0.75% by 2020. Since financial costs in the EU are five times higher than those in the USA, their unification will lead to higher GDP by 1.5% in the long term and to increasing the share of the R&D costs as a percentage of GDP by 5 percentage points.

Other analyses use a large database of European firms to study how business entry regulation drives the creation of new firms: the sample has about 3.5 million annual observations over the years 1998–1999, all from European countries.<sup>38</sup> The annual entry rate varies from a high of 19.2% in Lithuania to a low of 3.5% in Italy. Overall, the entry rate is an average of about 15.7% of firms in Eastern European countries, and 11.9% for Western European countries. Countries with lower entry barriers, for example lower minimum capital requirements, have levels of entrepreneurship that are by 30% higher than the corresponding countries with high entry barriers.

### 2.4.4. Shifting Taxation from Labour Income to Tax on Consumption

In Bulgaria, tax policy over the recent years was oriented to increasing the tax collection rate and reducing the grey sector.

The trend for consistent transfer of the tax burden to the indirect taxes and the gradual removal of a number of tax exemptions from the general taxation regime continues. The

34. If the methodology of Arpaia et al (2007) is used.

35. Griffith, R., R. Harrison (2004), "The link between product market reform and macro-economic performance", European Economy Economic Papers No. 209, 2004.

36. Djankov et al, (2002), "The Regulation of Entry" (Quarterly Journal of Economics, February 2002, Vol. 117, No. 1).

37. Arpaia et al 2007, op. cit.

38. Klapper, Laeven and Rajan (2006).

introduction of a flat rate for taxing the income of natural persons at the beginning of 2008 was also an important step in the direction of simplifying the tax system.

The results from some surveys show that the reduction of the difference between the gross and the net income of workers as a result of the reduction of taxes on labour and consumption has led to a decrease of 0.16 percentage points in the level of the structural unemployment and an increase of 0.14% in GDP.<sup>39</sup>

The increase of VAT by 1 percentage point at the expense of the taxation of labour income leads to a GDP, higher by 0.24% in ten years compared to the base scenario, and by 0.35% in the long term, as well as to employment, higher by 0.29% in ten years compared to the base scenario, and by 0.31% in the long term.<sup>40</sup>

#### 2.4.5. Further Liberalisation of the Electricity Market

Since the middle of 2007 the domestic electricity and gas market in Bulgaria has been *de jure* liberalised. The implementation of legal rights into practice, however, needs broadening the powers and strengthening the capacity of the national regulatory authority; increasing the requirements to transmission companies providing non-discriminating access to the transmission network to all market participants and developing the network in the interest of consumers; developing more favourable competitive conditions for producers and providers through an electric power exchange.

Increased competition in the electricity market would result in a decrease in the price of electricity by an average of 10%, and the effect would vary from 2% for large households to 17% for small industrial companies.<sup>41</sup> Simulations using the QUEST and WorldScan models show that, according to the first model, GDP would increase by 0.3-0.4% in the long term, and by 0.3% by 2020 for EU 25 according to the second model.<sup>42</sup> In the case of Bulgaria, the effect on price reduction could be higher as a result of the previous low degree of liberalization.

#### 2.4.6. Increasing Energy Efficiency

In December 2009, the government adopted a National Energy Strategy 2020, including intermediate targets by 2013. The main priority of the government is to increase energy efficiency; to this end the government has set the target of decreasing the energy intensity of GDP by 20% by 2013, and to decrease energy intensity of GDP by 50% by 2020. The second priority set by the government is to increase the share of local renewable energy sources (RES) to 12% of total final energy consumption by the end of the mandate and to increase this share to 16% by 2020.

The simulation using the WorldScan model shows that by 2020 GDP of EU 25 will increase by 0.4% if the energy efficiency improves, with conservative assumptions about the market share of the corresponding technologies and their annual dissemination rate.<sup>43</sup>

39. Arpaia, A., W. Roeger, J. Varga, J. in 't Veld, I. Grilo, P. Wobst, 2007, Quantitative Assessment of Structural Reforms: Modelling the Lisbon Strategy, European Economy, Economic Papers No. 282.

40. Structural Reforms in the EU: A simulation-based analysis using the QUEST model with endogenous growth (European economy, Economic Papers 351, December 2008), where "long term" means 100 years after the introduction of the reform.

41. Martin, R., M. Roma, and I. Vansteenkiste (2005), "Regulatory reforms in selected EU network industries" European Central Bank Occasional Paper Series, no. 28 (April).

42. COMMISSION STAFF WORKING DOCUMENT - Spillovers and complementarities in the context of the Lisbon Growth and Jobs Strategy including economic effects of the Community Lisbon Program.

43. COMMISSION STAFF WORKING DOCUMENT - Spillovers and complementarities in the context of the Lisbon Growth and Jobs Strategy including economic effects of the Community Lisbon Program.

### 2.4.7. Improving Labour Force Qualification

If throughout the EU actions are undertaken to improve the qualification of workers, GDP will increase by 2.1% in the long term. At the same time, each additional year of education would increase GDP in the OECD countries by 0.3%.<sup>44</sup>

Under the OP “Human Resources Development” EUR 383 million are envisaged in Bulgaria for training and qualification under the following priority items: 62 (Development of systems and strategies for life-long learning in enterprises, for training and services for employees); 63 (Development and dissemination of innovative and more productive labour organisation methods); 73 (Measures to promote education and life-long learning), and 74 (Human resources development in the area of R&D).

In addition, significant reforms have started in the high education field. One draft law – on the accreditation of scientific degrees and titles, is awaiting approval in parliament. Another draft law – on the increased link between higher education and science – was also passed by the Council of Ministers. A third draft law – on the separation of academic and financial management in the universities – is already prepared and will be presented at the Council of Ministers in early February. The goal of these reforms is to increase the competitiveness of the Bulgarian university education and thus improve the quality of the labour force. τ

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44. De la Fuente A., (2003), Human Capital in a Global and Knowledge-Based Economy, Part II: Assessment at the EU Country Level, Report for the European Commission, Directorate-General for Employment and Social Affairs, and EENEE (European Experts Network on the Economics of Education) (2007), The Costs of School Failure. A Feasibility Study, Analytical Report for the European Commission.

## 3. GOVERNMENT BALANCE AND DEBT

### 3.1. Policy Strategy

The medium-term fiscal framework for the period 2010–2013, adopted in August 2009, was elaborated in the context of the budgetary reform aimed at achieving sustainable expenditure. In the course of its preparation, the “top-down” approach to decision-making on fiscal targets of recent years was applied, and the scope and number of underlying assumptions of the framework and the main horizontal policies were increased significantly. The time horizon covered was extended to four years, within the mandate of the government, and reflects policy trends related to the macroeconomic indicators and assumptions.

The main fiscal policy objectives for the period 2010–2012 are: maintain a balanced national budget throughout the period, further optimise expenditure levels and increase the efficiency and productivity of the state. Government spending will be gradually reduced after the implementation of the necessary structural reforms.

The main action to maintain macroeconomic stability is to register a balanced national budget before the adjustments for the European Funds and Programs. This approach allows for setting rigid expenditure ceilings by sectors, financed by Bulgarian taxpayers, and more freedom to ministries managing funds from the European budget, regardless of the restrictions of the fiscal framework, to implement the operational programs to the fullest.

One of the main objectives of the income policy is to overcome the lag in labour productivity growth compared to the existing growth in wages. In order to ensure medium-term fiscal consolidation and to reduce the burden of ageing population on public finances, in the short term the government plans to cut down expenditure through streamlining the extensive structure of a large part of public sectors (including the administration) and increasing public services productivity and quality. One such example is the closure of two ministries (the Ministry for State Administration and the Ministry of Emergencies and Natural Disasters) and three state agencies (for forestry, communications and tourism). Their responsibilities were taken up by other line ministries.

As a result of the efforts to overcome the crisis, the Medium-Term Fiscal Framework for the period 2010–2012 envisages that the 2009 nominal wages will remain unchanged in 2010, and during the period 2011–2012 the ratio of wage expenditure to GDP, in each preceding year, will be unchanged. It is also envisaged to limit the amount of institutional administration supporting capital expenditure with a high degree of import intensity, as well as administrative buildings renovations, excepting energy efficiency measures and accessible environment measures, at the expense of purely investment expenditure contributing to economic growth and employment.

The three-year budget forecast and the expenditure ceilings for the period 2010–2012, as well as the 2010 budget, reflect the economic measures for the recovery of the Bulgarian economy, adopted on 1 October 2009 with a decision of the Council of Ministers and oriented towards: sustainability of the macroeconomic and financial system, improving the business environment, stimulating agricultural production, developing better infrastructure, promoting employment and social assistance, developing a knowledge-based economy, and efficient management of EU funds.

A new Government Debt Management Strategy during the period 2009 – 2011 was also adopted. In the course of the Strategy development, debt management policy was considered as process closely related to and directly dependent on a multi-aspect environment, linked to maintaining of macroeconomic and fiscal stability, including confidence in the currency

board system. The most significant risks for fiscal consolidation (in view of the global financial crisis) were taken into account. In this respect, in addition to the medium-term priorities specified, the Government Debt Management Strategy defines long-term objectives, related to the commitments to cover the convergence criteria, stemming from Bulgaria's membership into the EU.

The main objective set in the Government Debt Management Strategy during the period 2009–2011 is to provide the resources necessary to finance the budget and refinance the debt, at the minimum possible cost, by hedging financial risks and taking into account the developments in the domestic capital market in the context of the financial system as a whole.

### 3.2. Medium-term Objectives

The medium-term budgetary objective of the Republic of Bulgaria is a surplus of 0.5% of GDP; to be covered during the whole programming period.

The medium-term budgetary objective provides a fiscal policy framework to ensure long-term stability of public finances. In addition, it is defined in structural terms, i.e. the economic cycle impact on budget performance is not taken into account in order to assess the impact of discretionary policy.

According to the revised Stability and Growth Pact, the medium-term budgetary objective pursues a triple aim:

- providing a safety margin with respect to the 3%-of-GDP deficit limit;
- ensuring rapid progress towards sustainability, taking into account the economic and budgetary impact of ageing populations;
- taking (i) and (ii) into account, allowing room for budgetary manoeuvre, in particular taking into account the needs for public investment.

Structural budget deficit of 1.75% of GDP will ensure the achievement of the first aim with a 95% probability.

With regard to the second aim, the minimum amount of the medium-term budgetary objective is defined using a three-component formula. The first two components show the level of budget balance that would stabilise the level of government debt at 60% of GDP (taking into account the estimated long-term GDP growth) and pre-finance implicit liabilities in the long term. The third component pertains to an additional tightening of fiscal policy in case the level of government debt is already above 60% of GDP. The latter does not apply to Bulgaria. According to the long-term estimates of the Ageing Working Group to the EPC at the EC, a structural budget deficit of 1.8% of GDP would satisfy the condition for long-term sustainability of fiscal policy by pre-financing 33% of implicit liabilities.

The level of the medium-term budgetary objective is the more stringent of the two conditions, or specifically for Bulgaria – a structural deficit of 1.75% of GDP. For members of the euro area or ERM II there is an additional requirement, stipulating that the medium-term budgetary objective shall not be lower than a deficit of 1% of GDP.

The medium-term budgetary objective of a surplus of 0.5% of GDP satisfies the triple aim set in the Stability and Growth Pact (table 4). In particular, it ensures falling government debt to GDP ratio in the long term and fully pre-finances future ageing-related expenditure. Thus, the medium-term budgetary objective is more ambitious and pre-finances a greater part of implicit liabilities compared to a minimum required level of a 1.75% deficit or a minimum required level of a 1% deficit for members of the euro area or ERM II.

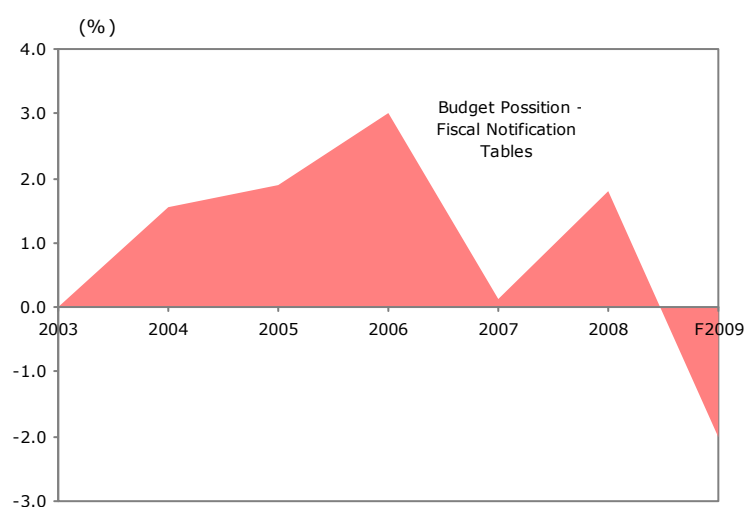
**Table 4: The Medium-term Budgetary Objective**

	Level set by Bulgaria	Minimum level required for euro area or ERM II members	Minimum required level for Bulgaria
Debt-stabilizing level at 60% of GDP	-2.8%	-2.8%	-2.8%
Pre-financing implicit liabilities ratio	100%	57.3%	33.9%
Ageing-related expenditures	3.2%	3.2%	3.2%
Medium-term budgetary objective	0.5%	-1.00%	-1.75%

Source: European Commission, Agency for Economic Analysis and Forecasting.

### 3.3. Implications regarding the Budget for 2010

The budgetary position of Bulgaria as of end-2008 was a surplus amounting to 1.8% of GDP. The central government and public social security funds registered surpluses, while local governments reported a deficit of -0.4% of GDP.

**Fig. 8: Budgetary balance (% of GDP)**

Source: Ministry of Finance.

The year 2008 had two phases with regard to trends determining parameters on the revenue side of the budget. This underpinned fiscal policy actions to achieve fiscal targets for the year. Revenue trends in the first three quarters of 2008 followed the model of recent years, characterised by stable, higher-than-planned revenue growth. This trend was primarily determined by sustainable economic growth, the high imports growth rate, favourable developments on international markets. The last quarter of the year, however, reflected higher uncertainty after the bankruptcies of some of the largest financial institutions in the USA and the subsequent rapid crisis transmission in Europe.

The deepening global economic crisis, bringing about huge price adjustments of commodity and financial assets, and significant production and consumption slump at the end of the year

led to a negative economic impact, affecting revenues from VAT on imports. These changes led to considerable economic deterioration at the end of 2008, with a significant fall in exports and imports and the economy registered a considerable slowdown.

