Council of the
European Union

Brussels, 22 February 2017
(OR. en)

6533/17

ECOFIN 119
UEM 32
SOC 118
EMPL 85
COMPET 117
ENV 161
EDUC 67
RECH 56
ENER 61
JAI 134

COVER NOTE

From:	Secretary-General of the European Commission, signed by Mr Jordi AYET PUIGARNAU, Director
date of receipt:	22 February 2017
To:	Mr Jeppe TRANHOLM-MIKKELSEN, Secretary-General of the Council of the European Union
No. Cion doc.:	SWD(2017) 68 final
Subject:	COMMISSION STAFF WORKING DOCUMENT Country Report Bulgaria 2017 Including an In-Depth Review on the prevention and correction of macroeconomic imbalances Accompanying the document COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN CENTRAL BANK AND THE EUROGROUP 2017 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011 {COM(2017) 90 final} {SWD(2017) 67 final to SWD(2017) 93 final}

Delegations will find attached document SWD(2017) 68 final.

Encl.: SWD(2017) 68 final

EUROPEAN
COMMISSION

Brussels, 22.2.2017
SWD(2017) 68 final

COMMISSION STAFF WORKING DOCUMENT

Country Report Bulgaria 2017
Including an In-Depth Review on the prevention and correction of macroeconomic imbalances

Accompanying the document

COMMUNICATION FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT, THE COUNCIL, THE EUROPEAN CENTRAL BANK AND THE EUROGROUP

2017 European Semester: Assessment of progress on structural reforms, prevention and correction of macroeconomic imbalances, and results of in-depth reviews under Regulation (EU) No 1176/2011

{COM(2017) 90 final}
{SWD(2017) 67 final to SWD(2017) 93 final}

EN EN

CONTENTS

Executive summary 1

1. Economic situation and outlook 4

2. Progress with country-specific recommendations 11

3. Summary of the main findings from the MIP in-depth review 15

4. Reform priorities 20

   4.1. Public finances and taxation 20
   4.2. Financial sector 22
   4.3. Labour market, education, health and social policies 29
   4.4. Investment 36
   4.5. Sectoral policies 43
   4.6. Public administration 45

A. Overview table 47

B. MIP Scoreboard 54

C. Standard Tables 55

References 60

LIST OF TABLES

1.1. Key economic, financial and social indicators 10
2.1. Summary Table on 2016 CSR assessment 13
3.1. MIP Assessment matrix 18
4.1.1. Impact of measures to improve tax collection in 2016 21
B.1. MIP scoreboard indicators 54
C.1. Financial market indicators 55
C.2. Labour market and social indicators 56
C.3. Labour market and social indicators (continued) 57
C.4. Product market performance and policy indicators 58
C.5. Green growth 59

LIST OF GRAPHS

1.1. Real GDP growth by demand components 4
1.2. GDP per capita relative to peers and EU28 4
1.3. HICP, GDP deflator and producer price index (PPI) 5
1.4. Activity, employment and unemployment rates (quarterly, seasonally adjusted) 5
1.5. Population dynamics 6
1.6. GDP per capita in PPS in 2015 vs income quintile ratio (S80/S20) for the EU-countries 6
1.7. Current account developments 7
1.8. Net international investment position 7
1.9. Private sector banking credit flow, 12-month moving sums 8
1.10. Public deficit reduction breakdown, 2016 vs 2015, in bn EUR 9
1.11. SOE liabilities as % of GDP per supervising ministry 9
4.1.1. Tax revenue main components 20
4.1.2. Level of income inequality in EU Member States 21
4.2.1. Post-AQR capital adequacy, % of risk-weighted assets 23
4.2.2. Bank-by-bankCET1 capital adequacy ratios in 2018 according to stress test scenarios 23
4.2.3. Impact of baseline and adverse scenario of stress tests on capital 24
4.2.4. Private debt breakdown 26
4.2.5. Interest coverage, distribution by sector, 2015 28
4.3.1. Employment by sector, year-on-year changes 29
4.3.2. Relative dispersion of employment rates by education level, 2010, 2014 and 2015 30
4.3.3. Increasing distance from the labour market * 30
4.3.4. Long-term unemployment rate by educational attainment 31
4.3.5. At-risk-of-poverty or social exclusion rate and its components (AROP, SMD, LWI) 32
4.3.6. Reduction in the risk of poverty after social transfers (excluding pensions) 33
4.4.1. Decomposition of Unit Labour Costs (ULC) 36
4.4.2. ULC-based REER in Bulgaria and EU 36
4.4.3. Bulgaria's Export Market Shares (EMS) 37

4.4.4.	Dynamism and Competitiveness of Exports (goods) on top-10 country destinations	37
4.4.5.	Public and private investment	37
4.4.6.	Public investment and quality of infrastructure	38
4.4.7.	Worldwide governance indicators	38
4.4.8.	Doing Business 2017, distance to frontier	39
4.4.9.	Global Entrepreneurship Monitor	41
4.5.1.	R&D expenditure (GERD) by sector of performance and source of funds, 2014	43

LIST OF BOXES

2.1.	Contribution of the EU budget to structural change in Bulgaria	14
4.4.1.	Investment challenges and reforms in Bulgaria	40

EXECUTIVE SUMMARY

This report assesses Bulgaria's economy in the light of the European Commission's Annual Growth Survey published on 16 November 2016. In the survey, the Commission calls on EU Member States to redouble their efforts on the three elements of the virtuous triangle of economic policy – boosting investment, pursuing structural reforms and ensuring responsible fiscal policies. In so doing, Member States should put the focus on enhancing social fairness in order to deliver more inclusive growth. At the same time, the Commission published the Alert Mechanism Report (AMR) that initiated the sixth round of the macroeconomic imbalance procedure. The in-depth review, which the 2017 AMR concluded should be undertaken for the Bulgarian economy, is presented in this report.

Economic performance has strengthened. Private consumption was the key driver for GDP growth of 3.6 % in 2015 and expected 3.3 % in 2016. While the export performance was robust in 2016, the contribution of net exports to growth for 2017 is projected to sharply drop due to strong imports brought about by rising domestic demand. Investment, subdued in 2016, is expected to gain momentum in 2017 with the pick-up of EU funds implementation. Income convergence with the EU continues, but the relative position against peers remains unchanged. In the medium term, relatively low potential growth constrains Bulgaria's income convergence. In addition, income inequality has been rising fast and is now at very high levels.

Fiscal consolidation has moved faster than planned. The budget deficit is estimated to have decreased to 0.3 % of GDP in 2016 and to continue on a declining path in 2017 and 2018. The structural deficit is forecast to stay below 0.5 % of GDP throughout the period 2016-2018. Contingent liabilities of state-owned enterprises (SOEs) are the main source of risk to the fiscal outlook. Public debt is projected to decrease again from 2017 onwards after a temporary increase in 2016.

While labour market conditions have improved, challenges remain. The unemployment rate is expected to fall further to 7.1 % in 2017 (from 7.7 % in 2016), well below the EU average, while rapid wage growth does not seem so far to have had a negative impact on competitiveness. Adverse demographic developments and structural problems such as the high long-term unemployment, high inactivity levels, and limited inclusion of young people are key impediments to the functioning of the labour market.

The financial sector shows positive trends despite remaining balance sheet weaknesses. Headline indicators of the banking sector have improved since the market tensions of 2014. Private sector lending is showing signs of a nascent recovery, in particular for households. However, despite the positive trends on aggregate, the asset quality review and stress tests revealed weaknesses in parts of the sector which remain to be addressed.

Overall, Bulgaria has made some ([1]) progress in addressing the 2016 country-specific recommendations. The government has made substantial progress in finalising the balance-sheet review and stress test of the insurance companies and the review of private pension funds' assets. Some progress has been made in improving tax collection and reducing the extent of the informal economy, finalising the asset quality review and stress test of the banks, reinforcing and integrating social assistance and active labour market policies and in improving public procurement. Limited progress has been achieved regarding follow-up actions in the financial sector and improving banking and non-banking supervision, increasing the provision of quality education for disadvantaged groups, improving the efficiency of the health system, in establishing guidelines and criteria for setting the minimum wage, increasing the coverage and adequacy of the minimum income scheme and reforming the insolvency framework.

Regarding the progress in reaching the national targets under the Europe 2020 strategy, Bulgaria appears to be already well ahead in reaching its targets for reducing greenhouse gas emissions and increasing the share of renewable energy. Measures have been taken to improve energy efficiency but energy consumption has further deviated from the indicative national target. Bulgaria has made progress on the employment rate and tertiary education but the Europe 2020

([1]) Information on the level of progress and actions taken to address the policy advice in each respective subpart of a CSR is presented in the Overview Table in the Annex.

targets are still to be met. However, the situation has deteriorated regarding the targets on early school leaving and poverty reduction.

The main findings of the in-depth review contained in this report and the related policy challenges are as follows:

While the robustness of the banking sector has increased on aggregate, some pockets of vulnerabilities pose risks to the system as a whole. Capital adequacy, risk coverage and liquidity have improved and the asset quality review and stress tests showed robust results on aggregate. Nevertheless, some institutions warrant close attention, including one systemic bank. Tackling hard-to-value assets and unsound business practices, including related-party and connected lending, remain key challenges for the authorities.

Some vulnerabilities were also confirmed in the insurance and pension fund sectors and their supervision. The independent reviews in the two sectors show they are overall stable. Nevertheless, weaknesses in certain insurance undertakings and groups were found. Accordingly, a first round of follow-up actions was requested by the supervisor. Further risks identified in the reviews, including related-party investments, cross-ownership and certain reinsurance contracts, remain key challenges for the authorities. In addition, the review did not fully assess the group-level strength of certain insurance undertakings, causing further uncertainties to be tackled by the supervisor.

Despite the ongoing deleveraging, high private debt, the majority comprising loans to non-financial corporates, continues to be a concern. Bulgaria's high corporate debt can negatively weigh on medium-term growth prospects. Reducing the high level corporate indebtedness has been constrained by the delayed adoption of the insolvency reforms and the lack of a deep market for sales of corporate non-performing loans.

Remaining weaknesses in the labour market continue to hinder growth. While labour market indicators are improving, there is unused employment potential with a high rate of inactivity, long-term unemployment and young people not in employment, education or training. Active labour market policies for these groups are insufficiently targeted. Moreover, the persistently high share of undeclared work distorts the labour market and reduces fiscal revenue. The lack of a mechanism for determining the minimum wage raises economic uncertainty. Labour mismatches in skills, sectors and regions as well as the high impact of parenthood on female employment (partly relating to low provision of childcare) represent further challenges. In addition, insufficient provision of quality education, low participation in lifelong learning, and social disparities pose challenges. The number of Centres for Employment and Social Assistance is increasing, but the effective integration of services is still limited.

Other key structural issues analysed in this report, which point to particular challenges for Bulgaria's economy, are the following:

Maintaining and enhancing the efforts to tackle the shadow economy remains a key challenge. Tax collection, especially of indirect taxes, has improved since 2015. However, the shadow economy and undeclared work remain high. In addition, the tax-related administrative burden remains elevated, while measures to improve tax administration are still limited.

The education system does not fully equip students with relevant skills, and access to quality education is unequal. The proportion of under-achievers in reading, mathematics and science, as measured by PISA 2015, remains one of highest in the EU. Although funding for education is gradually increasing, it remains low compared with the rest of the EU. Children from families with lower socio-economic status, particularly Roma families, do not enjoy equal educational opportunities, including in early childhood. This has longer-term implications for their social inclusion and employability. However, a major educational reform has started with the implementation of the Pre-School and School Education Act. Vocational education and training is being reformed but its quality as well as cooperation with business and social partners are insufficient. Performance-based funding in higher education seeks to improve quality and labour market relevance.

Key challenges in the healthcare system include limited accessibility, low funding, professionals

emigrating and weak health outcomes. In particular, public health care spending is low compared to the EU average, though it is a priority in the 2017 budget. The health insurance coverage remains low and access to healthcare is further impeded by out-of-pocket payments. Furthermore, the number of doctors emigrating each year equals almost 90 % of the number of medical graduates. The shortage of nurses compounds the human capital challenge.

The high share of people living at-risk-of-poverty or social exclusion remains a major economic and social challenge. The social protection system, including the general minimum income which does not have a transparent adjusting mechanism, does not provide adequate levels of support. The activation of people on social benefits remains low. The high-risk groups include children, the elderly, the Roma and people in rural areas. The fragmentation of the relevant support agencies continues to prevent an effective co-ordinated response to this challenge.

Reforms of the insolvency framework are lagging behind. Legislative changes aimed at improving the insolvency framework have only recently been adopted. Implementation challenges, including the qualification and training of judges and the capacity of courts remain to be addressed.