Deteriorating VAT revenues in the last quarter neutralized the previously estimated 2008 revenue over-performance. Regardless of this, the late manifestation of negative fiscal effects, arising from shrinking trade, allowed overall tax revenues to offset lagging VAT revenues for the first nine months of the year, making yearly tax revenues on a cash basis reach 99.9% of planned tax revenues. Lagging revenues from grants were offset to a large extent by over-performing non-tax revenues. Thus the total amount of revenues and grants under the 2008 consolidated fiscal program reached 39.1% of GDP; in nominal terms revenues were close to what was planned in the Law on the State Budget, and registered a nominal growth of 11.3% compared to the previous year.

The amount of expenditures (including the contribution to the EU budget) under the 2008 consolidated fiscal program reached 37.3% of GDP compared to 41.5% of GDP in 2007. If we exclude one-off effects from settling Iraqi debt on the 2007 expenditure side (increase in 2007 expenditures with a capital transfer amounting to Iraqi debt which accounts for 3.3% of GDP) and compare the 2007 expenditures to 2008 expenditures, we observe a shrinking of 2008 expenditure by about one percentage point, with total expenditures in compliance with the commitment to remain below 40% of GDP.

At the beginning of October 2008, the changing economic environment necessitated the approval by the National Assembly of additional expenditures, financed mainly by expenditure optimization from annual fiscal targets implementation. As a result, total consolidated expenditures on a cash basis (including additionally approved expenditures) amounted to 99.8% of 2008 planned expenditures. The bulk of approved funds financed actions to compensate the hardest hit by high food, energy, etc., prices; energy benefits to low-income households; update of some pensions; one-off pension supplements to all pensioners; additional healthcare financing, etc.

The provision of offsetting measures in expenditures to finance additional priority expenditures with lagging VAT import revenues ensured stability of the fiscal position of the country at the end of the year, the 2008 consolidated surplus under the ESA 95 methodology amounting to 1.8%.

During the first half of 2009 budget implementation followed a pessimistic trend than envisaged at the end of the previous year. The global unfavourable economic environment resulted in a serious fall in trade and affected a number of export-oriented sectors. In addition, the gas crisis of end-January also had a negative impact on the real economy. These effects, coupled with the slowdown in final consumption and investments, led to shrinking GDP during the first two quarters of the year by respectively -3.5% and -4.9% on an annual basis.

The slowdown in economic activity brought about new estimates of 2009 macroeconomic parameters, and consequently of new estimates of 2009 fiscal parameters. The forecast of the Agency for Economic Analyses and Forecasting, updated in the end of the year, showed annual GDP falling by 4.9%.

Under these conditions, consolidated revenues were negatively affected, particularly VAT revenues corporate tax revenues, social security contributions and health contributions, property tax revenues in municipal budgets, etc. Since the beginning 2009 non-interest expenditures and transfers in the republican budget were limited to 90% of the approved levels in the 2009 Budget Law. Shrinking revenues and forecasted significant underperformance of annual plans, however, exceeded underlying fiscal buffers, and in the middle of the year serious deterioration of consolidated balance on an annual basis was imminent.



Regardless of the possibility envisaged in the 2009 Budget Law to change target consolidated balance level in case of negative economic developments from a surplus of 3% of GDP to a balanced budget on a cash basis, the trends in the budget implementation limited the opportunities for expenditure-limiting measures in the second half of the year. This to a large extent necessitated the subsequent budget update and annual fiscal target amendment to a minimum possible deficit on a cash basis.

The newly elected government, starting its term in the last week of July, undertook decisive actions to stabilise the fiscal position and to compensate the imminent revenue underperformance. The first step was to discuss and adopt a package to additionally limit non-interest expenditures under the 2009 republican budget, outside the buffer specified above, amounting to about 1.8% of GDP. Measures were undertaken to increase revenue collection as well as to strengthen customs border control and reinforced control and inspections by revenue administrations to cut illegal imports, and counteraction of tax fraud. The fiscal effect of these measures amounted to 0.5% of GDP. Thus, the collection efficiency of public receivables was improved, fiscal discipline was strengthened and expenditure policies were optimised to better respond to the limited budgetary resources, and to finally stabilise the 2009 fiscal position.

The government continues to implement actions, to both limit expenditures and to increase revenues collection. After the update of the budget at the end of the year, Bulgaria is among the EU countries with the lowest deficit in 2009, and according to the ESA95 methodology the consolidated deficit is estimated to be about 1.9% of GDP (0.8% of GDP on a cash basis).

The main budgetary parameters underlying the 2010 Law on the Budget are defined in view of achieving medium-term objectives of fiscal policy, and expenditure allocation is made in accordance with the government priorities and anti-crisis measures.

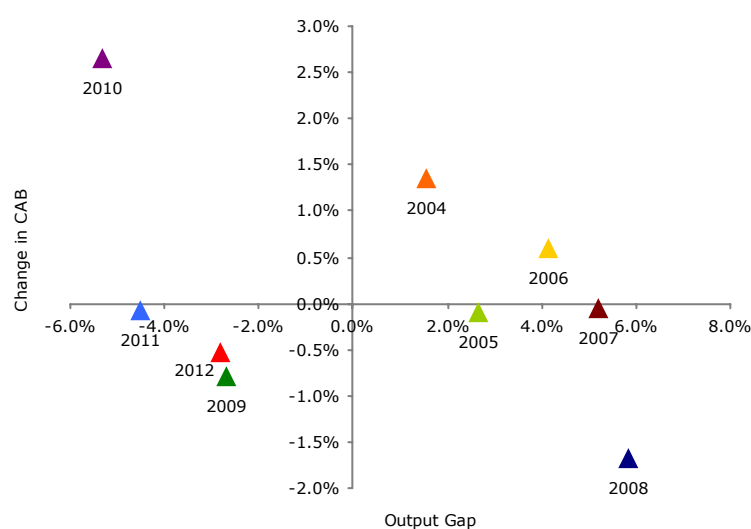
The 2010 budget envisages implementation of policies aimed at faster economic recovery, where the focus is on measures to increase growth potential of the economy. The budgetary policy fully observes the prudent fiscal policy principle, thus providing for a recovery without breaching the rule of a balanced national budget.

### 3.4. Structural Balance and Fiscal Position

In 2009, fiscal policy was counter-cyclical (Fig. 9). Measures to improve revenue collection and to limit expenditures contributed to meeting fiscal targets for budgetary position consolidation. 2010 policy is expected to be pro-cyclical as the budget position will be constrained by the need to balance between stimulating the economy and maintaining macroeconomic stability. In particular, the level of the balance-of-payments current account deficit as well as the need to maintain investor confidence in the fiscal stability of the country, necessitate more conservative budgetary targets.

The expected recovery of capital markets and investor confidence after 2010 will allow fiscal policy to avoid pro-cyclicality. The structured budget position is planned to be expansionary in 2011 and 2012 with a view to expected continuing divergence of the economy below potential level.

No one-off or temporary measures with impact on the budget balance are envisaged during this period.

**Fig. 9: Cyclical position and fiscal balances (2007 – 2012)**

Source: Agency for Economic Analysis and Forecasting.

### 3.5. Budgetary Aspects of Structural Reforms

**Table 5: Direct Budgetary Impact of Some Structural Reforms**

Main areas addressed by actions under the structural reforms	Categories affected	2007		2008		2009		2010	
		MEUR	% of GDP	MEUR	% of GDP	MEUR	% of GDP	MEUR	% of GDP
1. Accelerated additional strengthening of the administrative capacity, especially in the key areas of state management, including regulatory authorities and judicial system.	total expenditure	1.0	0.00	3.1	0.01	6.5	0.00	11.3	0.03
2. Actions for limiting the current account deficit and the higher inflation rates.	total expenditure	6.2	0.02	11.6	0.03	7.2	0.02	14.4	0.04
3. Enhancing the quality of labour force and employment by improving the efficiency and effectiveness of the active labour market policies and further reforms in the field of education oriented towards developing skills, meeting the demand in the labour market and decreasing the early leaving of school.	total expenditure	216.1	0.75	43.5	0.13	320.0	0.85	282.1	0.81
4. Development of an integrated policy for the public sector on the field of R&D and innovations for the purpose of reforming the public R&D system, moving from publicly financed R&D (based on total expenditure on R&D to GDP in 2010) to a more competitive financing, focused on key priorities.	total expenditure	15.0	0.05	127.8	0.38	113.7	0.30	-	-
5. Finalising of the life-long learning strategy and increasing the participation in it	total expenditure	96.2	0.33	-5.2	-0.02	-88.6	-0.24	-	-

Total direct effect on the budget balance	334.4	1.16	180.9	0.53	353.9	0.94		0.88
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Source: Own estimates.

### 3.5.1. Labour Market Policy and Social Inclusion

The priorities of active labour market policy during the period 2009–2012 take into account the current economic trends and budgetary restrictions. The main objective of the active labour market policy until 2012 is to mitigate the negative impact of the global economic crisis on the labour market. The measures aim at increasing labour supply and labour force mobility as well as integrating disadvantaged groups in the labour market. The focus will be on increasing flexicurity. It is envisaged to regulate the activities of the Temporary Employment Agencies, work from home and distance work.

The active labour market policy has allocated BGN 190.0 million (EUR 95 million) in 2009, and plans to allocate period average of BGN 171.0 million (EUR 85.5 million) in 2010-2012.

During the period 2009 – 2012 labour market actions within Operational Program “Human Resource Development” are oriented towards improving knowledge and skills and labour mobility, disadvantaged groups employability, developing education and training systems, and social inclusion promotion.

In 2009 the following activities were launched:

- The “Back to work” scheme meets labour market needs and the need for quality childcare for children aged 1 to 3. The scheme will be implemented by hiring unemployed to look after children in families where both parents are working. Planned funding amounts to BGN 64 million (EUR 32 million).
- The “Adaptability” scheme is a grant scheme aimed at limiting large-scale lay-offs in enterprises pressed to temporarily shift to part-time working time. Up to 6 months people on temporary part-time working time, will be included in professional training and will receive grants amounting up to BGN 132 (EUR 66) a month. Planned funding amounts to BGN 72 million (EUR 36 million).
- The “I can” scheme allows both employed and self-employed to be included in professional qualification or key competencies courses. It aims to improve their adaptability to labor market requirements and plans funding of BGN 26 million (EUR 13 million).
- The “Development” scheme provides EUR 128 million for educational activities of at least 65 thousand jobless. Under this scheme, employers are also eligible to receiving financial support, equal to the minimum salary per each of the above unemployed. The latter one is conditional upon offering a job (for a period of 9 to 12 months) to persons from this target group.

In 2009 several initiatives to improve control over medical expertise decisions on work capacity were launched. The expected results are a decrease in the number of people with permanent disabilities and less public finance pressure arising from the increasing costs of disability benefits.

During the period 2010–2012 no significant structural changes are envisaged in the field of social assistance and social services. Efforts will be targeted to increasing the efficiency of social expenditure and control, on the one hand, and improving co-ordination between social assistance system and active labour market policy to decrease social benefits dependence on the other. Pursuant to amendments to the Law on Social Assistance, Bulgarian legislation will be brought in line with the decision of the European Committee of Social Rights on the implementation of the provisions of the European Social Chart in Bulgaria regarding the restriction on the maximum period (12 months) of the right to unemployment benefits.

Social inclusion policy will be supported by Operational Program Human Resource Development. During the period 2009–2012 the “Social services for social inclusion” scheme, applying new sustainable and complex approaches to increase the quality of life of vulnerable groups, and social exclusion prevention and mitigation will be implemented. The scheme comprises three components focused on social services for children, social services for adults and development of innovative forms of social services not included in the Implementation Rules of the Law on Social Assistance. Envisaged finds amount to BGN 23 million.

### 3.5.2. Social Security

In 2010 one of the measures with strongest effect on overcoming the negative consequences of the crisis on employment and incomes is the reduction in social security contributions for the “Pensions” fund by 2 percentage points, as of 1 January 2010. This provides incentives for businesses to keep existing jobs, thus benefitting workers with low qualifications and workers in the sectors hardest hit by the crisis. The decrease of social security contributions is by 1.1 percentage points for the employer and 0.9 percentage points for the worker. An additional 3 percentage points reduction in social security contributions is planned by 2012.

It is envisaged the amounts of contributions to the remaining funds of public social security, contributions for supplementary mandatory pension insurance funds and health insurance contributions to remain unchanged. No changes are envisaged in the employer to worker ratio remaining respectively 60:40. In 2010 contribution amounts will be:

- “General illness and maternity” fund – 3.5%;
- “Unemployment” fund – 1.0%;
- “Accidents-at-work and professional disease” fund – between 0.4% and 1.1% at the expense of the employer depending on the degree of risk in the respective economic activity, or an average of 0.7%;
- “Guaranteed workers and employees receivables” fund – 0.1% at the expense of the employer;
- Mandatory supplementary universal pension fund (for people born after 31 December 1959) – 5%;
- Health insurance contribution – 8%.

The minimum and maximum amount of unemployment benefits remain unchanged compared to 2009, BGN 120 and BGN 240, respectively. This is also valid for childcare benefits for children under 2, remaining at BGN 240 in 2010.

To raise revenues from social security contributions and curb the grey economy, in 2010 the minimum monthly amount of self-employed insurance income was raised from BGN 260 to BGN 420. The maximum monthly amount of insurance income will remain BGN 2,000 in 2010, and for the next years it will depend on average insurance income, number of insured people, and on the financial stance of the Public Social Security Fund.

The main objective of 2010 pension policy is to maintain the level of social security protection for the elderly and to improve financial security of the most vulnerable elderly – the oldest living alone. In that respect, from July 1 2010 the so called “old age pension supplement” was added to pensions of people over 75. Its amount will be up to BGN 50 and will be differentiated according to pension size.

In addition, in 2010 the amount of the addition to the pension of the surviving spouse under the Social Security Code will be increased. From 20 percent the amount of the so called “widow(er)’s addition” is envisaged to increase every year from the middle of 2010 by 5 percent per annum and to reach 40% of the pension of the deceased spouse in 2013. In this

way the protection of the most vulnerable pensioners - the oldest and those living on their own, will be improved significantly. For this measure, as well as for the paying of the additional amounts to the pensions of pensioners aged 75 and over, a resource of EUR 72.54 million is envisaged in 2010.

In 2010 pensions indexation is conditional upon the employment dynamics and the revenue performance of both the Public Social Security Fund and the government budget. Such an opportunity will be subject to public discussions in mid-2010. The maximum monthly amount of the pensions in 2010 will remain BGN 700. During 2011-2012 the updating of the pensions will be done in accordance with a flexible mechanism, taking into account the economic development, the condition of the budget, the rates of growth of the insurance income, the inflation and the dynamics of employment. The pace at which the Bulgarian economy will revive will be determining for the amount by which pensions will increase.

Pension expenditure constitutes the largest share in total public spending on social security. The decrease in the social security contribution to the "Pensions" fund of the public social security since 2000, aiming at decreasing the insurance burden, and the redirecting of part of the contribution to universal pension funds (currently 5%) resulted in a significant deficit in the "Pensions" fund, covered from the central republican budget – 2.3% of GDP in 2009. Starting from 1 January 2010 the state budget supports the "Pensions" fund with a transfer equal to 12% of the total insurance base and amounting to 3.3% of GDP.

The consolidated budget of the public social security during the period 2010–2012 is forecasted to close with a deficit, which by the end of period will reach EUR 1.34 billion. For the next three years the state budget will transfer to the public social security "Pensions" fund an average annual amount of about EUR 1.2 billion.

In 2009 the minimum amounts of old-age pensions and of social pensions were increased by 10% as from 1 January 2009. From 1 April the amount of the former was raised by increasing from 1 to 1.1 percent the weight of each year of insurance in the pension formula. There was also indexation of the pensions by 9.0% as of 1 July 2009.

In 2009 growth in the expenditure for short-term benefits was observed – mainly pregnancy and childbirth benefits, and unemployment benefits. The period for which pregnancy and childbirth benefit is paid was increased from 315 days to 410 days, which lead to higher expenditure (by EUR 46.1 million as compared to 2008). As a result of the increase in unemployment in 2009, the expenditure on unemployment benefits also increased – from EUR 51.0 million in 2008 to EUR 117.4 million in 2009.

The 2009 increase in pensions will have a significant impact on the pension's expenditure in 2010, which requires additional resources amounting to EUR 239.7 million. The average amount of old-age pensions is expected to reach EUR 165.91 in 2012.

The dependency ratio<sup>45</sup> is expected to gradually decrease during the next three years and from 76.0% in 2010 to fall to 74.4% in 2012. This improvement will result from the introduction of more stringent requirements for acquiring the right to pension and from the increase in the number of insured people.

The replacement rate<sup>46</sup> (in the first pillar of the pension system), which is currently 44.2% (2009), is expected to reach 48.3% in 2012 as a result of the fact that the rate of growth in the average pension is higher than the rate of growth in the insurance income.

As at the end of September 2009 close to EUR 812.7 million were accumulated in the Pension System State Guarantee Fund.

45. Number of pensioners to 100 insured individuals.

46. Average pension to average gross insurance income.

### 3.5.3. Education

The trend in recent years for maintaining the amount of public expenditure in education at levels exceeding 4% of GDP continues in 2010. In 2010 the expenditure on education on consolidated basis will remain at the level of 4.2% of GDP. At the same time, because of the lower expected size of GDP, the nominal amount of the funds registers a decrease of about EUR 180 million compared to the level of the expenditure in 2009. The funds for uniform expenditure standards will be at the level of the expenditure actually incurred in 2009. The principles of program financing of secondary education will be kept while reconsidering some of the national programs for financing of secondary education as a result of the pressure of the economic crisis.

The strategic objectives, outlined in the Education, Science and Youth Policies Development Program 2009-2013 – improving quality of education, providing equal access to education and opening the education system, promoting life-long learning, attracting young people in the elaboration of sectoral policies, and transforming Bulgaria into a country of knowledge and innovations, will be implemented with priority during the period 2009–2013.

During the period 2010–2012 the funding for the secondary education sector is envisaged to increase from about 4.2% of GDP to 5%. As a whole, during the programming period no risks are expected for the financing of the expenditure under uniform expenditure standards, since the education sector is set as a main priority in the government policy.

Within the system of education there are still opportunities for streamlining of expenditure. One of the main reserves is along the expected decrease in the number of pupils in school age by about 3.5% per annum – the so called demographic dividend. The savings from this are envisaged to be used for increasing the amounts of the uniform standards, as well as for developing national programs in the field of secondary education.

The stabilising of the system of delegated budgets in the conditions of a financial and economic crisis is a priority in the development of the reform in the field of school education in 2010. The 2010 Law on the State Budget again obliges the municipalities to use formulae for allocating the funds for education to individual schools, kindergartens and auxiliary units. In 2010 the average standard for the upkeep of one student is expected to reach EUR 740.

The principles of program financing of secondary education will be kept while reconsidering some of the national programs for financing of secondary education. The main portion of the funds for programs are granted for optimisation of the school network, transport for pupils and providing full-day education in the secondary schools, enhancing the qualifications of teachers and principals, career development and differentiated pay of teachers, etc. For the purpose of ensuring and guaranteeing the access to the educational system, since 1 January 2008 the state provided financing for purchasing free textbooks and teaching materials in the private schools as well, and the program already covers the textbooks for 5th to 8th grade. For 2010/2011 school year, EUR 22 million are envisaged for financing this program.

Under Operational Program “Human Resources Development” 625 contracts with a total value of EUR 82.4 million have been signed. Under the program additional funds amounting to EUR 20 million are provided for students’ scholarships, EUR 3.74 million - for financing of student practice and training in a real working environment, and about EUR 6.93 million - for supporting PhD students, post-doctoral students, post-graduate students and young scientists.

The economies expected in the sector of education, together with the envisaged average annual increase in expenditure on education and the possibilities for financing under the Structural Funds will ensure the financial stability of the system in the medium term.

In December 2009 the Council of Ministers approved a draft Law on Academic Staff Development that was passed at first reading in Parliament. It will launch a series of reforms in science and higher education management. The main novelty is the proposal to abolish the

Higher Attestation Committee and all its subdivisions and to organize instead ad-hoc committees by concrete majors and themes, at the Ministry of Education.

#### 3.5.4. Healthcare

Healthcare is the other main priority of the government, which has kept the levels of the funds allocated as a percentage (4.2%) of the gross domestic product for the following budgetary year. The nominal amount of public expenditure on healthcare is about EUR 1.38 billion.

In 2010 hospitals will continue to be financed mainly from one source – the National Health Insurance Fund. The commitments of the state, respectively the republican budget, with respect to the financing of some specific activities in medical institutions for hospital care, specified as state mandates, will be kept. An increase by 2.34% of the revenue to the budget of the National Health Insurance Fund is envisaged in 2010.

The problems related to the existing underdeveloped model of financing, the inefficient allocation of resources, the control over their spending and the low quality of services necessitate the carrying out of a reform in the sector, which will ensure the corresponding enhancing of the quality, and call for urgent action. The decreasing of the pressure on the publicly financed system, which will grow additionally over the following years as a result of the negative demographic processes, makes it necessary to undertake structural changes concerning the raising, allocation and use of the public resources.

Changing the system of payment methods to suppliers of healthcare services is an important instrument to optimise expenditures and efficiently use the available resources, and also to improve quality and equal access to healthcare services. A necessary condition to improve the efficiency of the system is to optimise hospital network, with hidden reserves to be reallocated to other more efficient healthcare sub-sectors. This will be achieved through optimising medical structures, concentration and relocation of wards and clinics, as well as functional, organisational and legal transformation of some hospital structures in accordance with the specific characteristics of the region. Moreover, disease prevention shall become mandatory for all levels in the healthcare system and the public sector. National policy for health promotion and disease prevention will be elaborated and consensually adopted, and implemented with ensured adequate material, financial, staff and organisational resources. This necessitates the development of sustainable information systems at national and regional level on health issues and health risk factors in order to plan and adequately assess prevention activities.

The expected structural changes are linked to the elaboration of financial aiming to achieve priorities. The development of an adequate financing model in a dynamic environment is necessary to safeguard the financial stability of the healthcare system in the long term. European Funds resources are envisaged to go to hospitals with the potential to keep their financial stability and to safeguard efficiency in public resources utilization, as well as to answer quality health services criteria. European funding, which can restructure the system, amount to EUR 147 million, of which: EUR 75 million for the state medical institutions, EUR 51 million for the medical institutions in large municipalities, and EUR 24 million for the medical institutions in small municipalities.

The 2010 National Framework Contract, as well as the latest amendments to the Law on Medical Institutions and the Law on Health Insurance<sup>47</sup> envisage the following new moments:

- 24-hour functioning of emergency wards, good equipment and appropriate professionals in hospitals to work with the National Health Insurance Fund.

47. Both in SG N101 of 18.12.2009.

- Introduction of co-payment, covered by the state for socially disadvantaged groups. In that respect, currently work is being done on real price-setting of medical services, expected to be finalized at end February 2010 and discussed with doctors' and dentists' associations. Up-to-date prices and cost efficiency assessment indicators will be elaborated for different healthcare activities.
- Introduction of medical audit to establish whether provided healthcare services are adequate as well as tightened sanctions for identified violations.
- Elaboration of standards for all medical majors and good medical practice rules as a basis to determine treatment costs.
- Elaboration of stage-by-stage measures to restructure hospital bed availability and their practical implementation on the basis of a hospital restructuring plan, high-tech structures and final healing and long healing structure development as well as home care.
- Elaborating a program for reallocation of human resources in the sector, for staff specialization and qualification.
- Strengthening and improving emergency medical services
- Regulation of medical services to be co-paid by patients to reduce informal payments and increase hospital revenues.
- Optimization of National Health Insurance Fund operations with the envisaged participation of patient organizations in its governing body.
- Introduction of hospital quarterly delegated budgets to better manage hospital finances. If during a certain period there is a deficit in the budget of a medical institution, the Fund will not reimburse amounts above the budget constraint for the corresponding quarter. This measure also aims to decrease over-hospitalisation and debt accumulation.

In 2010 the amount of the health insurance contributions will remain unchanged at 8 percent, and the ratio between employer and employee will remain at 60:40. Amendments in healthcare legislation, ensuring better health insurance contributions collection are implemented. In 2010 other amendments are planned to develop the present health insurance model – to strengthen the current model of mandatory health insurance and to include private health funds in the system.

Market-oriented financing models for investment projects in healthcare will be also introduced through establishing a fund for co-financing some hospital investment needs, developing schemes for joint financing of projects by the Ministry of Health, medical institutions, universities and municipalities, utilizing privatisation methods to optimise hospital structures, and to attract external financing.

Options are analyzed from 2011 the system to have three pillars, with the inclusion of a second mandatory pillar to finance the activities and services above the basic package, covered by the National Health Insurance Fund under the first pillar. The current second pillar will become a third voluntary pillar, and existing health insurance companies will be re-licensed. The reduction of informal payments and increasing control in the system are among the reform objectives. For this purpose, a new Law on Health Insurance is currently being elaborated to enter into force from January 1, 2011.

### 3.5.5. Reform of the Public Administration

In 2009 an accelerated reform of the public administration started. The rapidly changing and deteriorating economic environment was the main factor for accelerating the changes and



limiting the expenditure in one of the large items in the state budget – the administration; this process started in 2006.

During the period February 2006 – April 2009 optimisation of the administrative structures by a total of 8818 full-time positions was carried out. The total number of people employed in the administration (ministries, structures reporting to ministers, regional and municipal administration) is currently 86,161 people on full-time positions.

As a result of this seven structures were closed down and the number of people employed was reduced by 3.3%. A reduction of the staff in the public administrations by up to 15% is expected in 2010, since the number of ministers was reduced and the deputy ministers were cut down to two per ministry (following a functional analysis in the administrative units and structures). This is evidence of the strong desire of the new government to tackle the clumsiness of the system and to make it more transparent and working for the people and the business.

In order to implement a real reform in the public administration, the following steps will be undertaken in addition to the effective reduction of the government administration:

- Introduction of mechanisms for assessment of the need for functioning of different institutions and carrying out periodic independent analyses of the existing administrative structures for the purpose of optimising the staff and closing down of unnecessary or duplicated units.
- Development of an active e-government, i.e. introduction of information technologies in the public administration. Information technologies contribute to enhancing the connection between the citizens and the administration, faster provision of services, and better awareness, which will make the work of the civil servants more transparent and minimise the conditions for corruption, and will reduce the costs within government structures.

**Table 6: Reforms in the structure of the public administration**

	2008	2009
Total number of structures in the central administration at the beginning of the year	114	108
Number of structures closed down	9	15
Number of new structures	3	6
Total number of structures in the central administration at the end of the year	108	99
Total number of structures in the territorial administration	440	441

Source: Council of Ministers.

**Table 7: Change in the number of civil servants, as of the year beginning**

	2008	2009	2010 (estimate)
Number of employees in the administration (full-time positions)	89 100	86 161	73 237
Change in the number of people (%)	-3.2%	-3.3%	-15%

Source: Council of Ministers.

The income policy in the public sector will take into account the capacity of the state budget and will aim at a stronger connection between the salaries and labour productivity; the increase in the funds for salaries will depend on the speed with which the Bulgarian economy recovers. In 2010 it is envisaged to maintain the nominal amounts of the salaries in the individual budgetary organisations and activities, reached in 2009. From 1 January, 2010

a decrease in the administrative costs took place. This has encouraged heads of organizations to optimize the administrative structures and to make an internal reallocation of the funds for salaries.

### 3.6. Debt Levels and Developments

At the end of 2009 the level of this indicator remained below 15% (convergence reference value being 60%). In terms of the foreign currency structure of the government debt, at the end of the year an increase of about 4 percentage points is observed in the share of the euro-denominated debt reaching 55%. This increase will prompt internal currency share reallocation, reducing them asymmetrically with the same percentage. With regard to interest rate structure, at the end of 2009 the share of the fixed interest rate debt comes to 76%, falling by about 3% compared to the previous year. The interest payments remain below 1% of GDP. Debt structure as of the end of 2009 shows that the prevailing share in total volume of government debt is in government bonds traded on foreign capital markets (33%), followed by government bonds traded at home (31%) and government loans - 19%. State-guaranteed debt as a percent of GDP is expected to remain within two percent, and even fall.

Our medium-term strategy is based on the following high priority objectives:

- Limiting government debt servicing costs

During the period under review the interest expenditures are expected to increase slightly both in absolute terms and as a percentage of GDP as a result of the expected low economic growth in 2010. The implementation of this priority will be guaranteed on the one hand, by strict monitoring and control of newly-negotiated financing, and, on the other, by increasing the shares of fixed interest debt and of risk-neutral currencies debt – EUR and BGN. With a view of the specific market situation, the trends for financial markets in the country and internationally, and in the context of a functioning currency board arrangement with Bulgarian lev pegged to the euro, the membership of Bulgaria in the EU, etc., a policy to maintain the dominant share of euro and lev-denominated debt. Domestically borrowed financial resources will be denominated in the national currency or the euro. Considering the government policy of a balanced state budget, no new foreign financing in the form of either International Monetary Fund loan or on the Eurobond market would be sought. Interest payments are expected to remain within 1% of GDP during the period.