Despite some improvements, challenges in the business environment continue to weigh on investment. The perception of corruption, weak institutions and an unstable legal framework remains a cause of concern in this regard. The low trust in the judicial system and public institutions hinders private investment. To further improve the business environment, correctly implementing the newly-introduced impact assessment and the action plan for removing obstacles to investment remain key. The Small Business Act reforms are falling behind. Access to finance for small and medium-sized enterprises remains inadequate but is expected to improve with new financial instruments.

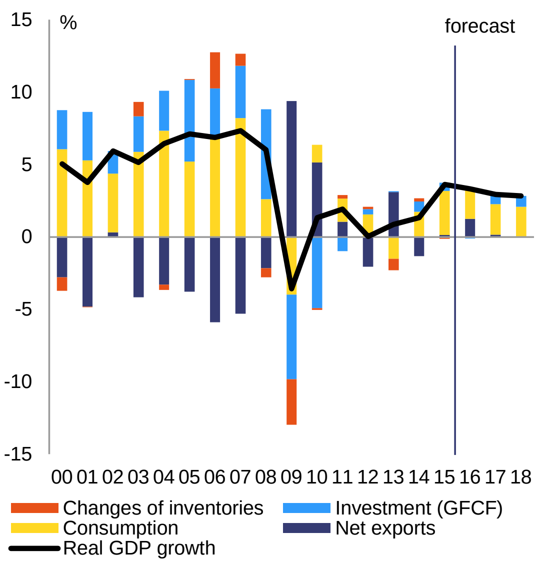
The slow administrative reforms and weaknesses in public procurement continue to affect the efficiency of the public sector. Legislative and institutional changes are a step in the right direction but the systematic implementation of public administration and e-government measures is still lagging behind. Although Bulgaria has transposed most EU rules, the existing weaknesses of public procurement practices hamper the efficiency of public spending.

1. ECONOMIC SITUATION AND OUTLOOK

GDP growth

Recent economic performance has been robust. After a good growth performance of 3.6 % in 2015, the economy is estimated to have grown by 3.3 % in 2016. Growth is expected to slightly taper off in 2017 and 2018, with 2.9 % and 2.8 %, respectively. Private consumption was the key growth driver in 2016, although net exports also contributed positively (Graph 1.1). In 2017, a slightly more diversified domestic demand will only partly compensate for quickly fading net exports due to an expected increase in imports. Labour market conditions have significantly improved during the economic recovery with an unemployment rate of 7.7 % in 2016 and forecast at 7.1 % in 2017.

Graph 1.1: Real GDP growth by demand components

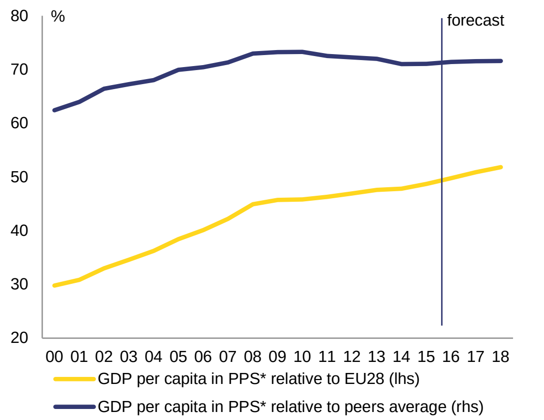


Source: European Commission

Investment was subdued in 2016 but is expected to gain momentum in 2017. Investment declined in 2016 by an estimated 0.5 %, mainly due to the sharp slowdown in EU funds implementation following the end of the 2007-2013 programming period. In contrast, investment is expected to exhibit a strong recovery in 2017 with a growth of 3.2 % amid an acceleration of projects under the new 2014-2020 programming period for EU funds.

Income convergence with the EU continues but the relative position against peers is unchanged. While income convergence with the EU is forecast to accelerate over the coming years (Graph 1.2), relatively low potential growth constrains further catching up. Structural reforms, higher private investment rates and improvements in the business environment, could, inter alia, promote faster convergence.

Graph 1.2: GDP per capita relative to peers and EU28



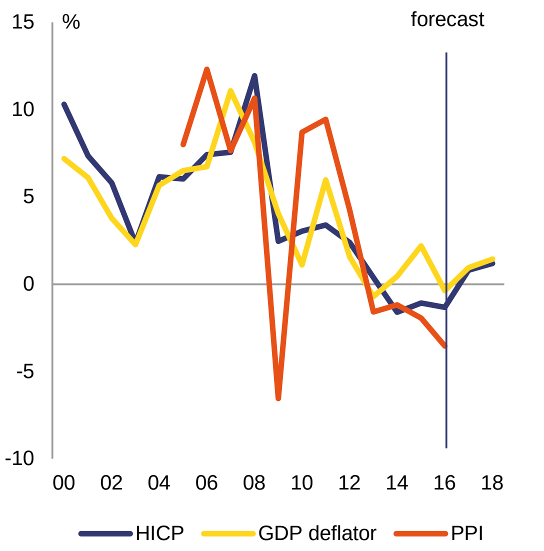
* Purchasing power standards
Source: European Commission
Note: The graph shows the percentage of GDP per capita, adjusted for differences in price levels (PPS), vis-a-vis peer countries: CZ,EE,LV,LT,HU,PL,RO,SI,SK.

Risks to the growth outlook are tilted towards the downside. As a domestic downside risk, a significantly slower than expected implementation of EU funds could dent investment and growth. Political uncertainty related to the upcoming elections could also delay consumption and investment decisions. Given the openness of the economy, weak import demand from the main trading partners, especially in Europe, and surging oil prices would pose external downside risks. However, a faster progress with structural reforms could lift potential and real growth rates over the medium term.

Inflation

Inflation is expected to pick up on the back of strong domestic demand and recovering energy prices. While annual HICP inflation was negative in 2016 at -1.3 %, it is expected to pick up pace to reach 0.8 % in 2017, mainly driven by buoyant domestic demand as well as recovering energy prices (Graph 1.3). This would reverse the deflationary trend experienced since 2013, which was mainly driven by declining import prices, subdued domestic demand, and reductions in administered prices.

Graph 1.3: **HICP, GDP deflator and producer price index (PPI)**

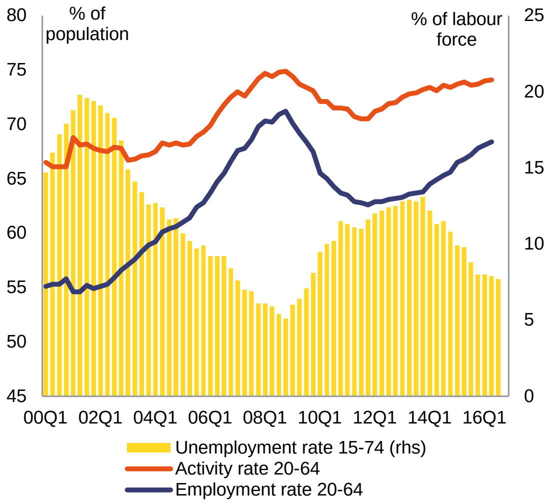


Source: European Commission

Labour market, Poverty and Social Exclusion

While the positive impact of economic growth is visible in the labour market, challenges remain. The labour market continued to improve in 2016. The employment rate for people aged 20 to 64 increased from 67.1 % in 2015 to 67.7 % (Q1-Q3 2016 average) (Graph 1.4), still below the EU average as well as the EU 2020 national target. The unemployment rate fell from 9.2 % in 2015 to 7.1 % in December 2016 (age group 15-74) and is now below the EU average of 8.2 %. In spite of the positive developments, labour market challenges remain, in particular the high share of long-term unemployment (59.6 % of total unemployment in Q1-Q3 2016) and the relatively high rate of young people not in employment, education or training (19.3 % in 2015).

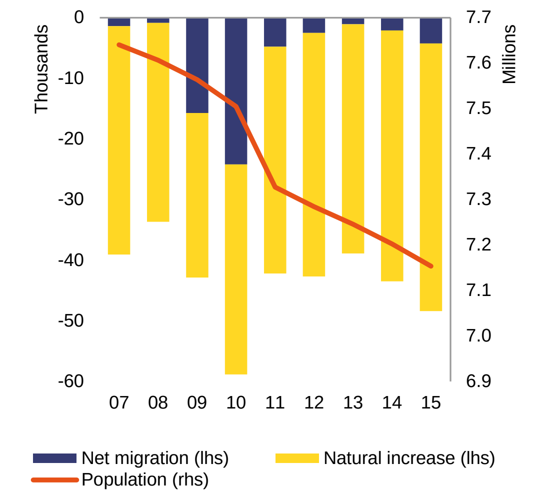
Graph 1.4: **Activity, employment and unemployment rates (quarterly, seasonally adjusted)**



Source: European Commission

Labour supply is hindered by unfavourable demographic developments. The population is fast ageing and decreasing due to a negative natural growth rate and negative net migration (Graph 1.5). The International Organisation of Migration estimates that 14 % of Bulgaria's citizens are currently living abroad. Ageing and emigration have contributed to labour shortages (see Section 4.3).

Graph 1.5: **Population dynamics**



Source: European Commission

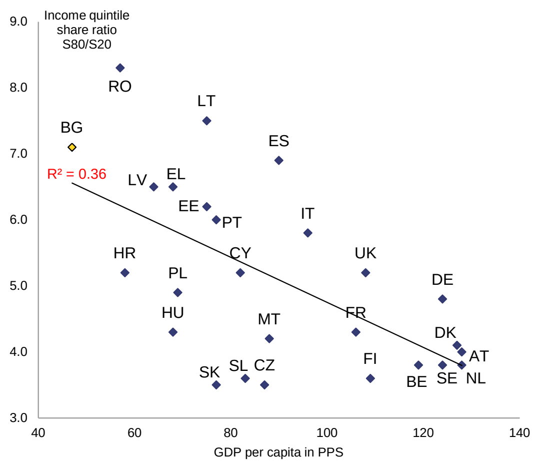
Structural weaknesses in the labour market and the strong economic recovery have resulted in rapid wage growth. Both the cumulative increase of compensation per employee (21.4 %) and of the nominal unit labour cost (14.9 %) were among the highest in the EU in 2013-2015 ([2]). Hence, the gains in labour productivity only partially counterbalanced the increase in wages. In spite of these developments, pressure on competitiveness has been contained so far, as export market shares have moderately increased (see Section 4.4).

Poverty and social exclusion continue to pose major challenges. The high level of poverty negatively impacts employment, educational and health prospects. The social situation of the elderly deteriorated significantly in 2015, after improving for the previous 5 years, while child poverty remains high despite a declining trend (see Section 4.3). People with disabilities face a higher risk of poverty or social exclusion than anywhere else in the EU.

Roma face disproportionately high levels of poverty and social exclusion. Lower education levels of Roma translate into weaker labour market integration and consequently higher risk of poverty or social exclusion than the rest of the population. Since over 20 % of new labour market entrants are Roma (World Bank, 2011), improving their educational outcomes and reducing poverty and social exclusion would have significant benefits for the wider economy (see Section 4.3.2). This may be particularly challenging in the context of high and increasing inequalities given the strong relationship between the socioeconomic background and educational performance of students.

Income inequality remains one of the highest in the EU. Despite growing GDP per capita, income inequality continues to increase. In 2012, the income of the richest 20 % of the population was six times that of the poorest 20 %. This ratio had increased to more than seven times in 2015. Bulgaria also has one of the highest income inequalities after taxes and social transfers, suggesting that they do not substantially alleviate inequalities (see Section 4.1.2). As benefits have not been regularly updated, those covered by them saw their revenues deteriorate. The urban-rural divide (spatial inequalities) represents an additional factor ([3]). The fact that lower income Member States appear to show higher income inequalities (Graph 1.6) only partially explains the figures for Bulgaria.

Graph 1.6: **GDP per capita in PPS in 2015 vs income quintile ratio (S80/S20) for the EU-countries**



Source: European Commission

External environment

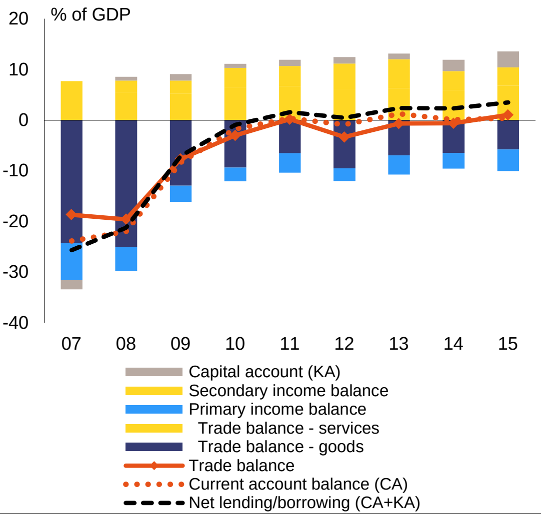
The current account balance benefited from a robust export performance but the surplus is set to deteriorate with the recovery of domestic

([2]) Growth of these variables has however decreased somewhat over this period.