- Domestic government bond market development

During 2010-2012 the main objectives of government domestic debt policy will aim at maintaining macroeconomic and financial system stability, adequate domestic market liquidity, support to the currency board arrangement regime, and joining ERM II in the context of the future introduction of the euro in Bulgaria. The priorities in its elaboration will take into account investors' interests in line with the policy to promote recovery of the Bulgarian economy.

The volumes of planned issues will be in accordance with the policy to establish a stable and predictable domestic market, taking into account the interests of the state. These instruments are usually issued with fixed rate coupons with a view to market standards and aim at attracting a wider investors' base.

The strategy regarding the domestic debt management during 2010-2012 will take into account the situation on domestic and international financial markets, their dynamics, and government debt status and structure. The government starts with issuing domestic government bonds denominated in euro, based on high euro liquidity in bank system, the foreign investors' interest in domestic euro debt instruments as well as lack of the currency risk when servicing such securities. τ

## 4. SENSITIVITY ANALYSIS AND COMPARISON WITH PREVIOUS UPDATE

The baseline scenario is cautious with regard to the expected world economic recovery. Some major economies have already given first signs of stabilization and overcoming the crisis. This might have a positive impact on economic expectations, which in turn will boost world trade, thus providing for a resurgence in Bulgarian exports.

However, global economic risks still remain significant, which is properly reflected by including two alternative scenarios: the first one being strongly conservative (on which one the Medium-term Fiscal Framework was based) and assuming an economic growth of -2% for 2010; and the second one assuming faster recovery of Bulgarian exports and an overall GDP growth of 1% for 2010. There are already signs pointing to the latter: exports rose by 3.3% in November 2009.

### 4.1. The Pessimistic scenario

The 2010 Government Budget and the Medium-term Fiscal Framework are based on this scenario to ensure the revenue side of the budget against the uncertainties of the global environment. This conservative approach to fiscal policy allows for a higher probability of an upside in the revenues, relative to the possibility of a negative surprise.

**Table 8: Main macroeconomic indicators under the pessimistic scenario and difference to the baseline**

	2010		2011		2012	
	Projection	Difference to baseline, p.p.	Projection	Difference to baseline, p.p.	Projection	Difference to baseline, p.p.
GDP (real growth rates, %)	-2.0%	-2.3	3.8%	0.0	4.8%	0.0
Private consumption (real growth rates, %)	-2.7%	-2.1	3.8%	-0.3	4.1%	0.0
Gross fixed capital formation (GFCF) (real growth rates, %)	-6.3%	-0.7	7.8%	6.0	8.3%	2.1
Export of goods and services (real growth rates, %)	-3.8%	-7.1	3.8%	-1.0	6.3%	0.23
Import of goods and services (real growth rates, %)	-8.0%	-6.1	4.8%	0.8	6.7%	0.1
Inflation (annual average)	2.2%	-0.2	3.0%	-0.2	3.2%	0.0
Current account (% of GDP)	-8.0%	-1.2	-7.6%	-3.5	-7.2%	-3.4
Employment (change, %)	-2.2%	-1.5	0.9%	0.4	1.0%	0.0
Unemployment rate, 15+	11.4%	4.3	10.5%	3.6	9.5%	3.0

Source: Agency for Economic Analysis and Forecasting.

The main difference with the baseline scenario comes from the projected 2010 global economic development (Table 8). In the conservative scenario we assume that in 2010, the global economic crisis will continue worsening the Bulgarian exports dynamics by -3.8% in real terms (against 3.3% growth in the baseline scenario). This will exert additional downward pressure on domestic demand. In this conservative scenario, the contraction in private consumption and fixed capital investment will be by 2.1 and 0.7 p.p. higher. As a result, the 2010 GDP will shrink by 2% in volume.

A second year of economic recession would worsen the labor market. Under such scenario the projection shows accelerated rate of increase in unemployment to a two-digit level.

## 4.2. The Optimistic Scenario

Under the optimistic scenario (Table 9), faster worldwide economic recovery is assumed, that will provide for faster exports volume growth (by 5.4% in 2010) in 2010. This projection is by 2.1 p.p. higher compared to the baseline scenario. Despite such growth rates are not sufficient to compensate for the 2009 drop, the Bulgarian economic developments will be more positive. The Bulgarian exports recovery will increase the confidence of economic agents that will affect domestic demand via two main channels of transmission. First, private consumption will stop its decline turning to a 0.5% real growth in 2010 (which is by 3.3 p.p. higher compared to the baseline scenario). Second, a reconsideration of investment decisions is expected, which would limit the investment volume decline to 5%. Hence, the 2010 GDP growth will be by 0.7 p.p. higher against the baseline, and the employment growth – by 0.2 p.p.

In 2010 the Bulgarian economy is expected to start recovering and to realise a growth of 1% in real terms. Because of the more rapid adjustment of the investments in 2009 their decline is expected to be lower – 5.1%. The relatively more favourable economic development is related to more positive expectations of households and an income growth. This will lead to a lower expected decrease in real consumer expenditure – by 0.5% compared to the baseline scenario. The positive development of export will continue and will register a positive real growth of 5.4%.

In the medium term the trends for recovery of the Bulgarian economy, included in the baseline scenario, will continue. The main driving force of growth is expected to be the export of goods and services, which will additionally close the current account deficit.

**Table 9. Main macroeconomic indicators under the optimistic scenario and difference to the baseline**

	2010		2011		2012	
	Projection	Difference to baseline, p.p.	Projection	Difference to baseline, p.p.	Projection	Difference to baseline, p.p.
GDP (real growth rates, %)	1.0%	0.7	4.5%	0.7	5.5%	0.7
Private consumption (real growth rates, %)	-0.1%	0.5	5.2%	1.1	5.3%	1.2
Gross fixed capital formation (GFCF) (real growth rates, %)	-5.1%	0.6	2.4%	0.6	6.9%	0.6
Export of goods and services (real growth rates, %)	5.4%	2.1	5.7%	0.9	6.9%	0.9
Import of goods and services (real growth rates, %)	-0.3%	1.5	5.9%	1.9	8.9%	2.3
Inflation (annual average)	2.4%	0.0	3.3%	0.1	3.3%	0.1
Current account (% of GDP)	-6.6%	0.1	-4.3%	-0.2	-4.3%	-0.5
Employment (change, %)	-0.5%	0.2	0.7%	0.2	1.2%	0.2
Unemployment rate, 15+	7.0%	-0.1	6.8%	-0.1	6.3%	-0.2

Source: Agency for Economic Analysis and Forecasting.

The expectations about employment and unemployment in the alternative scenario will remain unchanged as a direction during the period discussed, but with a different magnitude. The average number of employed is expected to decrease by 0.5% in 2010.

Because of the lower expected decline in employment in 2010, the level of unemployment will register lower values of 7.0% compared to the baseline scenario.

### 4.3. Fiscal Risks

The main risks in the implementation of the budget in the medium term are related to:

- slowdown of domestic demand and economic growth;
- more unfavourable structure of economic growth in the medium term;
- ageing of the population resulting in a pressure on the pension system;
- poor absorption of EU Funds.

The risks of non-implementation of the revenue side of the budget will remain in 2010, bearing in mind the expectations for a slow recovery of the economy. In quantitative terms, the decline of the real growth of the Bulgarian economy by 1 percentage point would lead to a loss of budget revenues, amounting to 1.1%, or EUR 166.7 million in nominal terms.

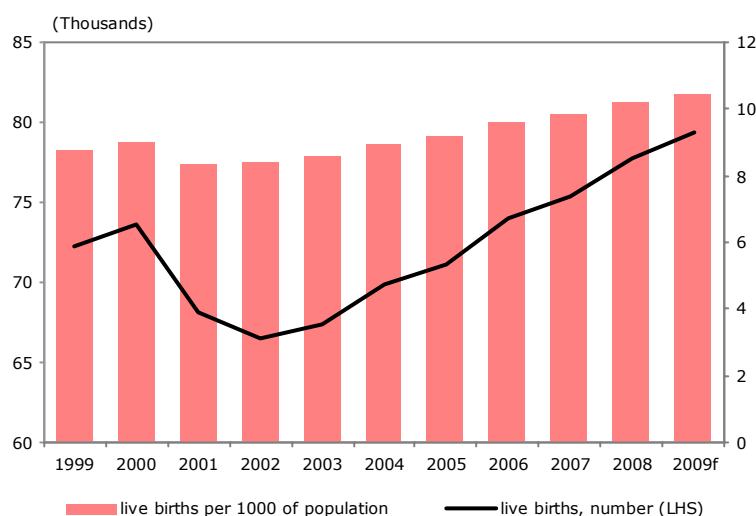
The expectation that economic growth will be driven mainly by export also constitutes a risk before the budget. Over the previous years domestic demand was the main driving force of the economic growth, which is favourable for the budget because of creating a high tax base. On the contrary, an economic growth generated by exports would create conditions for a rate of growth in tax revenues, lower than the rate of growth of GDP, since export is not subject to taxation.

Another risk in the medium term is the balance-of-payments current account deficit. It was the main factor for maintaining a cautious fiscal policy over the recent years and the maintaining of its high level, regardless of the crisis, continues necessitating budgetary discipline.

The process of utilisation of European Union funds also poses a risk before the budget. On the one hand, they contribute to a higher economic growth and indirectly stimulate the growth in budget revenues. On the other hand, however, the projects financed with European funds require national co-financing. The absorption of the European Funds is specified as a priority of the governance and budget policy, i.e. the resources necessary for national co-financing are envisaged in the medium-term fiscal framework.

In the long term a deterioration of the demographic structure of the population is envisaged, which is a significant risk for the fiscal policy. The increased share of elderly people is expected to lead to pressure on budget expenditure on pensions and healthcare. This process is a challenge for maintaining the stability of public finances and makes it necessary to undertake reforms in the pension system, to improve the quality of public expenditure in the system of healthcare and education. These reforms will relieve the burden from the ageing population.

Although the above described risk could not be neglected in the long term, recent trends in demographic developments of Bulgaria suggest that a more positive scenario, with a slower decrease in population, might be realized. This is justified by the higher growth in live births that has been observed in the past seven years. Even in 2009, during the peak of economic crisis in Bulgaria, live births reached their highest value since the beginning of the transition period:

**Fig. 10: Live births dynamics**

Source: Eurostat.

In addition to maintaining the fiscal stance balanced or in surplus and keeping unchanged the current debt levels in medium term, the Bulgarian government implements policies under the National Demographic Strategy<sup>48</sup> aimed at achieving higher fertility rates and overall improvements in the demographic structure of the Bulgarian population:

- A system of financial compensation, subject to constant improvements, is in place. It includes paid maternity leave, single childbirth allowances, and child benefits for certain low income groups of population. In the recent years, an expansion of the paid leave period has been agreed, and a possibility for other family members to benefit it was envisaged (in case the mother wants to go back to work short after giving birth).
- The existing network of public kindergartens is currently being expanded, particularly in larger cities, in order to respond to the growing needs for raising children of pre-school age.
- Measures for improving mothers and child healthcare are also envisaged as part of the ongoing health reform.

#### 4.4. Sensitivity of Budgetary Projections in the Alternative Scenarios

The alternative scenarios reveal some risks related to changes in the structure and the speed of economic recovery. The revenue side of the budget will be affected to a greatest extent by domestic demand and in particular, private consumption. As far as the main difference in the alternative scenarios stems from export dynamics, no significant changes in budget revenues are expected, despite the big differences in 2010 growth. The pessimistic scenario projects budget revenue to be lower by around EUR 200 million compared to the baseline, leading to a 2010 deficit of 0.4% of GDP. The optimistic scenario projects revenue to increase by around EUR 86 million, and the budget would be on surplus of 0.3% of GDP.

Under these conditions the budget will be positive in structural terms for the whole period under all scenarios. The fiscal position will be tight in 2010 as a result of the structural

48 [http://www.mlsp.government.bg/bg/docs/demography/Dem.%20Strategy\\_ENG.pdf](http://www.mlsp.government.bg/bg/docs/demography/Dem.%20Strategy_ENG.pdf).

restrictions to the budget, but will remain neutral to the cycle in 2011 and become counter-cyclical in 2012 (table 10).

**Table 10: Cyclical position and structural balances**

	2010			2011			2012		
	Baseline	Conservative	Optimistic	Baseline	Conservative	Optimistic	Baseline	Conservative	Optimistic
Output gap	-5.3	-7.9	-4.9	-4.5	-2.9	-3.6	-2.8	-2.2	-1.5
Structural balance	1.6	2.1	1.7	1.6	0.6	1.7	1.0	0.4	1.3

Source: Agency for Economic Analysis and Forecasting.

The degree of impact of the possible change in the levels of the current exchange rates and interest rates on the nominal value of the government debt was established with the help of sensitivity analysis. During the period 2010–2012 the change in the EUR/USD ratio by 10% will lead to a fluctuation in the nominal level of the government debt by approximately EUR 150 million. Under this hypothesis the interest payments under the government loans will react with an average deviation of 1.4% for the period, and the impairment charges planned – by 0.2%. A parallel change in the levels of LIB6MEUR and EURIBOR6M by 100 basic points will invoke a change in the scale of 3.5% of the interest costs envisaged. Under the same assumptions about the change in LIB6MUSD, the amount of the budget interest expenditure designated for the period 2010–2012 will remain practically unchanged – a fluctuation of 0.1%. A ten-percent change in the current exchange rate of the Japanese yen (this is the foreign currency with the share in the currency of the debt, following the share of the euro and the US dollar) will have a much lower influence. Under this assumption the debt for the same period will change by about EUR 55 million.

#### 4.5. Comparison with the Previous Update

The revision of the macroeconomic framework and the growth forecasts in the medium term were necessitated by the deteriorating external environment as a result of the financial crisis. In the updated scenario the negative effects are manifested along two channels. Firstly, the global financial crisis led to a recession in the main economies. This had a negative impact on the global trade. As a result the forecast for the Bulgarian export in 2009 is negative in real terms.

In the medium term a change in the structure of GDP is expected and the flows under the financial account are not envisaged to recover to their pre-crisis levels, as a result of which they will not have a leading role in the future economic growth.