([3]) In particular, the rural mean incomes as a percentage of urban incomes was 55.2 % in 2015, the lowest in the EU.

demand. Driven by stable demand from EU trading partners and a strong tourism season, exports performed well in 2016. As a result, the current account balance is estimated to have been at 2.6 % of GDP in 2016, after 0.4 % in 2015 (Graph 1.7). For instance, manufacturing industries, closely integrated in global value chains, have been a major component of the gains in export market shares in recent years (see Section 4.4). Despite the expected further increase in exports, the current account surplus is forecast to decrease to 1.4 % in 2017 and 0.8 % in 2018, mainly due to higher import growth fuelled by a strong domestic demand and by the expected rise in energy costs.

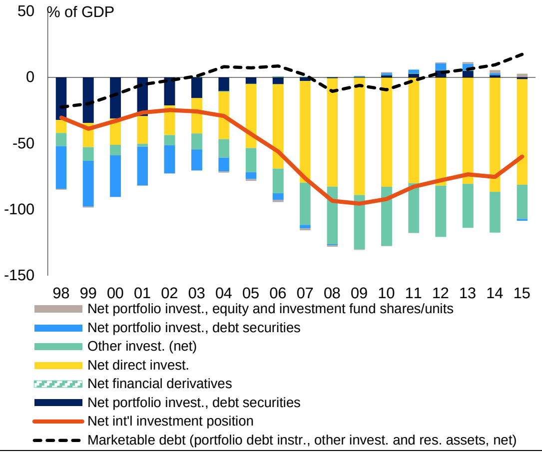
Graph 1.7: **Current account developments**



Source: European Commission

The net international investment position (NIIP) has significantly improved in recent years. From a peak of 95 % of GDP in 2009, the negative NIIP improved to 61 % in 2015 (Graph 1.8). The main factors include the increase in reserve assets, the reduction of banks' liabilities towards parent companies as well as the increase of foreign assets by domestic companies (mainly pension funds but also banks). Positive trade balance developments and the strong economic growth performance have also contributed to the positive NIIP trend. It should be noted that such negative NIIP figures are not uncommon for a catching up economy and are broadly in line with peer countries. Moreover, foreign direct investment (FDI) funds an increasingly large share of the NIIP.

Graph 1.8: **Net international investment position**



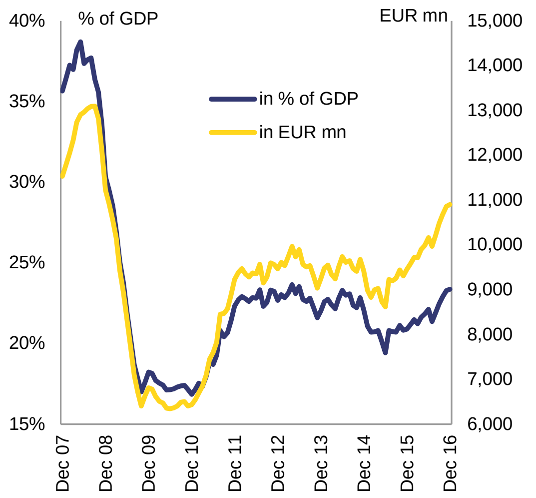
(1) 98-09 ESA95
10-15 ESA2010
Source: European Commission

Financial sector

Headline indicators suggest that financial sector robustness has increased, but vulnerabilities remain. The aggregate capital adequacy, risk coverage and liquidity of the banking sector as a whole have strengthened since the tensions in the summer of 2014. Profitability of the banking sector remains sound. Nevertheless, the results of the asset quality review in the banking sector point to pockets of weaknesses, including in systemic institutions, which warrant supervisory attention. The reviews of pension funds and insurance companies also showed the sectors are robust overall but highlighted weaknesses in some undertakings. Related-party and connected lending as well as exposure to hard-to-value assets are additional challenges for supervision (see Section 4.2).

Private sector lending is showing signs of a nascent recovery. Lending to non-financial corporations and to households has been gradually gaining strength (Graph 1.9). The pace of growth appears to have picked up particularly after the finalisation of the Asset Quality Review (AQR) and stress tests in the banking sector (see Section 4.2). There are signs of a credit demand recovery, in particular among households, reflecting strengthening labour market conditions and steadily decreasing lending rates. However, despite the growing flow of loans, stocks have remained fairly stagnant (see Section 4.4).

Graph 1.9: **Private sector banking credit flow, 12-month moving sums**



Note: Volume of new loans to non-financial corporations and households, 12-month moving sum
Source: Bulgarian National Bank, European Commission

Both supply and demand constraints continue to inhibit bank lending. After tightening significantly following the 2009 crisis, banks' lending standards have remained rather strict for corporates, while relaxing for consumer credit and mortgages (Bulgarian National Bank, 2016a). Still-high corporate indebtedness and difficulties in dealing with delinquent companies increase banks' risk aversion and impinge upon credit supply to firms (see Section 4.2) ([4]). Meanwhile, the credit worthiness of households has increased on the back of strong wage growth and lower debt levels, as well as a more active secondary market for non-performing consumer loans (see Box 4.2.1). Private sector demand for credit has been weak and economic growth is less credit-dependant than in the past.

House prices have increased rapidly recently, as lending conditions for households have eased. Residential property prices have increased by around 10 % on average between December 2014 and September 2016. The increase was higher in the capital, Sofia – around 16 % (NSI, 2016). Previously, housing prices bottomed out in 2013 and grew modestly until the end of 2014. Favourable lending conditions and an improved labour market contributed to the acceleration of house prices. The pace of the increase may pose overvaluation risks.

Public finances

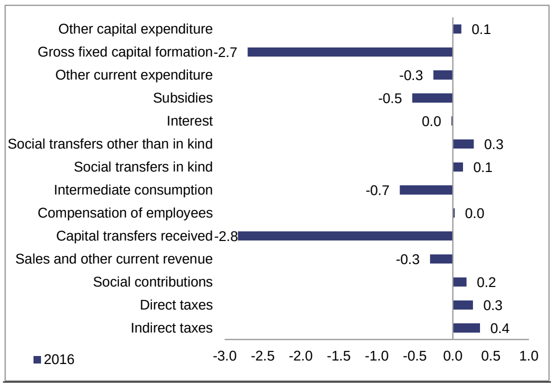
Fiscal consolidation has moved faster than planned. The public deficit is expected to have decreased from 1.7 % in 2015 to 0.4 % of GDP in 2016. Both revenue and expenditure performed better than expected (Graph 1.10). Revenue benefited from better macroeconomic conditions and from measures such as increases in the rates of excise duties for cigarettes and liquid heating fuels. Some improvements in the tax control and collection systems, together with signs of improved tax compliance, also contributed to the overall revenue performance. The lower-than-budgeted expenditure is mainly due to lower capital and other current spending, as the implementation of the new EU funds programmes has yet to gain momentum.

Fiscal consolidation is set to continue. According to the European Commission winter forecast, the budget deficit is forecast at 0.5 % and 0.3 % in 2017 and 2018, respectively. Revenue is forecast to continue improving on the back of positive macroeconomic developments. Expenditure is expected to increase mainly due to increases in some categories of public wages in 2017 and higher capital expenditure, most of which to be matched by revenue from EU funds. The structural deficit is expected to drop to 0.3 % of GDP, below the medium-term budgetary objective of 1 % of GDP in 2016, and to remain below 0.5 % of GDP in both 2017 and 2018.

Public debt is projected to decrease after 2016. General government debt increased to 29 % of GDP in 2016, mainly driven by a temporary increase in cash buffers. It is then forecast to decline to 27.3 % of GDP in 2017 and to 26 % in 2018 as a result of the relatively low primary balance and the impact of the improved debt financing conditions as well as the financing of debt repayments partly by the existing cash buffers.

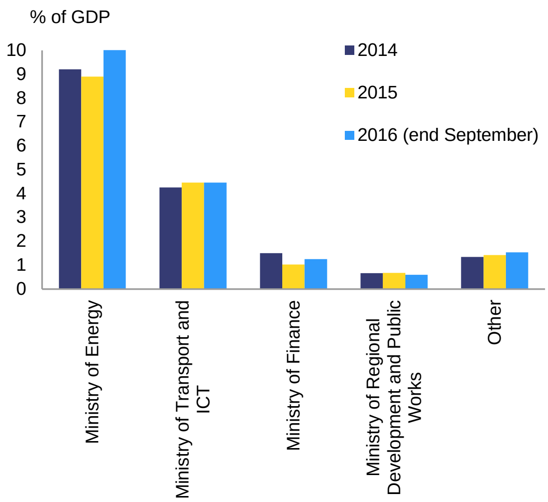
([4]) Debt of non-financial corporations stood at 89% of GDP in 2015.

Graph 1.10: **Public deficit reduction breakdown, 2016 vs 2015, in bn EUR**



Source: European Commission

Graph 1.11: **SOE liabilities as % of GDP per supervising ministry**



Source: Ministry of Finance, Bulgaria

Risks to the fiscal outlook mainly relate to high contingent liabilities from state-owned enterprises. According to the Ministry of Finance, total liabilities of state-owned enterprises (SOEs), where the State owns at least 50% and exerts control, amounted in September 2016 to more than 18 % of GDP. The highest share of contingent liabilities belongs to entities outside the general government (based on the Eurostat definition) which, as such, do not contribute to the public deficit and debt. The most indebted SOEs seem to be those in the energy sector (Graph 1.11).

A recent example of a contingent liability that materialised is the Belene case. Following the June 2016 ruling of the International Court of Arbitration on the cancelled project to build a nuclear reactor in Belene, the National Energy Company (NEK) had to compensate the Russian Atomstroyexport with EUR 601mn (1.3 % of GDP). The payment was finally made in December 2016 after the government extended an interest-free loan to NEK.

Table 1.1: **Key economic, financial and social indicators**

	2004-2008	2009	2010	2011	2012	2013	2014	2015	forecast 2016	2017	2018
Real GDP (y-o-y)	6.8	-3.6	1.3	1.9	0.0	0.9	1.3	3.6	3.3	2.9	2.8
Private consumption (y-o-y)	8.3	-4.5	1.4	2.0	3.0	-2.5	2.7	4.5	3.2	2.9	2.8
Public consumption (y-o-y)	2.3	-5.9	2.0	2.2	-2.0	0.6	0.1	1.4	1.1	2.0	2.3
Gross fixed capital formation (y-o-y)	17.7	-17.7	-17.7	-4.4	1.8	0.3	3.4	2.7	-0.5	3.2	3.6
Exports of goods and services (y-o-y)	12.7	-11.7	11.0	12.6	2.0	9.6	3.1	5.7	5.1	4.4	4.5
Imports of goods and services (y-o-y)	16.8	-21.5	-0.9	9.9	5.5	4.3	5.2	5.4	3.2	4.3	4.6
Output gap	2.0	-1.9	-1.1	0.3	-0.4	-0.7	-1.4	-0.7	-0.2	-0.1	-0.1
Potential growth (y-o-y)	6.0	2.2	0.5	0.5	0.7	1.2	2.1	2.9	2.8	2.8	2.8
Contribution to GDP growth:											
Domestic demand	10.4	-9.8	-3.7	0.6	1.9	-1.5	2.5	3.6	2.1	2.8	2.8
Inventories	0.5	-3.2	-0.1	0.2	0.2	-0.8	0.2	-0.1	0.0	0.0	0.0
Net exports	-4.1	9.4	5.1	1.0	-2.1	3.1	-1.3	0.1	1.2	0.2	0.0
Contribution to potential GDP growth:											
Total Labour (hours)	1.5	-0.8	-1.6	-1.5	-1.4	-0.9	0.1	0.6	0.5	0.4	0.3
Capital accumulation	2.4	2.3	1.2	1.1	1.2	1.2	1.0	1.1	1.0	1.0	1.0
Total factor productivity	2.0	0.7	0.8	0.9	0.8	0.8	1.0	1.2	1.3	1.4	1.5
Current account balance (% of GDP), balance of payments	-22.9	-8.3	-1.7	0.3	-0.9	1.3	0.1	0.4	.	.	.
Trade balance (% of GDP), balance of payments	-19.1	-7.7	-3.0	0.2	-3.3	-0.7	-0.6	1.0	.	.	.
Terms of trade of goods and services (y-o-y)	2.5	2.3	0.9	3.9	-2.3	-0.5	1.2	1.4	0.6	-0.3	0.3
Capital account balance (% of GDP)	-0.5	1.3	0.8	1.2	1.3	1.1	2.2	3.1	.	.	.
Net international investment position (% of GDP)	.	.	-91.9	-82.8	-77.9	-73.3	-75.2	-60.0	.	.	.
Net marketable external debt (% of GDP)1	.	.	-9.3	-2.5	3.6	6.2	9.5	17.4	.	.	.
Gross marketable external debt (% of GDP)1	.	.	66.0	58.4	59.1	57.2	62.9	54.5	.	.	.
Export performance vs. advanced countries (% change over 5 years)	57.8	29.2	16.8	21.3	10.9	9.5	14.0	15.22	.	.	.
Export market share, goods and services (y-o-y)	6.3	-4.5	-7.6	12.1	-4.5	6.5	0.6	-1.7	.	.	.
Net FDI flows (% of GDP)	-20.9	-6.8	-2.4	-2.9	-2.5	-3.0	-2.1	-3.5	.	.	.
Savings rate of households (net saving as percentage of net disposable income)	-14.1	-2.6	-5.1	-4.3	-10.0	-3.1	-16.5	.	.	.	.
Private credit flow (consolidated, % of GDP)	27.9	4.7	3.6	1.3	3.0	7.2	-1.1	-0.3	.	.	.
Private sector debt, consolidated (% of GDP)	95.2	133.8	132.5	124.3	125.0	131.8	123.7	110.5	.	.	.
of which household debt, consolidated (% of GDP)	18.1	26.8	26.0	23.8	23.2	23.1	23.1	21.7	.	.	.
of which non-financial corporate debt, consolidated (% of GDP)	77.1	107.0	106.5	100.5	101.8	108.7	100.6	88.8	.	.	.
Corporations, net lending (+) or net borrowing (-) (% of GDP)	-8.2	1.6	6.0	6.8	7.1	6.0	15.0	7.7	8.1	8.7	9.2
Corporations, gross operating surplus (% of GDP)	26.6	29.3	29.2	30.2	30.0	29.7	30.1	29.4	28.2	27.9	27.9
Households, net lending (+) or net borrowing (-) (% of GDP)	-9.0	-4.4	-3.7	-3.3	-6.6	-2.7	-5.8	-7.4	-7.1	-8.6	-9.5
Deflated house price index (y-o-y)	23.7	-21.0	-12.3	-8.7	-5.3	0.4	1.5	1.6	.	.	.
Residential investment (% of GDP)	4.3	4.7	2.7	2.2	1.7	1.7	1.6	1.4	.	.	.
GDP deflator (y-o-y)	7.6	4.0	1.1	6.0	1.6	-0.7	0.5	2.2	-0.4	1.0	1.4
Harmonised index of consumer prices (HICP, y-o-y)	7.8	2.5	3.0	3.4	2.4	0.4	-1.6	-1.1	-1.3	0.8	1.2
Nominal compensation per employee (y-o-y)	10.3	8.1	9.9	6.8	7.7	8.8	5.6	5.6	3.8	4.8	5.1
Labour productivity (real, person employed, y-o-y)	3.8	-1.9	5.4	4.2	2.6	1.3	1.0	3.3	.	.	.
Unit labour costs (ULC, whole economy, y-o-y)	6.2	10.2	4.3	2.5	5.0	7.4	4.6	2.3	1.6	2.3	2.4
Real unit labour costs (y-o-y)	-1.3	5.9	3.1	-3.3	3.4	8.2	4.1	0.1	2.0	1.3	0.9
Real effective exchange rate (ULC, y-o-y)	4.1	7.7	1.7	3.2	1.7	9.0	4.6	-0.1	0.3	2.2	0.2
Real effective exchange rate (HICP, y-o-y)	4.5	4.0	-2.9	0.9	-2.0	0.1	-0.9	-3.3	-0.4	-1.3	.
Tax wedge on labour for a single person earning the avg wage (%)	20.7	21.7	20.9	21.6	21.6	21.6	21.6	21.6	.	.	.
Taxe wedge on labour for a single person earning 50% of the avg wage (%)	.	21.7	20.9	21.6	21.6	21.6	21.6	21.6	.	.	.
Total Financial Sector Liabilities, non-consolidated (y-o-y)	30.0	1.1	-8.9	4.6	11.4	5.2	6.2	3.1	.	.	.
Tier 1 ratio (%)2	.	17.5	16.5	14.9	14.6	15.0	18.5	18.2	.	.	.
Return on equity (%)3	.	8.7	8.3	4.7	3.6	4.1	1.7	2.6	.	.	.
Gross non-performing debt (% of total debt instruments and total loans and advances) (4)	.	11.5	17.9	19.7	19.8	18.6	14.4	13.0	.	.	.
Unemployment rate	8.7	6.8	10.3	11.3	12.3	13.0	11.4	9.2	7.7	7.1	6.8
Long-term unemployment rate (% of active population)	5.0	2.9	4.7	6.3	6.8	7.4	6.9	5.6	.	.	.
Youth unemployment rate (% of active population in the same age group)	17.9	15.1	21.9	25.0	28.1	28.4	23.8	21.6	18.9	.	.
Activity rate (15-64 year-olds)	64.7	67.2	66.7	65.9	67.1	68.4	69.0	69.3	.	.	.
People at-risk poverty or social exclusion (% total population)	55.6	46.2	49.2	49.1	49.3	48.0	40.1	41.3	.	.	.
Persons living in households with very low work intensity (% of total population aged below 60)	12.9	6.9	8.0	11.0	12.5	13.0	12.1	11.6	.	.	.
General government balance (% of GDP)	1.5	-4.1	-3.1	-2.0	-0.3	-0.4	-5.5	-1.7	-0.4	-0.5	-0.3
Tax-to-GDP ratio (%)	30.9	27.2	26.0	25.3	26.7	28.2	28.4	29.0	29.8	30.0	30.2
Structural budget balance (% of GDP)	.	.	-2.7	-2.0	-0.2	-0.2	-1.8	-1.4	-0.3	-0.5	-0.3
General government gross debt (% of GDP)	22.6	13.7	15.3	15.2	16.7	17.0	27.0	26.0	29.0	27.3	26.0

(1) Sum of portfolio debt instruments, other investment and reserve assets,(2,3) domestic banking groups and stand-alone banks.(4) domestic banking groups and stand-alone banks, foreign (EU and non-EU) controlled subsidiaries and foreign (EU and non-EU) controlled branches.
Source: European Commission

2. PROGRESS WITH COUNTRY-SPECIFIC RECOMMENDATIONS

Progress with implementing the 2016([5]) recommendations addressed to Bulgaria has to be seen in a longer term perspective since the introduction of the European Semester in 2011.

The fiscal framework has improved with the adoption and implementation of medium-term fiscal strategies and the establishment of the Fiscal Council. However, there has been only limited progress in improving the quality of public spending. Despite some progress since 2015, addressing tax non-compliance and the informal economy remains a challenge.

The most notable progress has been achieved in increasing and equalizing the statutory retirement age. The relevant 2013 and 2014 CSRs were fully addressed with the 2015 pension reform.

The adoption of the Pre-school and School Education Act is another example of successful CSR implementation. The higher education reform accelerated. However, since 2014 Bulgaria has not progressed much on improving the provision of quality education for disadvantaged groups.

Calls to extend the coverage and effectiveness of active labour market policies have had some impact, but the targeting of measures and their link with social services remains limited. Successive CSRs to address the high percentage of young people not in employment, education or training have resulted in a variety of measures undertaken by the authorities. However, this progress has not yet translated into significant results. Good progress has been achieved in reforming the public employment services with the help of the European Network of Public Employment Services. Work on a minimum wage setting mechanism based on objective criteria has progressed somewhat, as the social partners and the government now seem to agree on the criteria to be used, but not on their weights. Calls to reduce undeclared work led to inspections and the introduction of one day contracts in agriculture, but the share of undeclared work remains high. There was only limited progress on CSRs to reduce poverty and improve the situation of Roma.

Healthcare reforms in 2015-2016 have addressed concerns raised in successive CSRs, but actual implementation of agreed measures, such as selective contracting based on the National Health Map, is stalling.

Progress has been slow in reforming the **insolvency framework** since 2014.

Recommendations on public procurement, first introduced in 2011, have not significantly changed over the years. In the context of implementing commitments under the National Public Procurement Strategy 2014-2020 as well as the Action Plan on the Partnership Agreement (for the programming period 2014-2020), a number of measures have been put in place, especially in the last quarter of 2016. Their concrete impact on the Bulgarian public procurement landscape remains to be seen. There has been insufficient progress so far in enhancing the authorities' administrative capacity in public procurement and no specific achievements in the e-procurement.

Overall Bulgaria has made [some] progress in addressing the 2016 country-specific recommendations. Efforts to improve tax compliance and collection are ongoing, while only limited progress was done to tackle undeclared work. The asset quality review and stress tests in the banking sector were completed but did not respect full transparency and their design did not fully address the recommendation. Follow-up actions have been addressed to banks, and the ongoing implementation is due by April 2017. The pension funds and insurance sector reviews were completed with a high degree of independence and transparency. The work performed to identify related-party investments does not allow to fully address the recommendation. The supervisor took the least conservative approach when requesting the initial follow-up actions. Shortcomings in financial sector supervision remain to be adequately addressed, notwithstanding steps already taken for the banking sector. Some progress was made on the integration of employment services and social assistance, while progress with the reform of pre-school, education and healthcare remains limited. The Youth

([5]) For the assessment of other reforms implemented in the past see, in particular, Section 4.

Guarantee is being implemented, but employment indicators for young people remain of concern. A minimum wage setting mechanism is still to be developed. On insolvency, the amendments to the Commercial Act were approved with significant delay, in December 2016. The government has taken some measures to implement the National Public Procurement Strategy. However, actions to introduce e-procurement and to strengthen the capacity of the Public Procurement Agency and the contracting authorities are still ongoing.

Table 2.1: **Summary Table on 2016 CSR assessment**

Bulgaria	**Overall assessment of progress with 2016 CSRs: Some**
CSR 1: *Achieve an annual fiscal adjustment of 0,5 % of GDP towards the medium-term budgetary objective in 2016 and in 2017. Further improve tax collection and take measures to reduce the extent of the informal economy, including undeclared work. (MIP relevant)*	• **Some progress** in improving tax collection and reducing the extent of the informal economy
CSR 2: *By the end of 2016, finalise the asset quality review and stress test of the banks. By the end of 2016, complete the balance-sheet review and stress test of the insurance companies and the review of private pension funds' assets. Take, as necessary, follow-up actions in all three sectors and continue to improve banking and non-banking supervision. (MIP relevant)*	**Some progress** • **Some progress** in finalising the asset quality review and stress test of the banks • **Substantial progress** in finalising the balance-sheet review and stress test of the insurance companies and the review of private pension funds' assets • **Limited progress** in taking, as necessary, follow-up actions […] and in improving banking and non-banking supervision
CSR 3: *Reinforce and integrate social assistance, including relevant social services, and active labour market policies, in particular for the long-term unemployed and young people not in employment, education or training. Increase the provision of quality education for disadvantaged groups, including Roma. Improve the efficiency of the health system by improving access and funding, and health outcomes. In consultation with social partners establish guidelines and criteria for setting the minimum wage. Increase the coverage and adequacy of the minimum income scheme. (MIP relevant)*	**Limited progress** • **Some progress** in reinforcing and integrating social assistance, including relevant social services, and active labour market policies […] • **Limited progress** in increasing the provision of quality education for disadvantaged groups, including Roma • **Limited progress** in improving the efficiency of the health system by improving access and funding, and health outcomes • **Limited progress** in establishing guidelines and criteria for setting the minimum wage. • **Limited progress** in increasing the coverage and adequacy of the minimum income scheme
CSR 4: *Reform the insolvency framework to accelerate recovery and resolution procedures and improve their effectiveness and transparency. Increase the capacity of the courts regarding insolvency procedures. Strengthen the capacity of the Public Procurement Agency and contracting authorities and improve the design and control of public tendering procedures, in particular by fully implementing the National Strategy for the development of the Public Procurement Sector (2014-2020). Speed up the introduction of e-procurement. (MIP relevant)*	**Limited progress** • **Limited progress** in reforming the insolvency framework […] • **Some progress** in strengthening the capacity of the Public Procurement Agency and contracting authorities and improving the design and control of public tendering procedures […] and limited progress in speeding up the introduction of e-procurement

(1) This overall assessment of CSR1 does not include an assessment of compliance with the Stability and Growth Pact.
Source: European Commission

Box 2.1: **Contribution of the EU budget to structural change in Bulgaria**

Bulgaria is a large beneficiary of EU structural funds. The country will receive EUR 9.9 billion over the period 2014-2020 from the European Structural and Investment Fund (ESI Funds). This is equivalent to 3 % of GDP (annually over 2014-2017) and over 49 % of total public investment ([1]). By end- 2016, an estimated EUR 3.3 billion, which represents about 33 % of the total allocation for ESI Funds, had already been allocated to concrete projects (See also Section 4.4.2). Apart from the ESI Funds, the European Fund for Strategic Investments, Horizon 2020, the Connecting Europe Facility and other directly managed EU funds are additional financing sources. By end-2016, Bulgaria has signed agreements for EUR 294 million under the Connecting Europe Facility, while the EIB Group has approved financing under EFSI for EUR 204 million, which is expected to trigger EUR 969 million in total.