The changing of the target levels of the budget balance and the negative revision of the forecasted nominal GDP growth for the planning period results in an adjustment of the forecasts about the level of the government debt as a percentage of GDP. A higher level of the government debt as a percentage of GDP is expected, as the unplanned pre-term repurchase of global bonds at the end of 2008 cannot fully offset the expected lower nominal GDP growth. <sup>τ</sup>

## 5. QUALITY AND SUSTAINABILITY OF PUBLIC FINANCES

The sustainability of the fiscal position is related to the ability of the budget to finance itself while reducing government debt. The results for 2009 are encouraging: Bulgaria finished the year with the lowest budget deficit in the European Union of estimated 1.9% of GDP (on a cash basis, it is around EUR 240 million, or 0.8% of GDP).

Long-term sustainability of the fiscal position is strongly enhanced by the current levels of the budget balance and government debt and by the change envisaged in them as a result of the ageing of the population. The process of ageing bears risks for the public finances since it will put serious pressure towards increasing the budget expenditure on pensions and healthcare.

The government efforts target both the expenditure and revenue sides. They aim at optimizing the expenditure structure and increasing its efficiency, as well as improving the state receivables' collection rate while generally maintaining the existing revenues structure.

Planned government measures to achieve medium-term budgetary and fiscal policy objectives include periodic reviews of the efficiency and expediency of government programs, adopting new legislation to plan and manage public finances, strengthening program and result oriented budgeting, conservative policy new government debt issuance, while maintaining flexibility in case of risks to financial stability.

The process of ageing of the population is a challenge for maintaining the stability of public finances and makes it necessary and urgent to undertake reforms in the pension system, to improve the quality of public expenditure in the system of healthcare and education and to maintain a conservative policy with regard to the budget balance. The reforms, including the increased participation rate and the related decrease in long-term unemployment, will allow cushioning the burden of the ageing population in the future (according to the analyses in Sections 2.4 and 3.5 of the Program), without jeopardising the stability of the public finances.

### 5.1. Expenditure Developments

The priorities in the expenditure side in the 2010 budget are education, healthcare, social sector, environment and road infrastructure.

The efforts of the government are focused on reaching a higher job creation rate in the real economy compared to the lay-offs arising from public sector optimisation. In that respect, the 2010 budget does not envisage increase of public wages, expected to keep their nominal level as of end 2009.

Since the beginning of September 2009, optimisation of ministries and institutions is under way to eliminate duplicating functions and activities, and to maintain services volume and quality. As a result, the administrative costs have decreased. Public administration reform is oriented towards streamlining management, increasing administrative efficiency, and, as a result, ensuring better administration remuneration. The reforms aim to optimise public administration staff and units cuts by at least 15%. In terms of administrative staff optimization, a rate of 11.3% was already achieved by January 1, 2010.

One of the main sections under the consolidated fiscal program is social expenditure. Social sector expenditures have risen in recent years. Social sector expenditure growth is offset by economies in other sectors, excluding these identified by the government as priority sectors.



In 2010 the relative share of public expenditure on education as a percentage of GDP will remain unchanged. Prioritising measures to improve education quality and to provide equal access ensures greater spending efficiency.

In 2010 public expenditure on healthcare (as a percentage of GDP) remains at 2009 levels. To cushion crisis impact on healthcare system, urgent implementation of reforms for restructuring and improving the efficiency of the system is underway. This includes improving the management of the National Health Insurance Fund, implementing economic cost analysis of health services, and optimizing the number of hospitals and hospital units.

Existing serious environmental challenges with considerable financial and economic impact necessitate continuing major role of the state at central and local level in strategic planning and investment financing in the sector by mobilising public investments financed by the European budget.

The government efforts for road infrastructure compliance with European standards are focused at European Funds absorption. In view of limited opportunities for national investments, financed by toll fees (vignettes and other), the implementation of large infrastructure projects can be either at the expense of higher toll fees, or of better EU funds management.

Planned 2010 investment expenditure are primarily directed at environmental and road infrastructure.

## 5.2. Revenue Developments

The Bulgarian government does not intend to raise the rates of direct taxes, and has instead increased some excise duties. Also, it has decreased the social security burden as the best incentive to protect jobs in current recession. Further reductions are planned by 2012.

Continuing the government taxation strategy aims at avoiding sudden changes in income policy in the economic slump. Amendments to tax legislature aim to improve tax practices, to overcome existing difficulties and to improve tax legislation implementation, as well as to eliminate the inconsistency between the tax legislation and the acquis.

The main task is to improve the efficiency of tax collection rates, involving increasing the number of on-the-spot inspections, the work of mobile groups consisting of staff from Customs and the Tax agencies, more frequent and detailed audits as well as more stringent accounting rules and court prosecution.

## 5.3. Long-term Budgetary Prospects

The full fiscal sustainability assessment makes it necessary to take into account current debt, contingent liabilities, government assets, tax burden, estimated level of the average pension and financial results of private pension schemes, development of the sustainability gap, if nothing is undertaken, as well as the possible reinforcing of the social protection in some countries.

The long-term budgetary perspectives included in this section of the current update of the Convergence program of Bulgaria are presented in the 2009 Sustainability Report of the European Commission. It is based on the Eurostat demographic forecasts EUROPOP2008 and the 2009 Ageing Report. The main risks and challenges are identified and recommendations are made by countries. The baseline scenario, approved by Working Group on Ageing Populations before the crisis, is used, which in practice leads to underestimating the risks.

The scenario was developed under the following main assumptions: unchanged policies by the end of the period discussed (2060), the data are extrapolated with 2009 as a starting point, and structural balance is maintained for the whole period; convergence at the level of structural unemployment to the average level for EU 15; convergence of the rate of growth in labour productivity to the average long-term rate for the EU (1.75%); and a fixed real interest rate of 3%.

According to the report, the demographic trends in the Bulgaria are mainly unfavourable, with an expressed decline in population and a decreasing share of the working age population. These changes in the structure of the population are expected to lead to an increase in budget expenditure by a total of 3.2% of GDP by 2060 (Table 11). This growth results from the increase in the expenditure on pensions, healthcare, education and long-term care.

**Table 11: Budgetary effect of ageing (S1 and S2 indicators, expenditure growth, in % of GDP) – baseline scenario (2010 – 2060)**

	S2	S1	Expenditure related to ageing	Pension expenditure	Healthcare expenditure	Long-term care expenditure	Education expenditure and unemployment expenditure
Bulgaria	0.9	-0.6	3.2	2.2	0.6	0.2	0.2
EU 27	6.5	5.4	4.4	2.3	1.4	1.1	-0.2
Euro area	5.8	4.8	4.8	2.7	1.3	1.3	-0.2

Source: European Commission, 2009 Sustainability Report.

According to the EC assessment of the long-term sustainability of the public finances, Bulgaria is assessed as a low-risk member state, where the crisis will lead to a deterioration of the government balances and significant increase in debt, but the structural fiscal positions of which are more stable than those of most member states. Bulgaria is with the third best S2 indicator in the EU (0.9% of GDP) after Denmark and Hungary, and with the second best S1 indicator (-0.6% of GDP) after Denmark. In Bulgaria the growth in expenditure related to the ageing of population is expected to be significantly below the average for the EU during the following decades.

According to analysis made by the Agency for Economic Analysis and Forecasting, the value of the S2 indicator is positive, at 1.03%, which shows that the sustainability of public finances is based solely on the budget surplus policy, and in the long term it is necessary in order to offset the negative influence of the process of ageing. The S2 value consists of a 3.04% effect for the ageing of the population, and a -2.01% effect from the opening budget position in 2008. The potential weakening of the fiscal position, unaccompanied by other measures, will lead in the long term to the accumulation of debt.

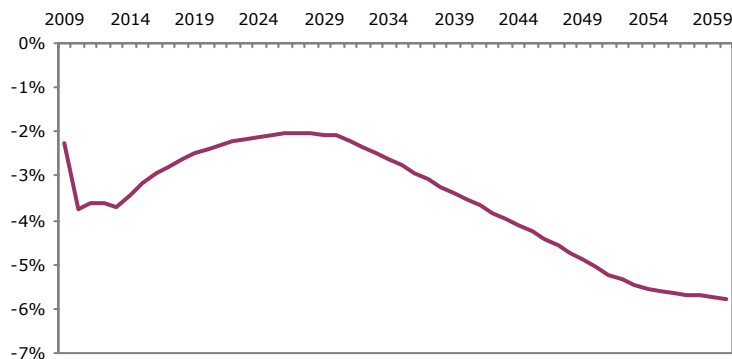
Annex 2 discusses additional scenarios concerning the long-term sustainability of public finances, presented in the European Commission Report.

### 5.3.1. Pension expenditure

The increasing pension expenditure as a result of the ageing of the population is one of the main factors for the deterioration of the S2 indicator.

In addition to the Eurostat demographic forecast EUROPOP 2008 and the macroeconomic forecast prepared by DG ECFIN, assumptions were used related to the Public Social Security, based on the current national legislation. The model for long-term forecasting of the Public Social Security funds, applied in the previous three updates of the Convergence Program, was also used (Fig. 11).

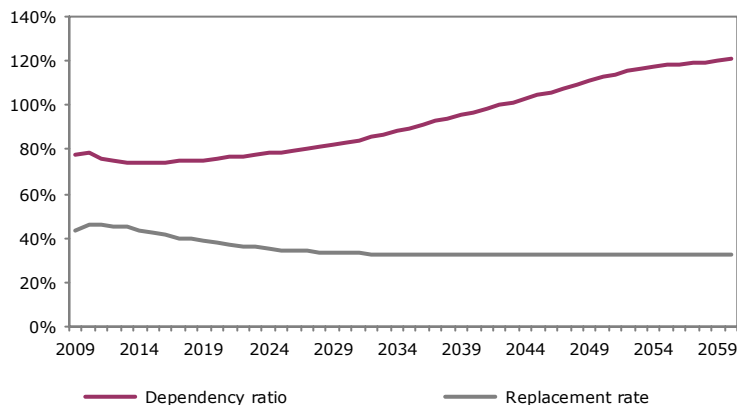
**Fig. 11: Public Social Security Funds Balance, 2009–2060 (% of GDP)**



Source: National Social Security Institute.

The long-term trend for increase in the expenditure on the first pillar of the pension system stems from the combined dynamics of the dependency ratio and the income replacement ratio (Fig. 12). The dependency ratio<sup>49</sup> is envisaged to decrease during 2010-2012 compared to its current level of 76.0% (in 2009) and to reach 74.4% in 2012. This is mainly due to the increased retirement age and the elimination of the possibilities for early retirement for some categories of professions. In the long term the fertility ratios and the increase in the life expectancy are factors for increasing the dependency ratio to 123.8% in 2060.

**Fig. 12: Replacement rate and dependency ratio, 2009 – 2060**



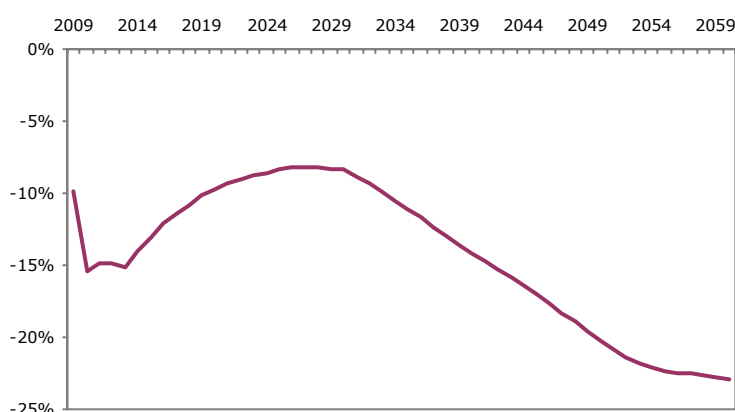
Source: National Social Security Institute.

After 2011 the replacement rate is expected to slowly decrease during the period until 2060 as a result of the faster rate of growth in insurance income compared to the rates of growth of pensions.

The actuarial balance (Fig. 13)<sup>50</sup> is expected to remain negative (-15.95%) in 2010, but to improve gradually by 2027 and after that deteriorate until the end of the period.

49. Number of pensioners to 100 insured individuals.

50. Revenue level as a percentage of the insurance base (all income from labour activities) minus spending on public social security (also as a percentage of the insurance base). The forecasts are derived from the long-term actuarial model, used by the NSSI, which includes projections for the actuarial balances of the public social security funds on a consolidated basis for the period 2008 – 2060.

**Fig. 13. Actuarial balance**

Source: National Social Security Institute.

According to the EC report, in Bulgaria the scenario for longer life expectancy will have the strongest impact on the increase in the pension expenditure (Table 12). In Bulgaria the scenario with the longer employment of elderly employees (possibly because of the accumulation of more pension rights) will also have a negative impact. The scenarios for higher labour productivity and higher total employment are expected to have a positive influence.

**Table 12: Sensitivity tests for pension expenditure**

Pension expenditure							
	Baseline scenario (% of GDP)		Alternative scenarios, difference compared to the baseline scenario				
	Initial level (2007)	Change during the period discussed	Higher life expectancy	Higher labour productivity	Longer employment of elderly employees	Higher total employ- ment	Zero migration
Bulgaria	8.3	+3	+0.3	-0.3	+0.2	-0.3	+0.2
EU 27	10.2	+2.4	+0.3	-0.4	-0.2	-0.1	+1.8
Euro area	11.1	+2.8	+0.3	-0.5	-0.2	-0.1	+1.8

Source: European Commission, 2009 Ageing Report.

### 5.3.2. Education

It is expected that the education expenditure as a percentage of GDP will decrease with a view to the population ageing and the decline in the number of young people. The 2009 Ageing Report takes this into account and discusses its impact on the compensation of the employees in the sector and on other costs, taking into account the direct and indirect transfers for students and their families.

In the field of education the scenario of longer life expectancy (also with a view to the life-long learning) is important for the sensitivity analysis (Table 13) – then the education expenditure would increase by 0.4 percentage points by 2060, which is significant for Bulgaria. However, the methodology does not take into account the trans-border, effects, i.e. the considerable number of Bulgarian students studying abroad, that is why the data about Bulgaria is underestimated.

**Table 13: Sensitivity tests for education expenditure and unemployment benefits**

Education expenditure and unemployment expenditure							
	Baseline scenario (% of GDP)		Alternative scenarios, difference compared to the baseline scenario				
	Initial level (2007)	Change during the period discussed	Higher life expectancy	Higher labour productivity	Longer employment of elderly employees	Higher total employe ment	Zero migration
Bulgaria	3.3	-0.2	+0.4	0	-0.04	0	-0.1
EU 27	5.1	-0.4	+0.5	0	-0.1	-0.2	-0.1
Euro area	5.3	-0.4	+0.5	0	-0.1	-0.3	-0.1

Source: European Commission, 2009 Ageing Report.