ESI Funds helped progress on a number of structural reforms in 2015 and 2016 via ex-ante conditionalities and targeted investment ([2]). Examples include the water and transport infrastructure sectors, as well as education, R&I, public procurement and healthcare. These reforms have led to a better implementation of public investment projects, including those financed from both national sources and EU instruments. Fulfilment of the outstanding ExACs is on track, while critical reforms are pending in public procurement, smart specialisation and air quality. Administrative reforms support is also available indirectly through targeted financing under the ESF, advice from the Structural Reform Support Service and indirectly through technical assistance.

When designing the 2014-2020 programmes, relevant CSRs with focus on structural issues were taken into account They include, inter alia, the reduction of obstacles to investment in education, social and health sectors by improving administrative and technical capacities of the local public administration. In addition, ESI Funds help to improve the overall business environment, including through facilitating SME access to finance. In particular, the European Social Fund (ESF),contributes to reforming systemic institutional capacity changes. It has also led to the creation and funding of centres that provide integrated employment and social services (Public Employment Services). In addition, ESF actions also target young people who are neither in employment or education, nor in training or are long-term unemployed ([3]).

ESI Funds also help to address wider structural obstacles to growth and competitiveness. The ESI Funds support reforms in the education system, labour market and state administration institutions. They also integrate disadvantaged groups, such as the Roma, address bottlenecks in transport infrastructure, and incentivise innovation and private investments (some EUR 500 million are targeted in research, innovation and science). ESI Funds also help some 10 000 enterprises and 400 start-ups, while increasing the long-term sustainability of the utility sector through investment in compliant waste water treatment for 1.5 million inhabitants.

https://cohesiondata.ec.europa.eu/countries/BG

([1]) National public investment is defined as gross capital formation + investment grants + national expenditure on agriculture and fisheries

([2]) Before programmes are adopted, Member States are required to comply with a number of ex-ante conditionalities, which aim at improving framework and conditions for the majority of public investments areas. For Members States that did not fulfil all the ex-ante conditionalities by the end of 2016, the Commission has the possibility to propose the temporary suspension of all or part of interim payments.

([3]) To date, 23 000 young people have made use of the Youth Employment Initiative, financed measures.

3. SUMMARY OF THE MAIN FINDINGS FROM THE MIP IN-DEPTH REVIEW

The Alert Mechanism Report-2017 called for further in-depth analysis to monitor progress in the unwinding of the excessive imbalances identified in the 2016 MIP cycle. The selection was motivated by the fact that Bulgaria was identified with excessive imbalances in spring 2016 after IDR analysis, so that a new IDR is needed to assess how these imbalances evolve. The identified excessive macroeconomic imbalances were remaining fragilities in the financial sector and high corporate indebtedness in a context of the high share of long-term unemployment.

Analyses integrated in this Country Report provide an In-Depth Review (IDR) into how the identified imbalances have developed. In particular IDR relevant analysis is found in the following sections: financial sector imbalances, discussed in section 4.2.1; developments in private indebtedness in section 4.2.4. An additional IDR relevant topic through its links to private indebtedness and growth is that of investment, analysed in section 4.4. Labour market related adjustment aspects are dealt with in section 4.3.

3.1 Imbalances and their gravity

Despite robust aggregate performance, pockets of fragilities in the banking sector continue to warrant attention. Issues are linked to the asset-quality of certain parts of the system, particularly due to the lack of adequate diversification and the existence of connected lending and related-party transactions. Though not widespread across the system, the materialisation of these risks could jeopardize overall financial stability.

Similar fragilities are also present in other parts of the financial system, including the insurance and pension funds sectors. Related-party transactions, investments in illiquid securities and non-traded assets as well as complex cross-ownership structures for some institutions increase the overall risks to financial stability.

Bulgaria continues to exhibit a high negative net international investment position (NIIP), though this partly reflects its status as a catching-up economy. Bulgaria's NIIP further improved to -61 % of GDP in 2015, the highest level in a decade and in line with regional peers. Most of the NIIP is composed of relatively stable foreign direct investment (FDI).

Private sector debt remains high in spite of the ongoing deleveraging. Overall private sector debt fell decisively from 124 % of GDP in 2014 to 111 % in 2015 this was predominantly driven by non-financial corporates. Corporate deleveraging continues to be constrained by limited reform progress on the insolvency framework. Corporate debt servicing is aggravated by the persistently low inflation as well as high non-financial corporates leverage. In particular, the elevated corporate debt burden can negatively affect investment and growth over the medium term.

Persistent structural issues hamper the labour market adjustment. Despite notable improvements in the unemployment rate, around 60 % of the unemployed are long-term unemployed. In addition, skills, sectoral and geographical mismatches negatively impact the functioning and the adjustment capacity of the labour market.

3.2 Evolution, prospects, and policy responses

The positive macroeconomic developments in 2016, together with some policy action, will support the unwinding of imbalances in the Bulgarian economy. The banking sector showed very good performance on aggregate throughout 2016 in terms of profitability, liquidity, capital adequacy and asset quality. Deleveraging in the private sector also picked up steam supported by a strong rebound in nominal GDP growth. However, concerns remain as legacy issues have not yet been fully dealt with.

The authorities are taking measures to address the challenges faced by the banking sector. Acknowledging the risks, the authorities organised and completed independent reviews of the banking, insurance and pension fund markets. While the banking review showed robust aggregate results, two institutions, one of which systemic, need to strengthen their capital buffers and policies. The follow-up of the asset quality review and stress tests has not yet been finalised.

Independent reviews of the private pension funds and insurance companies were concluded. The insurance sector review showed a quarter of the undertakings did not meet the capital requirements. Follow-up actions have either already been taken by the concerned entities or have been requested by the supervisor. Further considerable adjustment needs remain possible until questions over certain reinsurance contracts, are fully clarified. Similarly, further adjustments could result from a full group-level assessment for two of the insurance groups, which was not completed during the review. Further impairments may occur from overdue insurance receivables. The pension funds' review resulted in minor adjustments to the funds' net assets. However, the reviews highlighted important issues for some of the funds, including investments in illiquid financial instruments, related-party exposures in the broader economic sense, and complex cross-ownership structures. All of these factors could have a significant impact on the long-term benefits accruing to the pension funds' account holders.

Some challenges persist in financial sector supervision. The valuation of less liquid assets is a challenge for supervision. A risk-based approach is necessary to tackle exposure to hard-to-value assets and related-party and connected exposures. Complex ownership and cross-ownership structures appear to only satisfy the legal restrictions but not the economic rationale of limiting the risk for the clients and sector as a whole. Further issues related to certain reinsurance contracts remain to be clarified.

External indebtedness is expected to further decrease moderately and is broadly in line with regional peers. The NIIP has been on a strong downward trend since 2009, when it reached a record -95 % of GDP. Specific policy measures are not expected. Positive current account developments would contribute to a further reduction of the NIIP. In contrast, rapid wage growth could negatively impact competitiveness and, hence, current account and NIIP levels over the medium term.

The reduction of corporate indebtedness could benefit from accelerating the insolvency reforms and a deeper secondary market for non-performing loan (NPLs) sales. Amendments to the Commercial Act by Parliament which aim *inter alia* to accelerate pre-court and out-of-court restructuring have been approved with a significant delay in December 2016 while other measures to improve the insolvency framework await implementation. (see Section 4.6). Furthermore, a stronger market for sales of SME and mortgage NPLs could further facilitate banks to write-off their NPL stock. This could contribute to the ongoing corporate deleveraging trend.

Issues hampering an effective matching of demand and supply in the labour market persist. Labour market adjustment is still hindered by the limited prioritisation and targeting of active labour market policies. Structural issues remain, such as the high share of long-term unemployment and various mismatches. In addition, transparent mechanism for setting the minimum wage was not developed.

3.3 Overall assessment

Bulgaria faces sources of imbalances which are mainly linked to vulnerabilities in the financial sector as well as high corporate indebtedness. The robustness of the banking sector appears to have improved. In particular, the asset quality review and the stress test conducted in 2016 did not reveal major capitalisation needs on aggregate, even though some pockets of vulnerabilities were confirmed. The legacy issues linked to weak governance and supervision have not yet been fully dealt with. Follow-up measures, notably for the weakest institutions, are in the process of implementation. Similarly, the reviews of the pension fund and insurance companies showed that the sectors are robust overall. Nevertheless, individual weaknesses of certain insurance undertakings and insurance groups as well as wider issues related to some insurance receivables and reinsurance contracts remain a concern. Further issues in the pension fund sector, including related-party investments and hard-to-value assets, will be key supervisory challenges. While the private sector is on an orderly deleveraging path, the elevated corporate debt burden can negatively affect investment and growth over the medium term. In this regard, the reforms to the insolvency framework can further help with private sector indebtedness. The NIIP has been rapidly improving in line with the strong economic recovery, the current account surplus and the ongoing deleveraging. Meanwhile, persistent structural weaknesses still hamper the labour market adjustment, as policy actions have not been sufficient to address long-term unemployment and market mismatches, nor to improve the wage setting system.

Table 3.1: **MIP Assessment matrix**

	Gravity of the challenge	Evolution and prospects	Policy response
Imbalances (unsustainable trends, vulnerabilities and associated risks)			
Financial sector	Risks stemming from the banking and non-banking financial sector are related to credit quality concerns and the extent of imprudent business practices. The ownership structure of some institutions renders them vulnerable to concentration and operational risk through imprudent management, related-party and connected exposures The materialisation of these risks would pose a challenge for financial stability, for the efficiency of resource allocation in the economy and for public finances. The gravity of the challenge in the banking sector has been reduced with the carrying out of an asset quality review of the entire sector. Tackling hard-to-value assets, related-party and connected lending, however, remains a challenge for supervision. Albeit improving, an elevated level of non-performing loans, however, continues to pose a challenge. [Non-banking financial sector. This section will be drafted just before 3 February. The deadline of end 2016 for completing the reviews was missed. The new deadline is end of January 2017, with publication of results tentatively for 3 February.]]	The asset quality review and stress test of the banking sector did not identify a significant need for additional capital across the sector. No state capital support has been necessary so far. Nevertheless, exposure to hard-to-value assets and related-party and connected lending remains a key challenge for the supervisory authorities. Risks to macro-financial stability from the pension funds and insurance industries have recently increased with their increasing size. A favourable macroeconomic environment and the presence of a secondary market, albeit limited in size and scope, allows banks to gradually reduce the size of their non-performing loans. A significant amount of additional exposures was found to be non-performing as a result of the banking asset quality review.	An asset quality review and stress test has been completed in the banking sector, conducted by the Bulgarian National Bank, with the help of an external consultant, following the methodology established by the ECB. The BNB has addressed follow-up recommendations to banks. Their implementation is ongoing. The design of the exercise, however, deviated to some extent from international practice in terms of independence and transparency. Banking supervision is in the process of being strengthened to align it with good international practices. Challenges going forward include related-party and connected lending and exposures to hard-to-value assets. [Non-banking financial sector This section will be drafted just before 3 February. The deadline of end 2016 for completing the reviews was missed. The new deadline is end of January 2017, with publication of results tentatively for 3 February.].
External indebtedness	Bulgaria continues to exhibit a high negative NIIP of -61% of GDP, well below the scoreboard threshold of -35%.	The negative NIIP has significantly improved from a peak of 95% of GDP in 2009 to 75% in 2014 and 61% in 2015.	The latest NIIP figures are not unusual for a catching up economy and are in line with peer countries. No policy steps have been taken by the authorities since the external debt issue is not identified as a pressing one.
Corporate debt and deleveraging	The accumulation of a high private sector debt stock in the pre-crisis years suggests the need for a significant but orderly deleveraging. The negative impact of the slow corporate deleveraging path is especially reflected on the subdued credit demand. Low inflation has put a further strain on corporate debt servicing. Any deleveraging pressures may weigh on investment and growth, in particular medium-term growth prospects.	High private debt, the majority comprising NFCs, continues to be a significant concern. However, the deleveraging process has been orderly with debt of NFCs almost 12 pps. lower y-o-y in 2015 with 89%	Further policy steps are needed to improve the insolvency framework, including legislation, institutions and practices. The Government in 2015 has initiated work on amending the insolvency-related parts of the Commercial Act with a focus on pre-court and out-of-court restructuring settlements as well as on accelerating court rulings. However, adoption of the amendments to the Commercial Act by Parliament has been significantly delayed (See Section 4.6.3).

(Continued on the next page)

Table (continued)

Adjustment issues			
Labour market	The existing mismatches (incl. skills, sectoral, regional) impair the functioning of the labour market. The share of long-term unemployment constitutes over 58% of total unemployment (average of Q1 and Q2 2016; age group 20-64), one of the highest levels in the EU, underlining the largely structural nature of unemployment. Minimum wage (MW) levels are still decided without a transparent mechanism based on relevant macro-indicators. In its absence, the right balance between the objectives of supporting employment and safeguarding labour income cannot be ensured.	The persistent mismatches continue hampering the labour market adjustment. Long-term unemployment as a share of total unemployment remains very high. The administratively-decided raise of the MW for 2017 by 9.5% increases the pressure on the low-skilled thus limiting the labour market adjustment.	The government has taken steps to optimise its ALMP; however their prioritisation and targeting remains limited. The policy gap remains in the area of MW setting, as a transparent mechanism has still to be developed (See Section 4.3.1).

Conclusions from IDR analysis

- Bulgaria continues to be subject to stock imbalances related to remaining fragilities in the financial sector and high corporate indebtedness. These imbalances create vulnerabilities to a sudden adverse shock, which would have harmful effects on the functioning of the economy over the short-to-medium run.
- The banking sector asset quality review and stress tests have been completed with only small identified capital needs during the stress test, while the insurance and pension funds ones are expected to be completed by end-2016. [The deadline of end 2016 for completing the reviews was missed. The new deadline is end of January 2017, with publication of results tentatively for 3 February]. Follow-up measures are pending, especially the need to further strengthen bank supervision. Reforming the insolvency framework remains a further challenge given the delays.
- Some stabilisation of the banking sector occurred in 2015 together with returning confidence, but follow-up measures from the asset quality review are pending. Deleveraging in the corporate sector has been orderly but slow, leaving a large private sector debt stock as well as still high NPL levels. Labour market conditions have improved. The share of long-term unemployment has decreased but is still very high, Moreover, different labour mismatches continue to impair the on-going adjustment of the economy.

Source: European Commission

4. REFORM PRIORITIES

4.1. PUBLIC FINANCES AND TAXATION

4.1.1. FISCAL FRAMEWORK

With the establishment of the Fiscal Council, the framework for fiscal governance is mostly complete. The members of the Fiscal Council were appointed by Parliament at the end of 2015 and the Council became operational in the first half of 2016. Its mandate includes monitoring compliance with national and EU fiscal rules, preparing and publishing opinions on official macroeconomic forecasts and budgetary plans, and supervising the automatic correction mechanism. A memorandum sets out the terms of cooperation with the Ministry of Finance, which seems so far to have been relatively good and open in terms of information exchange.

The Fiscal Council has already published a number of opinions and recommendations. These include the opinion and recommendations on the 2015-2018 Convergence Programme and on the 2017 draft budget. However, the absence of financial autonomy and the limited human resources may constrain the Fiscal Council's operational capacity.

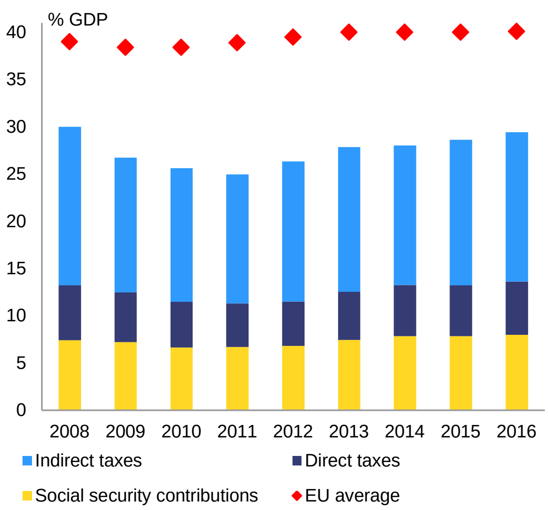
The implementation of the budgetary process is relatively stable and predictable. The draft budget must comply with the rules and procedures defined in the fiscal framework laws ([6]). These laws cannot be amended by a budget law. The expenditure ceilings can be changed twice a year, in April in the context of the medium-term fiscal strategy and in October as part of the annual budget procedures. If there are major deviations from the budgetary targets, the government is required to amend the budget and the medium-term fiscal strategy. Policy measures with fiscal impact — except those initiated by members of the Parliament — must be accompanied by an impact assessment and compensating measures or sources of financing.

([6]) Namely, the Public Finance Act (SG No. 15/15.02.2013) and the Law on Fiscal Council and Automatic Correction Mechanisms (SG No.29/21.04.2015).

4.1.2. TAX POLICY

Tackling the shadow economy and reducing administrative burden remain key challenges despite recent encouraging improvements in tax collection. The tax-to-GDP ratio is among the lowest in the EU and the value-added tax (VAT) gap was 20 % in 2014, well above the EU median of 10 % (CASE, 2016) ([7]). Tax revenue as a percentage of GDP has increased since 2011 to an estimated 29.4 % in 2016, but is still below pre-crisis levels (Graph 4.1.1). The increase in VAT revenues between 2015 and 2016 suggests some improvement in the collection of indirect taxes. Income taxes and social security contributions remained relatively stable as a percentage of GDP (Graph 4.1.1), implying limited progress in the fight against undeclared work. Paying taxes continues to be more time consuming than in other EU Member State, especially when it comes to labour and consumption taxes (PWC, 2016, and European Commission, 2016a).

Graph 4.1.1: **Tax revenue main components**



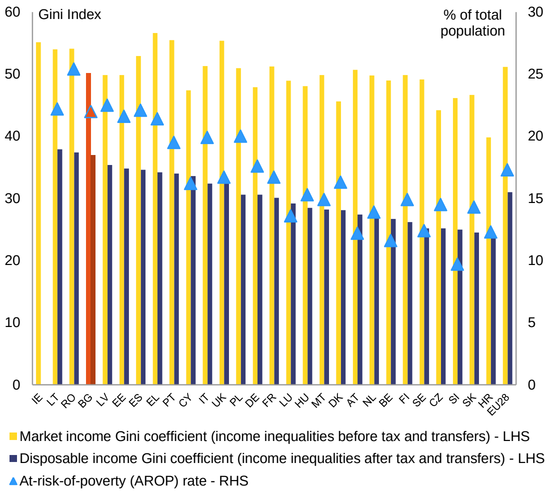
Source: European Commission

Indirect taxes have a higher contribution to public revenues than direct taxes. Indirect taxation accounted for around 53 % of total tax

([7]) The VAT gap is measured as the share of VAT revenue to a theoretical VAT liability.

revenues in 2015. Energy taxes are a significant revenue item, suggesting a growth-friendly tax structure. However, some tax rates within this category, such as on petrol and diesel, remain among the lowest in the EU and very close to the EU minimum levels of taxation ([8]). Other growth-friendly taxes such as recurrent property taxes are also relatively low ([9]).

Graph 4.1.2: **Level of income inequality in EU Member States**



2015 data partially available for IE.
Source: European Commission, based on Eurostat/EU SILC

The tax system seems to play a limited role in combating income inequalities. Income inequality after taxes and benefits, as described by the Gini coefficient ([10]) is one of the highest in the EU (Graph 4.1.2). The structure of the tax system, the high levels of tax evasion and undeclared work and consequently the relatively low tax revenue provide limited fiscal space. The difference between income inequality indices before and after taxes and benefits is relatively small (Graph 4.1.2). This suggests that the tax and benefits systems have a limited role in reducing income inequality.

Efforts to improve the efficiency of the tax system are ongoing. The implementation of the strategy adopted by the government in October 2015 and a number of measures included in the accompanying action plan are already in place (Ministry of Finance – Bulgaria, 2016). The Law on VAT was amended in 2016 to further tighten the control on trade in liquid fuels. Administrative measures have been put in place to improve cooperation between customs and the Ministry of the Interior ([11]). Physical checks for tax and social security contributions were increased. The authorities estimate the impact of the tax measures in place at more than BGN 350 million (EUR 179 million) for 2016 (Table 4.1.1).

Table 4.1.1: **Impact of measures to improve tax collection in 2016**

Measure	Expected impact, 2016 (mn BGN)
Reverse charge mechanism for VAT on cereal and industrial crops.	40.0
Extension of the scope and refinement of the mechanism for tax controls over the movement of high risk products.	30.0
Strengthening the controls on vehicles carrying "cargo" goods and over the production and transportation of excise goods.	11.5
Improvement in cross-checking and collection of overdue liabilities from public sector contactors.*	125.0
Other measures to improve collection of overdue liabilities.*	102.5
Enforcement proceedings for the collection of taxes and obligatory social security contributions.*	42.6
Total	**351.6**
% of GDP	*0.4*

* 10-month impact
Source: Ministry of Finance, Bulgaria

Progress has also been made in international tax cooperation in 2016. Bulgaria signed and ratified the Convention on Mutual Administrative Assistance in Tax Matters and the Multilateral Competent Authority Agreement. It also joined the Global Forum on Transparency and Exchange of Information for Tax Purposes. This will enable the country to receive information automatically and upon request from a large number of jurisdictions around the world.

([8]) The tax rate for petrol is the lowest in the EU while the rate for diesel is virtually equal to the EU minimum (European Commission, 2016c).
([9]) 0.3 % of GDP versus 1.6 % in the EU in 2014 (European Commission, 2016a).
(10) The Gini coefficient is an index with a value between 0 (i.e. all people earn the same income) and 1 (i.e. one person receives all the income in an economy). That is, higher values indicate higher inequality
(11) For example, the exchange of information between the Ministry of the Interior and the Customs Agency by access to automated information systems (Ministry of Finance – Bulgaria, 2016).

4.2. FINANCIAL SECTOR

Risks of imbalances in the financial system are partly linked to unsound business practices. About a fifth of the system is domestically owned, where shareholding is usually concentrated in one or a few individuals or business groups ([12]). If subjected to the business interests of their owners, these institutions may be vulnerable to concentration and operational risk through imprudent management, as well as related-party and connected exposures. Where these feature in systemically important institutions, the vulnerability could affect the entire financial system.

The failure of Corporate Commercial Bank demonstrated that unsound business practices may be hard to detect in the normal supervisory process (See European Commission, 2015a). To address this risk, the authorities undertook an asset quality review and stress tests of the banking system, a balance sheet review and stress tests of the insurance funds, and a review of the assets of private pension funds.

4.2.1. BANKING SECTOR* ([13])

On aggregate, the financial soundness of the banking system strengthened in 2016. Liquidity continued improving with the liquid assets ratio at end-2016 (well above the minimum requirement) growing significantly relative to its level following the market tensions in June 2014. The average return on assets reached 1.6 % in 2016, the highest in recent years. Aggregate profit increased by 40.5% year-on-year and amounted to EUR 645mn. The increase was driven mainly by higher net interest income, and lower administrative and impairment costs. The profit remains one of the highest since the global financial crisis, also due to favourable one-off factors. The latter reflected a strong decline in corporate and household NPLs in the final quarter of the year, owing also to NPL sales on the secondary market. Despite the positive aggregate figures, the banking sector remains relatively heterogenous with some institutions performing significantly worse than the average. Ongoing consolidation contributes to rising cost efficiency, corporate governance and the overall strengthening of the sector. Two major deals, involving the Greek-owned part of the system, were concluded in the past two years. Further deals, involving smaller banks, are also in the pipeline.

Asset quality review (AQR) and stress tests (ST)

The AQR of the banking sector had a wide scope in terms of bank and asset coverage. The AQR covered all banks incorporated in Bulgaria. Foreign branches were not included. The review extended to banks the total balance sheet of which amounted to EUR 43 billion as of 31 December 2015, or 96% of the banking system. For individual banks, the coverage of risk-bearing assets, ranged from just below 40 % to nearly 95 % depending on the risk profile and level of heterogeneity of the banks' assets (BNB, 2016b and 2016c). The wide scope of the exercise provided a very good basis for a comprehensive screening of the sector. The AQR methodology was largely based on the one established by the ECB in the 2014 Comprehensive Assessment of the euro area banks. ([14])

The AQR and ST exercises were carried out by the Bulgarian National Bank. Unlike other country-specific banking reviews in the EU, the Bulgarian AQR/ST exercise was led by the banking supervision department of the Bulgarian National Bank (BNB), with the external consultant Deloitte Bulgaria having an advisory, coordinating and quality-assurance role. While the strong role of the supervisor allows for more precise targeting, this may have come at the expense of the independence of the exercise. Following established international practice, the final publication provided results on a bank-by-bank basis. However, the level of detail provided did not match that of previous exercises across the EU, which to some extent diminished the effort to achieve transparency.