In the field of education three more alternative scenarios are discussed (Table 14) – higher compensations for staff, higher teacher/student ratio (slower adjustment to the ageing and the decrease in the number of students, linear growth of 10% over the following 15 years and a constant higher level after that compared to the baseline scenario) and higher number of people with higher education (so called Lisbon scenario, which assumes that 45% of the people aged between 30 and 34 will hold higher education diplomas).

For Bulgaria the scenario with the higher teacher/student ratio would have the greatest importance. We find that the higher staff compensation scenario is the most likely in Bulgaria in view of convergence to EU standards. Of course, the scenario impact could be positively or negatively affected in case a combination of scenarios is considered.

**Table 14: Education expenditure – comparison between the baseline scenario and alternative scenarios**

	Baseline scenario		Alternative scenarios		
	Initial level (2007) in % of GDP	Change in percentage points during the period discussed	higher compensations for staff, difference in percentage points compared to the baseline scenario	higher teacher/student ratio, difference in percentage points compared to the baseline scenario	higher number of high school graduates, difference in percentage points compared to the baseline scenario
Bulgaria	3.2	-0.2	+0.1	+0.3	+0.1
EU 27	4.3	-0.2	+0.1	+0.5	+0.1
Euro area	4.3	-0.2	+0.1	+0.5	+0.1

Source: European Commission, 2009 Ageing Report.

### 5.3.3. Healthcare and Long-term Care

Another main channel for increasing the expenditure related to population ageing is the healthcare expenditure. It depends on factors that are difficult to forecast, such as the health status of the population, the demand for healthcare services and the effect of the technologies.

According to the baseline scenario, half of the years of higher life expectancy will be spent in health, and the other half – in illness, which implies additional costs related to ageing and morbidity. The baseline scenario about the long-term care expenditure assumes unchanged policies, i.e. member states currently providing little long-term care (incl. Bulgaria) will continue to do so in the future. The no-policy-change assumption on long-term care is not

very realistic, having in mind ageing and the respective future increased need for long-term care provision.

For Bulgaria long-term care is not significant from the point of view of the alternative scenarios (Table 15), but the expectation for their growth is realistic. The scenarios for higher life expectancy and zero migration are important in the sensitivity analysis concerning Bulgaria.

**Table 15: Sensitivity tests for healthcare and long-term care expenditure**

Healthcare and long-term care expenditure							
	Baseline scenario		Alternative scenarios, difference compared to the baseline scenario				
	Initial level (2007) in % of GDP	Change in percentage points of GDP during the period discussed	Higher life expectancy	Higher labour productivity	Longer employment of elderly employees	Higher total employment	Zero migration
Bulgaria	4.9	+0.9	+0.3	+0	+0	+0	+0.3
EU 27	8	+2.6	+0.3	+0	+0	+0	+1.4
Euro area	8	+2.8	+0.2	+0	+0	+0	+1.3

Source: European Commission, 2009 Ageing Report.

Annex 2 discusses additional scenarios concerning the development of the healthcare and long-term care expenditure, presented in the European Commission Report. Bulgaria would face particularly adverse consequences if the cost convergence scenario materialises, in view of the more than three times higher S2. The scenario impact could be positively or negatively affected in case a combination of scenarios is considered. <sup>τ</sup>

## 6. INSTITUTIONAL FEATURES OF PUBLIC FINANCES

### 6.1. Implementation of the National Fiscal Rules

The changes in the national fiscal rules adopted by the government in November 2009 are made in response to the economic crisis and aim at providing opportunities for a rapid recovery of the economy, efficient protection and support for the vulnerable social groups, while maintaining the policy for strong fiscal discipline followed during the recent years.

In the 2010 Law on the State Budget the buffer in the expenditure section of the budget, applied during the recent years, or the so called “90% rule”, was not included. The buffer is replaced by giving the Council of Ministers the power to reduce non-interest expenditure and transfers granted under the republican budget below the appropriations in the event of more unfavourable development of the economy than expected.

With a view to increasing efficiency in the allocation and management of public resources, and to creating conditions for better transparency, the regulated procedures for allocation and spending of the funds planned in the annual law, for making corrections and for the preparation of periodic statements, including by policies and programs, as well as for publishing of the information on the internet sites of the corresponding first level spending units, were kept.

In pursuance of its obligations to Eurostat, Bulgaria sends on quarterly basis information about the liabilities of the “General Government” Sector and its sub-sectors “Central Government”, “Social Security Funds” and “Municipalities” (Regulation 1222/2004 of 28 June 2004) and completes twice a year notification tables about the deficit and the debt in accordance with EC Regulation 3605/1993. Our country continues working and making the efforts necessary for achieving an optimum degree of synchronisation of the state financial statistics with the European requirements and standards.

### 6.2. Budget Procedures

Following the provisions of the Organic Law on the State Budget, related to the preparing of the budget forecast, at the end of March 2009 the Council of Ministers adopted a decision about the 2010 budget procedure. It has kept the practice of following rules and procedures at the political and technical level in the course of development of the main documents which finalise each of the three stages of the procedure. These are:

1. Medium-term Fiscal Framework, accompanied by the main economic assumptions, used for its construction;
2. The Three-Year Budgetary Forecast and the cost ceilings by first-level spending units (excluding municipalities), and
3. The 2010 Law on the State Budget.

There were no changes in the budget procedure compared to 2009.

The economic and fiscal objectives of the government, as well as the priorities of the budgetary policy are reflected in the three-year budget forecast and the cost ceilings by first-level spending units for the period 2010 – 2012, and the 2010 Law on the State Budget of the Republic of Bulgaria, adopted by the Council of Ministers. The latter also reflects the economic measures for the recovery of the Bulgarian economy, adopted on 1 October 2009

with a decision of the Council of Ministers and aiming at the achieving of the following results: sustainability of the macroeconomic and financial system, improving the business environment, activating agricultural production, developing a better infrastructure, promoting employment and social assistance, developing a knowledge-based economy, and efficient management of the European funds.

To complete the budget preparation procedure, the government undertook an active dialogue at all levels, including in the National Council for Tripartite Co-operation and other branch organizations.

The adoption of the 2010 Law on the State Budget early in December gave an advantage, that was used for the first time in modern Bulgarian history, namely to prepare and adopt the Council of Ministers Decree on the implementation of the budget before the beginning of the fiscal year 2010.

## 6.3. Reforms in Revenue Administration

### 6.3.1. National Revenue Agency

The revenue administrations undertake specific action for fighting the corruption practices and the improving of the collection rate and the increasing of the budget revenue. The most important actions envisaged in this direction are in the field of improving the interaction and co-ordination of activities among the revenue authorities in the National Revenue Agency, the Customs Agency and the law enforcement authorities.

The interaction between the Customs Agency and National Revenue Agency will continue expanding for the purpose of preparing joint plans for inspections of tax liable persons, target risk profiles by branches for tax liable persons, who produce, keep and use excise goods. A mechanism was also developed for exchange and receiving of information between the National Revenue Agency, the Customs Agency and the Ministry of Economy, Energy and Tourism.

The National Revenue Agency has improved the services provided to the citizens and companies, strengthened the control and the compulsory collection mechanisms as a tool for protecting revenues from violations and fraud by:

- improving the maintenance, integration and unification of the electronic services provided to the National Revenue Agency clients, as well as developing new electronic services;
- developing new and improving the existing methodologies for revisions and inspections in specific areas (by types of taxes, branches, groups of liable persons) and enhancing the quality of the selection made (through an automated annual risk assessment of all liable persons);
- using the information from the VAT information exchange system and other information received through the administrative co-operation with EU Member States for making selections in the course of exercising tax control in connection with intra-community supplies and acquisitions;
- introducing electronic revisions and strengthening the role of current control;
- improving the interaction and co-ordination of activities between the revenue authorities in the National Revenue Agency and the law enforcement authorities – the Interior Ministry and the Prosecutors Office, for the purpose of speeding up the trials against the perpetrators of tax and social security fraud.



A restructuring of the National Revenue Agency was already launched. It consists of the following:

- In 5 of the currently existing territorial directorates the functions of control and collection will be focused. These will be the new Regional Directorates Sofia, Plovdiv, Varna, Burgas and Veliko Turnovo. In addition a “Large Taxpayers and Insurers” Directorate with national coverage will be elaborated. The remaining 23 current territorial directorates will retain the functions of providing services to clients.
- Within the five large territorial directorates special units will be set up for the so called “medium-size taxpayers and insurers” - companies which form a large share of the revenues in the region. Part of the reform constitutes also the updating of the criteria for large taxpayers and insurers. As a result the large and medium-size taxpayers in Bulgaria - about 6 500 companies, will provide about 70% of the revenue administered by the National Revenue Agency.
- At the same time a total of 638 people (8%) of the staff at the tax authority will be laid off in all territorial directorates of the National Revenue Agency, including 90 positions in the Central Division in Sofia.

The well targeted reforms will bring significant benefit to taxpayers, business and state:

- Increase in the collection rate as a result of the stronger control. Updating the criteria for medium-size taxpayers and insurers and large taxpayers and insurers for the purpose of increasing their share in the overall budget revenue.
- Increase in the efficiency of the tax and insurance control, since in the new regional directorates the selection will cover the persons and entities in the whole region, which in turn will lead to selecting only the cases of regional significance.
- Flexibility in the allocation of the resources available among the offices of one regional directorate of the National Revenue Agency, and increase in the functional specialisation of the expert staff both in the general and in the specialised administration.
- For the clients:
  - faster recovery of VAT as a result of the optimised process of selection;
  - the possibility for filling documents and getting services in all currently existing offices of the National Revenue Agency is kept;
  - services of higher quality for a larger number of large taxpayers and insurers and medium-size taxpayers and insurers;
  - improved implementation of the uniform standards in the control activity, the provision of services to clients and receivables collection.

On January 1, 2010 the State Receivables Collection Agency was merged with the National Revenue Agency, a reform that was twice postponed by the previous government. This allows for further gains in efficiency of state collection.

### 6.3.2. Customs Agency

The main priority of the Bulgarian customs administration is to improve the implementation of the customs legislation for the purpose of better collection of receivables. Another important priority is to improve the contacts with the commercial sector (manufacturers, importers and exporters, including of excise goods) and the exchange of information with it.

With Council of Ministers Decree No. 241 of 7 October 2009<sup>51</sup>, amendments were adopted in the Structural Regulations of the Customs Agency, related to increasing the total number of the Agency staff in connection with the extending of the functions and tasks performed by the customs administration under a fully-fledged membership in the European Union, as well as with the optimisation of the existing activities of the Customs Agency.

The powers of the customs administration were extended; now it takes over the activities of the “Road Tolls and Permits” Department of the National Road Infrastructure Agency related to the exercising of control over the carriers and the observing of the routes by the carriers entering or leaving the country. This reform was done with the goal of diminishing the possibility of transport of illegal goods and persons through Bulgaria.

A functional analysis of the customs offices throughout the country carried out in September 2009 found out that there were some redundant administrative structures with a considerably reduced volume of activity and inadequate ratio between the resources used and the results achieved.

On the basis of the analysis criteria were identified, outlining the framework for the optimisation of the structure and composition of the customs offices throughout the country. Some of these criteria are: revenue collected during the year per official; revenue per BGN 1 of expenditure; number of specific customs documents processed by one official; maintenance costs of the administration.

In connection with the structural reform undertaken in the Customs Agency, with Council of Ministers Decree No. 261 of 5 November 2009 the total number of staff in the Customs Agency was reduced by 104 full-time positions. The objective was to optimise the number of staff in the structural units of the Sofia, Sofia Airport and Svilengrad customs offices.

In connection with the structural reform undertaken in the Customs Agency, with the Law Amending and Supplementing the Law on the Excise Duties and Customs Warehouses<sup>52</sup> amendments were made in the Law on Customs, providing for changes in the structure and organisation of the customs administration and aiming at establishing an efficient, flexible and complying with the European standards administration, which serves the public and economic interest. The five Regional Customs Directorates, which up to then were performing activities in the territories of the country, were closed down. Together with changing the structure of the customs administration, competencies and functions were transferred from one customs house to another.

As a result of the structural reform carried out, the Regional Customs Directorates were closed down and the Customs Agency is structured as one Central Customs Directorate and 10 customs offices – Sofia Airport, Burgas, Varna, Lom, Plovdiv, Svilengrad, Svishtov, Sofia, Ruse and South-western. Nine customs offices are closed down – Sofia, Blagoevgrad, Kjustendil Pernik, Kulata, Kalotina, Dobrich, Vidin, Silistra, and two new customs offices are established – Sofia customs office and South-western customs office. 20 customs offices are closed down and, together with the newly-established ones, the total number of customs offices becomes 36. Six customs points will be also closed down and the total number of customs points after the reform will be 33.

In connection with the expanding of the activities related to strengthening the administrative capacity, by the virtue of the Decree an independent “Human Resources Organisation and Management” Directorate was established. The establishing of the new directorate is in the foundation of taking the whole administrative activity to a new qualitative level. The transforming of the human resources units into a strategic partner in the management of the Customs Agency and the introducing of modern concepts of quality management in the field

51. Promulgated, SG, No. 81 of 13 October 2009, on amending and supplementing the Structural Regulations of the Customs Agency, adopted with Council of Ministers Decree No. 1 of 2001

52. Promulgated, SG, No. 95 of 1 December 2009.

of human resources is a main priority which shall be implemented through the establishing of the new directorate.

A new “Customs Intelligence and Investigation” Directorate in the specialised administration unites the functions of the former “Counteraction of Customs, Currency and Excise Violations” Directorate and “Operational Customs and Excise Control” Directorate. The objective is to achieve better co-ordination and work efficiency. The proposed changes in the specialised administration aim at optimising the activity of the customs administration in the field of counteraction of customs, currency and excise violations through the development of a single specialised directorate in line with the best European practices. In this way the duplication of functions will be avoided and a greater efficiency will be achieved in the exercising of the specialised customs control with a view to implementing the tasks, stemming from the national and the corresponding European legislation, while simultaneously streamlining the utilisation of the administrative capacity.

The structural reform also established a single administrative structure of the IT resources of the customs administration. The need for full centralisation of the staff from the IT units in the Customs Agency is necessitated by the implementation of a paperless environment between the customs administration and the economic agents and the development of automated information systems.