While the corrections from the AQR were not significant on aggregate, for two banks they were substantial. Aggregate adjustments

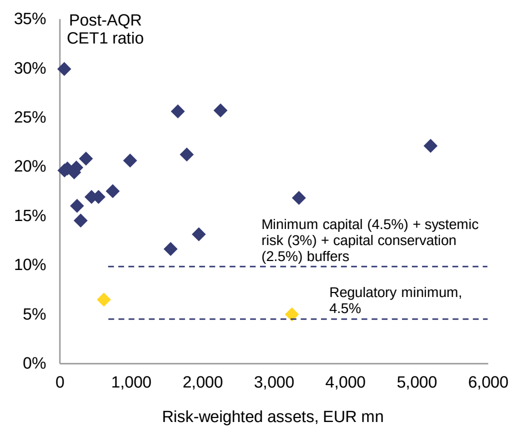
(12) The majority of the financial system is owned by large international institutions, allowing it to import management and governance practices from their parents.

(13) An asterisk indicates that the analysis in the section contributes to the in-depth review under the MIP (see Section 3 for an overall summary of main findings).

(14) Deviations from this methodology, generally in view of the different size and nature of banking activities in Bulgaria relative to the euro area, were published by the BNB.

amounted to EUR 340 m, or 1.3 % of the risk-weighted assets of the participating banks. These mainly reflect adjustments to banks' corporate portfolios, in particular the reclassification of some EUR 1.9 bn of exposures as non-performing ([15]). Additional adjustments were made in the residential real estate portfolios and held assets. Corrections were heavily concentrated in two domestically-owned banks – First Investment Bank (a systemic bank) and Investbank ([16]), which accounted for 79 % of the corrections. As a result, the CET1 capital adequacy of the two banks fell to 5 % and 6.5 % respectively, indicating that they would need to replenish their capital buffers (see Graph 4.2.1).

Graph 4.2.1: **Post-AQR capital adequacy, % of risk-weighted assets**

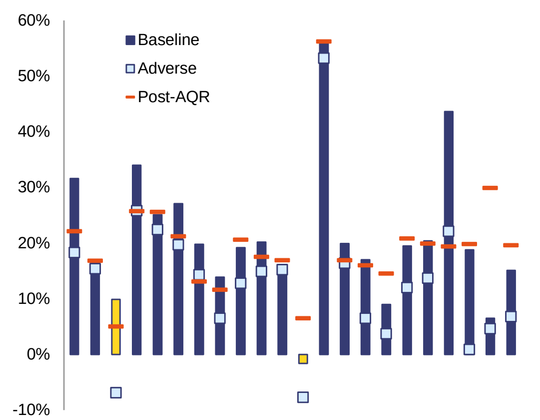


Bulgarian Development Bank (56.2 %, 617mn) omitted for presentational reasons.
Source: BNB (2016b and 2016c)

The design of the stress tests had some shortcomings. Parameters derived from the AQR served as the starting point for the stress tests and were applied to guidelines that were centrally provided by the project managers. Therefore, the stress tests were not strictly bottom-up, which would have required banks to develop their own internal models for projecting their capital positions. In this regard, the established international practice for such exercises is to carry out also bottom-up stress tests. Top-down stress-tests are well suited for retail loan portfolios which are more homogeneous. However, this approach is less accurate for more heterogeneous loan portfolios, such as corporate and commercial real estate. For the banks with significant corporate activity, this may have underestimated important risk contributors. With the benefit of hindsight, the macroeconomic scenarios of the stress tests were conservative (for more details, see BNB, 2016a).

The stress test results indicated that the system is robust on aggregate, but with pockets of weaknesses. The results of the stress test varied significantly across banks, attesting to differences in their business models and in the strength of their portfolios. In the baseline scenario, the aggregate capital adequacy of the banking system improved by 2018, driven by the results of the larger banks (see Graphs 4.2.2 and 4.2.3). However, 12 out of the 22 banks, including two of the biggest five, saw a decline in their capital ratios indicating difficulties with generating profits. In the adverse scenario, all banks had lower capital ratios by 2018 than in the baseline scenario, ranging from below 1 % to over 20 % of their respective risk-weighted assets (RWA). The majority of the impact stemmed from credit risk shocks, accentuating the banks' vulnerability to the quality of their loan books. This underscores the importance of maintaining high capital buffers, beyond the minimum requirements, in particular for those institutions that showed weaknesses.

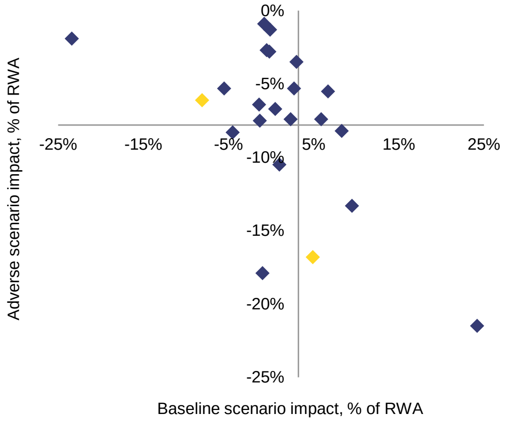
Graph 4.2.2: **Bank-by-bankCET1 capital adequacy ratios in 2018 according to stress test scenarios**



Order of banks corresponds to BNB publication
Source: BNB, European Commission calculations

(15) Around 5 % of in-scope assets and 9 % of reviewed assets.
(16) FIB is the largest domestically-owned bank (9.6% market share at end-2016) and Investbank is the third largest (2.1% market share).

Graph 4.2.3: **Impact of baseline and adverse scenario of stress tests on capital**



Axes intercept at aggregate impact for the system.
Source: BNB, European Commission calculations

The effectiveness of the exercise hinges crucially on adequate implementation of follow-up measures. Such measures would improve the robustness of the institutions and the credibility of supervision. The two banks that need to replenish their capital buffers on the basis of the AQR results received detailed instructions to do so by April 2017. Actions include de-risking of assets, reducing risk-weighted assets, disposing of foreclosed and held assets, optimising costs and raising fresh capital. Institutions that showed a significant decline of their capital adequacy in the stress tests were asked to enhance their policies, procedures and internal rules and to review their business plans in order to enhance resilience to shocks. The results of the stress tests will be incorporated into the supervision authority's annual review and evaluation process, which may lead to additional measures. Any specific recommendations arising from this process, however, have not been made public.

4.2.2. NON-BANKING FINANCIAL SECTOR *

Reviews of private pension funds and insurance companies

Independent reviews examined the health of the non-bank financial sector. As part of its plan to address the excessive macroeconomic imbalances, the government mandated the non-bank supervisor, the Financial Supervision Commission (FSC), to organise independent reviews of the balance sheets of insurance companies and assets of private pension funds. Additionally, stress tests of the insurance market were done on the post-review balance sheets to provide the supervisor with more information on potential risks.

To ensure their credibility, the reviews were ambitious in scope and design. The check-up covered the entire pension funds and insurance markets and included group-level assessment for insurance firms. An independent private sector consultant was hired to design the methodologies and project-manage the process. A steering committee comprised of representatives of the authorities and EU bodies was appointed to guide the consultant in its work. ([17]) Independent external reviewers were hired by the reviewed entities to perform the field work.

The reviews were completed to a high degree of independence and transparency. The reviews and stress tests were finalised in January 2017 and the summary and company-specific results and follow-up actions published on 3 February 2017. The level of detail of the publication, including individual company results and recommendations, increased transparency and credibility of the work performed. The published results also provide supporting evidence to the supervisor to tackle any remaining issues not covered by the initial follow-up actions. Publication of the stress test results would also further increase transparency. The report also provided recommendations by the independent reviewers and the project manager on legislative changes aimed at harmonising the Bulgarian legislation with international standards (for more details, see EIOPA, 2017).

Results and follow-up measures

The insurance sector is overall well-capitalised, but some capital shortfalls were identified. Thirteen of the fifty insurance companies, with around a quarter of the market share, did not meet the capital requirements on the cut-off date of the review, 30 June 2016. Seven of these companies undertook measures to cover their financial needs

(17) The steering committee included the FSC and EIOPA as voting members with equal weight and observers with consultative powers from the EC, ESMA, Ministry of Finance and the national central bank.

before publication of the results and are considered by the supervisor to be no longer in need for supervisory action. The remaining ones have three months to comply with the requirements, while two insurers will have to do this until the end of 2017, taking advantage of the transition period allowed for the change from Solvency I to the Solvency II regime. Third-party verification of the follow-up measures and their implementation would further boost confidence in the sector.

Issues related to certain reinsurance contracts and group-level supervision, remain to be tackled. According to some reviewers, reinsurance recoverables are not properly valued on the reviewed undertakings balance sheet ([18]). If confirmed, the resulting adjustments could have a substantial impact on the capital of some companies and may require further follow-up actions. As the issue was identified late in the review process, the share of companies that would be impacted by it remains to be confirmed, but could be substantial in the view of the supervisor. Certain insurance receivables may need to be impaired leading to further negative adjustments. Group-level supervision was another important issue highlighted by the review. Two of the insurance groups, Eurohold and Armeec Group, did not complete the review following disputes over data availability and scope of the review. Armeec at the individual level and the subsidiaries of Eurohold were among the thirteen entities with capital shortfalls. Only a full group-level assessment would allow the supervisor to appropriately identify all risks. In addition, regarding different valuations of the same financial instrument across insurance undertakings, the supervisor only retained the least conservative approach. A more balanced approach could have shown potential shortcomings in the valuation of balance sheets overall, while still ensuring consistency.

The private pension funds' assets were subject to only minor adjustments. The adjustments recommended by the reviewers were 0.3% of the total pension funds' assets, ranging between 0 and 3.4% for the individual funds. The adjustments were mostly from overvaluation of investment properties and corporate bonds. However, the reviewers highlighted important issues for some of the funds.

Risks to the long-term benefits of pension fund account holders remain to be addressed. These risks include concentration of assets on the traded and non-traded domestic market, the low liquidity and trading volume of the domestic stock exchange and the lack of sufficient information on exposures to related parties. All of these risks could have a significant impact on the funds available to account holders during the pay-out phase, which will start in earnest around 2020. Some funds were found not to have proper tools to identify and monitor related parties. Complex ownership and cross-ownership structures were also identified in some cases. Compliance with the legal requirements is necessary but may not be enough to ensure the best interest of pension fund account holders. A thorough examination and elimination of those risks remains a key challenge for the supervisor.

4.2.3. FINANCIAL SECTOR SUPERVISION*

Supervisory responsibilities are divided between the BNB and the FSC but close cooperation is essential. While the BNB is responsible for the banking sector, the FSC is in charge of insurance companies, private pension funds and the capital market. Overall, the authorities have undertaken a series of measures aimed at improving financial sector supervision. Nevertheless, close cooperation between the supervisors remains vital, especially to ensure appropriate group-level supervision for business groups operating across the financial market.

The BNB has achieved some progress with its plans to reform banking supervision. Despite some delays, which also reflect the significant resources allocated to the AQR/ST exercises, the BNB Plan to ‘Reform and Develop Banking Supervision’ is progressing (BNB, 2016d). The planned review under the Financial Sector Assessment Program (FSAP) by the IMF and the World Bank is to provide further guidance on improving banking supervision, while also reviewing other parts of the financial system. The main challenges for banking supervision going forward include dealing with related-party and connected exposures as well as ensuring a

(18) For details see the detailed final report on EIOPA's website.

conservative approach towards hard-to-value assets ([19]).

Non-bank financial supervision mainly follows a compliance-based approach without sufficient focus on risks. Moving to a more risk-based supervision would require the supervisor to develop a comprehensive system of risk characteristics on both assets and liabilities, including, in the case of insurers, risks associated with the insurance contracts sold. This would also imply an objective evaluation of the adequacy of firms' risk management. This entails understanding and challenging the data, having a forward-looking perspective and taking appropriate action to mitigate and/or minimize current and future problems (i.e. focusing not only on what went wrong but also on what can go wrong).