The new Structural Regulations optimises the number of staff in the structural units of the Central Customs Directorate in line with its extended functional competencies in connection with the closing down of the regional customs directorates. The total number of the Customs Agency staff becomes 3 370 full-time positions, which is by 529 full-time positions less than the 2009 staff level. In this way the total reduction within the system of the Customs Agency is by 633 full-time positions and this will help achieve the declared optimisation of staff by more than 17%.

The appointment of the management staff and the customs officials in the customs houses is now mandatorily preceded by an open competition, based on professional qualities.

The effects expected from the restructuring can be summarised as follows:

- Improving the government policy in the field of counteraction to customs, currency and excise violation, illegal traffic of narcotic substances, precursors, weapons and articles and technologies with dual use, and of protection of intellectual property rights through efficient control and enhanced co-operation with the other EU Member States and other national law-enforcement authorities.
- Strengthening the integrity of the customs officials and increasing the efficiency of the fight against corruption.
- Strengthening the administrative capacity and optimising the vertical organisational structure.
- Increasing the rate of collection of public state receivables on import of goods and from excise duties on transactions within the country.
- Enhancing the quality of human resources as a result of the active qualification policy of the Customs Agency and providing them with adequate physical, technical and financial resources.
- Realising economies by decreasing the number of staff by 633 full-time positions (17%).
- Increasing the operational staff at the expense of the management staff (especially at the level of middle management – heads of departments), which reduces red tape, optimises the vertical structure and accelerates the flow of information in both directions along the vertical structure.

## 6.4. Fiscal Decentralisation

The trend to higher financial autonomy is expected to continue with the 2011 State Budget. This trend is in connection to the full powers granted to municipalities with regard to the administration of local taxes and the powers to set by their own discretion the amounts of local taxes under the conditions, procedure and within the limits specified in the Local Taxes and Fees Act.

The prioritisation of the local activities, municipalities budget impact on fiscal stance and the effectiveness and efficiency of the spending are at special focus.

All actions, envisaged in the legislation, will be taken for collecting of the receivables overdue and, as a whole, for increasing the rate of collection of revenues.

The funds allocated with the 2010 State Budget support the positive trends in the process of financial decentralisation. In the context of financial decentralisation, the responsibility for the successful absorption of the financial resources, provided by the EU through the Structural Funds and the Cohesion Fund, becomes even greater.

The efforts of local authorities for strengthening the administrative capacity and enhancing the abilities for absorbing the European funds will continue. The capacity for preparation of feasible projects of high quality is essential. Together with the public-private partnership, the participation of municipalities is one of the main instruments for the implementation of a large part of the projects related to regional development, environmental protection and development of rural areas.

\* \* \*

The accumulated funds on the fiscal reserve provide an additional guarantee for the macroeconomic and fiscal stability and the necessary flexibility in case of more negative picture than these described in the scenarios. According to the preliminary 2009 data the fiscal reserve account is close to EUR 4 billion.

\* \* \*

The long-term sustainability of public finances remains the most important objective for Bulgaria. The government takes into account the larger than usual uncertainty that surrounds structural budgetary positions and long-term projections due to the current crisis, which could be seen in the conservative architecture of the 2010 Budget. The government recognizes the ageing population consequences and in this respect the need to take policy action to improve the long-term sustainability. Comprehensive and adequate reforms, notably of pension systems and healthcare, can have a substantial positive impact on long-term sustainability. The structural reforms in support of the potential growth will continue. The progress on each of these pillars is vital for appropriately addressing the challenges.  $\sigma$

## ANNEX 1: TABLES

**Table 1a: Macroeconomic prospects**

	ESA code	2008	2008	2009	2010	2011	2012
		Level53	Rate of change	Rate of change	Rate of change	Rate of change	Rate of change
1. Real GDP <sup>54</sup>	B1*g	34 118	6.01%	-4.90%	0.30%	3.80%	4.80%
2. Nominal GDP	B1*g	34 118	18.06%	-0.31%	2.32%	6.84%	7.31%
<b>Components of real GDP</b>							
3. Private consumption expenditure	P.3	23 256	4.83%	-5.43%	-0.65%	4.11%	4.10%
4. Government consumption expenditure	P.3	5 552	0.04%	-4.07%	-7.37%	1.10%	6.25%
5. Gross fixed capital formation	P.51	11 378	20.38%	-25.03%	-5.63%	1.78%	6.20%
6. Changes in inventories and net acquisition of valuables (% of GDP)	P.52+P.53	5.0	-2.0	-4.6	0.6	0.3	0.3
7. Exports of goods and services	P.6	20 631	2.90%	-10.82%	3.27%	4.86%	6.07%
8. Imports of goods and services	P.7	28 403	4.89%	-22.78%	-1.85%	4.04%	6.58%
<b>Contributions to real GDP growth<sup>55</sup></b>							
9. Final domestic demand		-	9.42%	-12.71%	-3.03%	3.25%	5.00%

53. In EUR million

54. At 2008 prices.

55. In percentage points.

10. Changes in inventories and net acquisition of valuables	P.52+P.53	-	-1.06%	-4.61%	0.60%	0.30%	0.32%
11. External balance of goods and services	B.11	-	-2.34%	12.42%	2.73%	0.25%	-0.52%

**Table 1b: Price developments**

	ESA code	2008	2008	2009	2010	2011	2012
		Level	Rate of change <sup>56</sup>	Change	Change	Change	Change
1. GDP deflator		100	11.36%	4.82%	2.01%	2.93%	2.40%
2. Private consumption deflator		100	11.02%	1.50%	1.66%	2.19%	2.20%
3. Harmonized Index of Consumer Prices <sup>57</sup>		100	11.95%	2.50%	2.40%	2.82%	2.80%
4. Public consumption deflator		100	18.91%	2.77%	2.95%	3.54%	3.55%
5. Investment deflator		100	8.29%	0.90%	2.49%	1.48%	1.36%
6. Export price deflator (goods and services)		100	9.44%	-6.45%	5.38%	4.00%	2.06%
7. Import price deflator (goods and services)		100	9.62%	-10.02%	5.16%	2.65%	1.73%

56. In percentage points compared to the previous year.

57. Annual average.

**Table 1c: Labour market developments<sup>58</sup>**

	ESA code	2008	2008	2009	2010	2011	2012
		Level	Change	Change	Change	Change	Change
1. Employment (thousands of persons) <sup>59</sup>		3 835.6	3.3%	-3.0%	-0.7%	0.5%	1.0%
2. Employment (millions of hours worked) <sup>60</sup>		6 371.8	3.2%	-3.2%	-0.6%	0.6%	1.0%
3. Unemployment rate <sup>61</sup>		5.6%	-1.3 <sup>62</sup>	1.2	0.3	-0.2	-0.4
4. Labour productivity, persons <sup>63</sup>		8 895.0	2.7%	-2.0%	1.0%	3.3%	3.8%
5. Labour productivity, hours worked <sup>64</sup>		5.4	2.7%	-1.8%	0.9%	3.1%	3.8%
6. Compensation of employees (thousands of euros)	D.1	12 340 349	23.6%	4.2%	2.4%	6.9%	7.1%
7. Compensation per employee		4 364.5	19.3%	8.5%	3.5%	6.3%	6.1%

58. The rates of change in items 4 and 5 are in real terms, and those in items 6 – in nominal terms.

59. Occupied population, domestic concept, national accounts definition.

60. National accounts definition.

61. Harmonised definition, Eurostat; levels.

62. The rate of change for the unemployment rate is in percentage points.

63. Real GDP per person employed.

64. Real GDP per hour worked.



**Table 1d: Sectoral Balances**

% of GDP	ESA code	2008	2009	2010	2011	2012
1. Net lending/borrowing vis-à-vis the rest of the world	B.9	-24.6	-8.2	-4.1	-1.2	-0.5
of which:						
- Balance on goods and services		-22.9	-8.3	-5.6	-4.5	-4.6
- Balance of primary incomes and transfers		-2.4	-1.6	-1.1	0.3	0.8
- Capital account		0.8	1.7	2.7	3.0	3.3
2. Net lending / borrowing of the private sector <sup>65</sup>	B.9	-26.4	-6.2	-4.1	-1.3	-0.6
3. Net lending / borrowing of general government	EDP B.9	1.8	-1.9	0.0	0.1	0.1
4. Statistical discrepancy						

65. Due to the unavailability of official statistical information for 2006 the values of the indicator are obtained as residual, using rows 1 and 3 from the table.

**Table 2: General government budgetary prospects**

	ESA code	2008	2008	2009	2010	2011	2012
		Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
<b>Net lending (EDP B.9) by sub-sector</b>							
1. General government	S.13	625.6	1.8	-1.9	0.0	0.1	0.1
2. Central government	S.1311	677.3	2.0	-2.1	-0.9	-0.6	-0.2
3. State government	S.1312	-	-	-	-	-	-
4. Local government	S.1313	-131.7	-0.4	-0.5	0.7	0.6	0.3
5. Social security funds	S.1314	80.1	0.2	0.7	0.2	0.1	0.1
<b>General government (S13)</b>							
6. Total revenue	TR	13 354.5	39.1	37.5	39.2	39.6	39.1
7. Total expenditure	TE <sup>66</sup>	12 728.9	37.3	39.4	39.2	39.5	39.0
8. Net lending / borrowing	EDP B.9	625.6	1.8	-1.9	0.0	0.1	0.1
9. Interest expenditure (including FISIM)	EDP D.41 incl. FISIM	286.1	0.8	0.8	0.9	0.9	0.9
10. Primary balance <sup>67</sup>		911.7	2.7	-1.3	0.9	1.0	1.1
<b>Selected components of revenue</b>							
11. Indirect taxes	D.2	6 190.5	18.1	16.0	17.4	17.3	17.1

66. Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

67. The primary balance is calculated as (EDP B.9, item 8) minus (EDP D.41, incl. FISIM, item 9), differences owe to rounding error.

	ESA code	2008	2008	2009	2010	2011	2012
		Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
12. Direct taxes	D.5	2 202.3	6.5	6.3	6.0	5.9	6.2
13. Capital taxes	D.91	185.8	0.5	0.3	0.3	0.3	0.3
14. Social contributions	D.61	2 757.2	8.1	8.0	7.7	7.4	7.2
15. Property income	D.4	472.0	1.4	1.3	1.1	0.7	0.7
16. Other (16=17-(11+12+13+14+15))		1 546.8	4.5	5.6	6.7	8.0	7.6
17=6. Total revenue	TR	13 354.5	39.1	37.5	39.2	39.6	39.1
p.m.: Tax burden (D.2+D.5+D.61+D.91-D.995) <sup>68</sup>		11 229.9	32.9	30.2	30.9	30.5	30.5
<b>Selected components of expenditure</b>							
18. Collective consumption	P.32	2 966.6	8.7	8.6	8.6	8.6	8.7
19. Social transfers in kind	P.31 = D.63	2 585.2	7.6	7.7	7.0	7.0	7.1
20. Social transfers other than in kind	D.62	3 584.0	10.5	12.5	13.3	12.6	12.3
21=9. Interest expenditure (including FISIM)	EDP D.41 incl. FISIM	286.1	0.8	0.8	0.9	0.9	0.9
22. Subsidies	D.3	247.0	0.7	0.7	1.2	1.4	1.3
23. Gross fixed capital formation	P.51	1 936.4	5.7	5.1	5.1	5.1	5.3
24. Other (24=25-(18+19+20+21+22+23))		1 123.6	3.3	4.0	3.2	3.8	3.4

68. Including those collected by the EU and including an adjustment for uncollected taxes and social contributions (D.995), if appropriate.

	ESA code	2008	2008	2009	2010	2011	2012
		Level	% of GDP	% of GDP	% of GDP	% of GDP	% of GDP
26=7. Total expenditure	TE <sup>69</sup>	12 728.9	37.3	39.4	39.2	39.5	39.0
pm: Compensation of employees		3 061.8	9.0	9.5	8.8	9.0	8.9

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69. Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

**Table 3: General government expenditure by function**

% of GDP	COFOG code	2007	2012
1. General public services	1	8.2	5.4
2. Defence	2	1.6	1.3
3. Public order and safety	3	3.1	2.3
4. Economic affairs	4	5.0	5.5
5. Environmental protection	5	1.4	1.6
6. Housing and community amenities	6	1.4	1.2
7. Health	7	3.1	3.5
8. Recreation, culture and religion	8	0.8	0.8
9. Education	9	3.9	3.9
10. Social protection	10	13.1	13.5
11. Total expenditure (= item 7 = 26 in Table 2)	TE <sup>70</sup>	<b>41.5</b>	<b>39.0</b>

70. Adjusted for the net flow of swap-related flows, so that TR-TE=EDP B.9.

**Table 4: General government debt developments**

% of GDP	2008	2009	2010	2011	2012
1. Gross debt <sup>71</sup>	14.1	14.7	14.6	14.5	14.4
2. Change in gross debt ratio	-4.1	0.6	-0.1	-0.1	-0.1
Contributions to change in gross debt ratio <sup>72</sup>					
3. Primary balance <sup>73</sup>	2.7	-1.3	0.9	1.0	1.1
4. “Snow-ball” effect	-1.9	0.9	0.5	-0.1	-0.2
5. Stock–flow adjustment	0.5	-1.6	0.3	1.0	1.2
of which:					
Differences between cash and accruals	-2.1	-3.0	1.0	2.4	2.7
Net accumulation of financial assets	2.3	1.8	-0.7	-1.4	-1.5
of which: privatisation proceeds	0.8	0.1	0.3	0.7	0.5
Valuation effects and other	0.3	-0.3	0.0	0.1	0.0
p.m. Implicit interest rate on debt <sup>74</sup>	5.4	5.5	6.0	6.0	6.0
Other relevant variables					

71. As defined in Regulation 3605/93 (not an ESA concept).

72. The change in the gross debt to GDP ratio can be decomposed as follows:  $\frac{D_t}{Y_t} - \frac{D_{t-1}}{Y_{t-1}} = \frac{PD_t}{Y_t} + \left( \frac{D_{t-1}}{Y_{t-1}} * \frac{i_t - y_t}{1 + y_t} \right) + \frac{SF_t}{Y_t}$ , where t is a time indicator; D, PD, Y and SF are the stock of government debt, the primary balance, the nominal GDP and the adjustment for stocks - flows, and i and y are the average cost of debt and the nominal GDP growth. The expression in the brackets is the so called “snow-ball” effect.

73. See item 10 of Table 2.

74. Calculated approximately as interest expenditure divided by the debt level of the previous year.

% of GDP	2008	2009	2010	2011	2012
6. Liquid financial assets <sup>75</sup>	-	-	-	-	-
7. Net debt (7=1-6)	-	-	-	-	-

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75. AF1, AF2, AF3 (consolidated at market value), AF5 (if quoted in stock exchange; including mutual fund shares).

**Table 5: Cyclical development**

% of GDP	ESA code	2008	2009	2010	2011	2012
1. GDP growth (%)		6.0	-4.9	0.3	3.8	4.8
2. Net lending of general government	EDP B.9	1.8	-1.9	0.0	0.1	0.1
3. Interest expenditure (including FISIM, reported as consumption)	EDP D.41+FISIM	0.8	0.8	0.9	0.9	0.9
4. Potential GDP growth (%)		5.4	3.4	3.1	2.9	3.0
Contributions:						
labour		1.2	0.8	0.8	0.6	0.4
capital		3.1	1.6	1.3	1.2	1.3
total factor productivity		1.2	1.1	1.1	1.1	1.3
5. Output gap		5.8	-2.7	-5.3	-4.5	-2.8
6. Cyclical budgetary component		2.1	-0.9	-1.6	-1.5	-0.9
7. Cyclically-adjusted balance (2-6)		-0.2	-1.0	1.6	1.6	1.0
8. Cyclically-adjusted primary balance (7+3)		0.6	-0.2	2.5	2.5	1.9



**Table 6: Divergence from previous update**

	ESA code	2008	2009	2010	2011	2012
Real GDP growth (%)						
Previous update		6.5	4.7	5.2	5.8	-
Current update		6.0	-4.9	0.3	3.8	4.8
Difference		-0.5	-9.6	-4.9	-2.0	-
General government net lending (% of GDP)	EDP B.9					
Previous update		3.0	3.0	3.0	3.0	-
Current update		1.8	-1.9	0.0	0.1	0.1
Difference		-1.2	-4.9	-3.0	-2.9	-
General government gross debt (% of GDP)						
Previous update		15.4	15.4	15.3	15.2	-
Current update		14.1	14.7	14.6	14.5	14.4
Difference		-1.3	-0.7	-0.7	-0.7	-

**Table 7: Long-term sustainability of public finances**

% of GDP	2000	2007*	2010*	2020*	2030*	2050*	2060*
Total expenditure	42.6	41.5	42	41.4	41.8	44.6	45.2
Of which: age-related expenditure	18.3	16.2	16.7	16.1	16.6	19.3	19.9
Pension expenditure	9.4	8.3	9.1	8.4	8.6	10.8	11.3
Social security pensions	-	-	-	-	-	-	-
Old-age and early pensions	8.3	6.8	7.3	6.9	7.1	9.4	10
Other pensions (disability, survivors)	1.1	1.4	1.8	1.5	1.5	1.4	1.3
Occupational pensions (if included in the consolidated government)	-	-	-	-	-	-	-
Healthcare	3.3	4.7	4.8	5	5.1	5.5	5.4
Long-term care	-	0.2	0.2	0.2	0.2	0.3	0.4
Education expenditure	4.2	3.3	2.9	2.8	2.9	2.9	3
Other age-related expenditure	0.7	0.1	0.1	0.1	0.1	0.1	0.1
Interest expenditure	4	1	0.9	1.1	1.1	1.3	1.5
Total revenue	42.2	41.5	41.2	41.2	41.2	41.2	41.2
Including property income	3.6	1.5	1.4	1.3	1.3	1.2	1.2
of which: from pension contributions (or social security contributions, if relevant)	7.4	5	7.6	7.4	7.3	7.4	7.4
Pension reserve fund assets	-	-	-	-	-	-	-
Including: consolidated public pension fund assets (excluding government bonds)	-	-	-	-	-	-	-
<b>Assumptions:</b>							

<b>% of GDP</b>	<b>2000</b>	<b>2007*</b>	<b>2010*</b>	<b>2020*</b>	<b>2030*</b>	<b>2050*</b>	<b>2060*</b>
Labour productivity growth	9.2	4	4	3.3	2.7	1.7	1.7
Real GDP growth	5.4	5.9	4	2.4	1.7	0.3	0.8
Participation rate, males (aged 15 – 64)	73.4	71.4	72.3	74.3	72.9	71.8	72.9
Participation rate, females (aged 15 – 64)	61	62.3	63.4	66.3	65.1	63.8	65.6
Participation rate, total (aged 15 – 64)	67.1	66.8	67.8	70.3	69	67.9	69.3
Unemployment rate (% , aged 15 – 64)	16.9	7	4.7	4.7	4.7	4.7	4.7
Population aged 65+ over total population	16.5	17.3	17.5	20.3	23.3	31.3	34.2

\* Source: 2009 Ageing Report and 2009 Sustainability Report

**Table 8: Main assumptions**

	2008	2009	2010	2011	2012
Short-term interest rate (annual average), 3-month EUR LIBOR, %	4.6	1.2	2.0	2.8	3.5
Short-term interest rate (annual average), 6-month USD LIBOR, %	3.1	1.0	1.7	2.5	3.0
Long-term interest rate (annual average), %	4.1	4	4.1	4.1	4.1
USD/EUR exchange rate (annual average)	1.46	1.40	1.45	1.45	1.45
Nominal effective exchange rate, percentage change, previous year=100 <sup>76</sup>	2.7	-3.0	0.0	1.5	0.0
Exchange rate vis-à-vis the EUR (annual average)	1.95583	1.95583	1.95583	1.95583	1.95583
World excluding EU, GDP growth, %	3.6	-1.2	3.1	3.5	4.0
EU-27 GDP growth, %	0.8	-4.1	0.7	1.6	2.0
Growth of relevant foreign markets, %	5.2	1.4	3.4	4.1	4.4
World import volume, excluding EU, %	6.4	0.5	2.1	4.0	3.1
Oil price (Brent, USD/barrel)	97.0	62.1	67.5	77.0	84.0

76. Positive numbers denote appreciation, and negative numbers – depreciation.

## ANNEX 2: ALTERNATIVE SCENARIOS FROM THE 2009 SUSTAINABILITY REPORT

The EC assessment in the 2009 Sustainability Report is based in the long-term forecasts of government expenditure, revenue and deficit, taking into account the demographic factors and the debt accumulation. To measure in quantitative terms the risks to sustainability, the term sustainability gap<sup>77</sup> is used, measured with the help of the S2 and S1 indicators. S2 shows the adjustment to the current primary balance required to fulfil the infinite horizon budget constraint (the discounted value of the future structural primary balances shall cover the level of the debt at the present moment), including the expenditure related to the ageing population and the development of the government property income and the development of pension taxation modelled according to the tax elasticity (the latter two are new to the methodology). The S1 indicator shows the adjustment to the current primary balance required to reach a target government gross debt of 60% of GDP in 2060, also covering any additional expenditure arising from an ageing population and including the government property income. A positive value of the indicators means a need for fiscal consolidation or structural reforms, which would reduce the burden of the ageing on public finances. On the contrary, a negative value means that the starting budget position is sufficiently strong to ensure sustainability of fiscal policy, even with the risk of ageing.

The Report also reviews the option of postponing the reforms by 5 years, i.e. by how much the S2 and S1 indicators will increase in such case. For EU S2 will increase by an average of 0.5 percentage points of GDP, and for Bulgaria – by 0.1 percentage point.

The EC has developed three alternative scenarios reflecting different assumptions on the extent to which the economic crisis will affect the economic development in medium- and long term.

Under the optimistic scenario called “rebound” a slowdown in the potential growth during the crisis is assumed, which is followed by a faster recovery compared to the other alternative scenarios, which implies that results in the longer term (b 2060) will not deviate from the baseline scenario (where no crisis effects were considered).

The second scenario is called “lost decade” and is regarded as the most realistic one. It assumes a recovery of the potential growth to its level before the crisis in ten years, while the labour productivity and the hours worked are expected to reach the baseline scenario growth rate in 2020.

The most pessimistic scenario is called “permanent shock” and according to it there will be no recovery and there will be permanent decline in the potential growth in the future.

According to the EC calculations Bulgaria is an outlier – a decrease in the age-related expenditure and improvement of the S2 indicator is observed to respectively 2.7% and to 0.3% of GDP and in the “lost decade” scenario. This is due to the “illogicality” of the elasticities used in the calculations.

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77. The positive deviation from sustainability is unfavourable and suggests the need for reforms; the negative deviation is favourable and shows a prudent fiscal policy and no problems with meeting the debt requirements, including the age-related expenditure.

**Table 1: Effect of the crisis on S2 and age-related expenditure**

	S2 (% of GDP)	Expenditure related to ageing, growth in % of GDP during the period 2010 - 2060	S2 (% of GDP), difference from the baseline scenario	Expenditure related to ageing, growth in % of GDP during the period 2007 - 2060, difference from the baseline scenario	S2 (% of GDP), difference from the baseline scenario	Expenditure related to ageing, growth in % of GDP during the period 2007 - 2060, difference from the baseline scenario	S2 (% of GDP), difference from the baseline scenario	Expenditure related to ageing, growth in % of GDP during the period 2007 - 2060, difference from the baseline scenario
	Baseline scenario		Rebound		Lost decade		Permanent shock	
<b>Bulgaria</b>	<b>0.9</b>	<b>3.2</b>	<b>0</b>	<b>0</b>	<b>-0.6</b>	<b>-0.5</b>	<b>-0.6</b>	<b>-0.3</b>
EU 27	6.5	4.4	0	0	1.1	+1.4	1.5	+2
Euro area	5.8	4.8	0	0	1.2	+1.6	1.8	+2.4

Source: European Commission, 2009 Sustainability Report

The EC has included another scenario which assumes that the medium-term budgetary objectives included in the 2008-2009 Stability and Convergence Programs (SPCP) will be achieved during the period 2010 – 2015. The hypothetical realisation of this scenario suggests a big decrease in the positive S2 indicator in the EU and the euro area. Bulgaria would be with the best S2 indicator in the EU (-6.9% of GDP). Taking into consideration the impact of the crisis on public finances however, this scenario is highly unlikely.

The sensitivity tests include the changes in the S2 indicator with different from baseline life-expectancy (longer by one year at birth until 2060), labour productivity (convergence to a 0.25 p.p. higher growth rate, introduced linearly for the period 2010 – 2020 and remaining unchanged thereafter), participation rate of elderly workers (higher by 5 percentage points, introduced linearly for the period 2010 – 2020 and remaining unchanged due to decrease in the inactive population), total employment (higher by 1 percentage point, introduced linearly for the period 2010 – 2020 and remaining unchanged due to decrease in the structural unemployment), migration (zero migration) and interest rate (higher real interest by 1 percentage point, i.e. 4%).

**Table 2: Sensitivity tests for the S2 indicator**

	S2, baseline scenario, % of GDP	S2, higher life expectancy, difference in percentage points compared to the baseline scenario	S2, higher labour productivity, difference in percentage points compared to the baseline scenario	S2, higher employment for elderly workers, difference in percentage points compared to the baseline scenario	S2, higher total employment, difference in percentage points compared to the baseline scenario	S2, zero migration, difference in percentage points compared to the baseline scenario	S2, higher interest rate, difference in percentage points compared to the baseline scenario
<b>Bulgaria</b>	<b>0.9</b>	<b>+0.3</b>	<b>-0.2</b>	<b>0</b>	<b>-0.2</b>	<b>+0.3</b>	<b>-0.3</b>
EU 27	6.5	+0.5	-0.3	-0.2	-0.3	+2.2	:
Euro area	5.8	+0.4	-0.4	-0.3	-0.3	+2.3	:

Source: European Commission, 2009 Sustainability Report

According to the results, the zero migration scenario has the greatest negative influence for Bulgaria – it results in deterioration of the indicator by one-third or more. The expected influence of the scenarios with higher productivity and total employment is positive, and for Bulgaria the growth is considerable – over 20%. The higher life expectancy also is expected to increase the indicator – by one-third for Bulgaria.

The alternative scenarios on healthcare expenditure are:

- “pure ageing” – morbidity rates related to ageing do not improve (pessimistic).
- “constant health” – all additional years are spent in health (optimistic).
- “death-related costs” – the expenditure is concentrated in final years of life according to EUROPOP 2008 data.
- “income elasticity” – as opposed to the baseline scenario with constant elasticity of demand for healthcare services of 1, it includes elasticity of demand for healthcare services of 1.1, which will converge to 1 by 2060.

The scenarios above analyze effects on healthcare expenditure determined by demand-side factors. There are two more alternative scenarios, analysing effects on healthcare expenditure arising from supply-side factors:

- “EU 12 cost convergence” – expenditures in the new Member States (EU 12) converge to the average EU 15 expenditure by 2060, which will sharply increase the S2 indicator for these countries.
- “labor intensity” – healthcare expenditure grows in line with GDP per person employed (since healthcare is a labour intensive sector) and not in line with GDP per capita.

**Table 3: Alternative scenarios concerning healthcare expenditure**

	S2, baseline scenario, % of GDP	S2, “pure ageing”, difference in percentage points compared to the baseline scenario	S2, “constant health”, difference in percentage points compared to the baseline scenario	S2, “death-related costs”, difference in percentage points compared to the baseline scenario	S2, “income elasticity”, difference in percentage points compared to the baseline scenario	S2, “EU 12 cost convergence”, difference in percentage points compared to the basic scenario	S2, “labour intensity”, difference in percentage points compared to the baseline scenario
<b>Bulgaria</b>	<b>0.9</b>	<b>0</b>	<b>-0.5</b>	<b>0</b>	<b>+0.3</b>	<b>+1.9</b>	<b>+0.6</b>
EU 27	6.5	+0.1	-0.6	-0.1	+0.4	:	+0.7
Euro area	5.8	+0.1	-0.5	0	+0.4	:	+0.6

Source: European Commission, 2009 Sustainability Report

The alternative scenarios related to the long-term care expenditure are:

- “pure ageing” – morbidity rates related to ageing do not improve (pessimistic).
- “constant disability” – disability rate remains unchanged regardless of the increase in the number of elderly people (analogous to the “constant health” optimistic scenario on healthcare expenditure).
- “shift to home care” – a 1% annual shift of disabled elderly people from informal care to formal home care during the first ten years of the period discussed.
- “shift to institutional care” – a 1% annual shift of disabled elderly people from informal care to institutional care during the first ten years of the period under consideration.

The first two scenarios above analyse effects on long-term care expenditure arising demand-side factors, and the remaining two – from the point of view of changes in the provision of public long-term care. There are two more alternative scenarios, analysing effects on long-term care expenditure arising from supply-side factors: “fast growth in unit costs”, linked to

GDP per person employed; and “slow growth in unit costs”, linked to GDP per person employed.