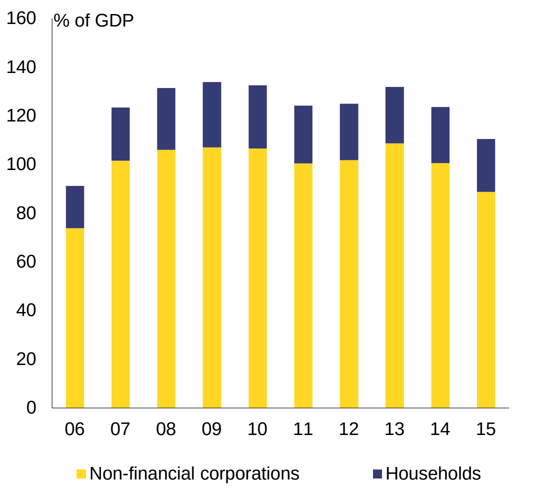
The available human, financial and technical resources may be insufficient to support a new supervisory approach. In the early stages of organising the non-banking sector reviews, the supervisor's organisational structure showed certain weaknesses in terms of the responsibilities of the chair, deputy chairs and the governing board ([20]). Those weaknesses have created uncertainty among market participants and threatened to undermine the review process. Transparency in the decision-making process has been lacking in some instances, raising concerns about operational independence as regards political interference or inappropriate influence from the financial sector itself.

The legal framework, under which the non-banking supervisor operates, appears inadequate to allow for a high-quality market oversight. The current legislation provides incentives for the supervised entities to take legal actions against the supervisor's decisions. This leads to the suspension of supervisory action until a final decision is reached by the court, after all possible ways of appeal have been exhausted by the supervised undertaking. Given the shortcomings of the judicial system (see Section 4.6.3), this legal process often invalidates the supervisory decision regardless of the final court verdict. Additionally, it drains supervisory resources from the day-to-day operation of the FSC. The weak judicial system also disincentivises conservative supervisory action due to the higher risk of personal liability when defending against claims for damages brought by the supervised entities.

4.2.4. CORPORATE INDEBTEDNESS AND DELEVERAGING*

The orderly deleveraging process is continuing, but high corporate debt remains a concern. The debt of non-financial corporates (NFC) has been declining since 2013. In 2015, it decisively decreased by 11.7 percentage points (pps.) to around 89 % of GDP especially on the back of reduced cross-border intra-company loans by a very few NFCs and strong economic growth (Graph 4.2.4). A slow and orderly deleveraging of household debt has also continued in 2015 with a 1.4 pps. drop to 21.7 % of GDP (European Commission, 2015c).

Graph 4.2.4: **Private debt breakdown**



Source: European Commission

(19) Hard-to-value assets include exposures to real estate or other assets whose value is difficult to establish either due to their specific nature (meaning there are few similar assets to benchmark against) or to the lack of an active market. This may create a mismatch between the value of the asset on the balance sheet and its actual value, posing a risk for the capital adequacy of a bank. Moreover, the management of such assets is usually costly. As a result, balance sheet risk may even exceed the invested amount.

(20) E.g. for replacing members after mandates have expired, ensuring swift decision making, guaranteeing full independence from the undertakings supervised or adopting consistent positions throughout the review process.

Box 4.2.1: **Corporate Indebtedness and Non-performing Loans (NPLs)**

The NPL ratio remains high in spite of the recent positive trend. After deteriorating significantly in the aftermath of the 2009 recession, asset quality in banks has been on a slow recovery path. NPLs as a proportion of all loans gradually improved to [12 %] at end-2016, still well above the EU-average. The problem is somewhat mitigated by high capital buffers, strong loan-loss provisioning and ample liquidity in the banking system (see section 4.2.1). In addition, the stock of NPLs as a percentage of GDP (8.4 % in 2016) is smaller compared to Member States with high NPL ratios due to the relatively small size of the banking sector.

The quality of loans to non-financial corporations (NFCs) remains a concern. The ratio of corporate NPLs is still significantly worse than the aggregate, standing at [16.3 %] at end-2016. The stock of corporate NPLs stood at BGN 5.4bn (EUR 2.76bn), over 90 % of which represent legacy exposures. Most of these are loans to large corporates, which banks have not been able to work out or dispose of. Even if the ratio of bad loans is trending down, the additional stock uncovered by the AQR (see Section 4.2) suggests that addressing the high corporate NPL stock will remain an obstacle for the banking system and the economy as a whole.

A number of obstacles hinder the decline of the corporate NPL stock. The insolvency framework reform has not yet been adopted by parliament, preventing banks from utilizing new procedures such as out-of-court debt restructuring or fast track court approvals of pre-agreed restructuring agreements (see section 4.6.3). While the secondary market for non-collateralised consumer NPLs is relatively active, partly due to the AQR, in other segments it remains dormant, reflecting a still-sizeable price gap. However, an inefficient insolvency framework and an incomplete credit registry, prevent a swift closure of the price gap. A stronger internal restructuring capacity of banks (including on related party and connected exposures), as well as a more liquid market for sales of SME and mortgage NPLs could facilitate writing-off the NPL stock and help the restructuring of viable businesses.

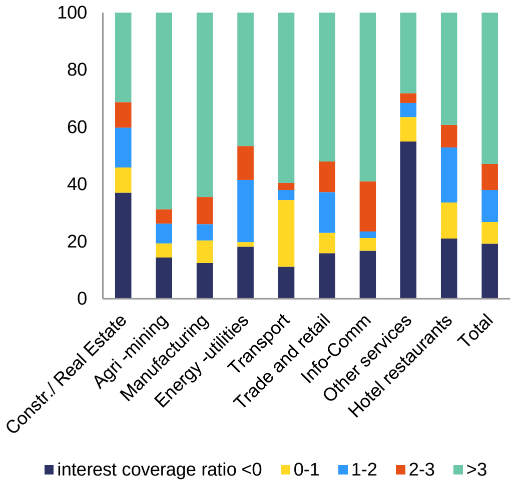
A high NPL level has a negative impact on both the banking system and the overall economy. The high rate of NPLs can have a negative impact on the real economy. It may limit investment and consumption and constrain the recovery of asset prices (IMF, 2015). While most banks are willing to lend at competitive rates to high quality clients, they are less likely to lend to debtors, especially in industries still burdened by high levels of indebtedness. Thus, lower NPL levels may prompt banks to become less risk averse, which could potentially result in higher credit growth and private sector investment. Overall, lower levels of corporate NPLs on banks' balance sheets as well as a continuing deleveraging of NFCs could contribute to reduce the remaining fragilities of the banking system and to fostering sustainable medium-term economic growth. Cross-country experience in Europe has shown that prudential NPL measures such as time limits or write-down targets can accelerate banks' NPL work out ([1]).

([1]) IMF (2015). See also the work of the SSM NPL working group.

Persistently negative inflation and high leverage have been challenges for NFCs. Declining prices have put pressure on corporate revenues and their ability to service outstanding debt. While annual inflation remained in negative territory in 2016 with -1.3 %, the projected pick up in 2017 to 0.8 % by year-end (see Section 1) would help NFC revenues. At the same time, high leverage, despite a decreasing trend in recent years, continues to hamper the debt servicing capacity of many NFCs. Furthermore, profitability remains weak in many sectors, especially those (such as construction/real estate) which were significantly affected by the crisis (Graph 4.2.5). The high degree of SOE contingent liabilities adds to corporate indebtedness challenges (see Section 1).

Lowering corporate indebtedness is constrained by a number of factors. The pace of private sector deleveraging and NFC's still high level of debt continue to be hampered by limited progress in reforming the insolvency framework (see Section 4.6.3). A functioning insolvency framework, a deeper secondary market for NPLs, as well as assertive supervisory efforts could be beneficial for banks to reduce their still high corporate NPL levels (see Box 4.2.1).

Graph 4.2.5: **Interest coverage, distribution by sector, 2015**



Note: EBITDA (earnings before interests, taxes, depreciation and amortisation) divided by interest charges
Source: Orbis, European Commission calculations

4.3. LABOUR MARKET, EDUCATION, HEALTH AND SOCIAL POLICIES

4.3.1. LABOUR MARKET DEVELOPMENTS

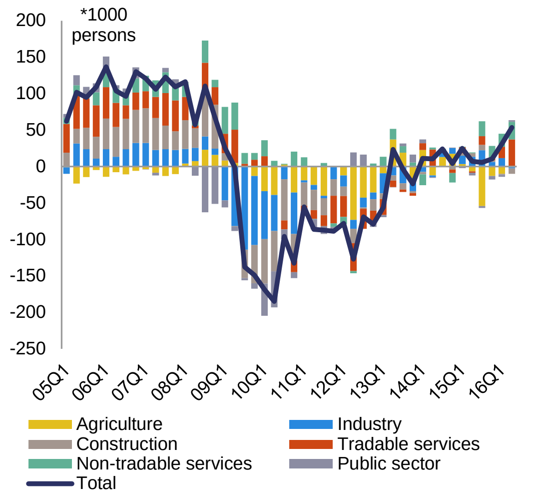
Overview and challenges

The labour market is slowly improving, but it still faces structural challenges (see Section 1 for recent trends). Bulgaria faces adverse demographic developments, as well as structural problems such as high long-term unemployment and inactivity, and the limited inclusion of young people in the labour market. Labour mismatches of skills, sectors and regions, insufficiently targeted active labour market policies (ALMPs), limited provision of quality education and social disparities represent further challenges.

A sectoral shift in employment is only progressing slowly. Low skilled jobs in agriculture and construction are being lost, while most new jobs are being created in services (Graph 4.3.1). This sectoral shift is making only a weak contribution to economic growth, as employment in services increased mostly in lower productivity sectors. Although it is declining, employment in agriculture remains high (around 19 % versus 5 % in the EU for 2015) and conceals hidden unemployment. A further sectoral shift in employment to high productivity sectors would be paramount for income convergence.

Companies report difficulties in hiring people with the right skills but also unskilled workers (see Manpower Group, 2016, and European Commission, 2016d). Some of these difficulties may relate to the declining working age population (see Section 1), unattractive working conditions and higher wages abroad. The overall skills level has been improving given the increase in tertiary education attainment rates to 32.1 % in 2015 versus the EU 2020 national target of 36 %. However, the participation in lifelong learning is among the lowest in the EU, therefore limiting the opportunities for re- and upskilling. The low level of digital skills (see Section 4.4 and European Commission, 2015b) together with low labour mobility might exacerbate regional and skills mismatches in the labour market. An increase in early school leaving is an additional concern.

Graph 4.3.1: **Employment by sector, year-on-year changes**



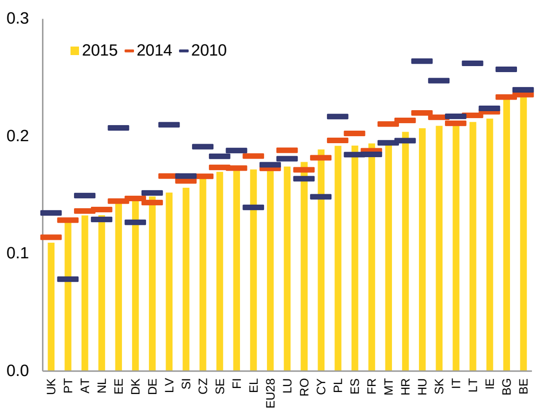
Source: European Commission

Different types of mismatches contribute to weak labour market outcomes in Bulgaria. Employment and unemployment rates diverge strongly across education levels, which points to substantial skills mismatch ([21]) (See Graph 4.3.2). While the upskilling of the population means this mismatch is gradually declining, it remains among the highest in the EU. Considerable rural-urban employment and unemployment rate gaps ([22]) point to a regional labour market mismatch. ALMPs to address this challenge are being applied by Bulgarian authorities, but their scale is still limited. There are also sectoral mismatches, indicating weak mobility across sectors. For instance, a high proportion of the unemployed formerly worked in the construction sector, while shortages are increasingly being felt in the manufacturing sector. The different types of mismatches suggest further scope for improving the effectiveness of ALMPs.

(21) Unemployment among individuals with tertiary education stood at 4.0 % in 2015, below the EU average. Unemployment among individuals with medium and low education was twice and six times this level, respectively.

(22) The rural-urban unemployment rate gap (age group 15+) is one of the highest in the EU28 and has been increasing. It stood at 92 % in 2015, as compared to -10 % in the EU28.

Graph 4.3.2: **Relative dispersion of employment rates by education level, 2010, 2014 and 2015**



Three education levels are considered: those with low education (less than upper-secondary), medium education (upper secondary or post-secondary) and those with tertiary education.
Annual average based on the average of four quarters.
Source: European Commission

Despite the improved labour market, vulnerable groups still face employment challenges. Particularly affected are low-skilled workers (with a much higher unemployment rate), those working in agriculture (many of whom are unremunerated family workers), and in general those working in rural areas. The employment prospects for Roma remain precarious.

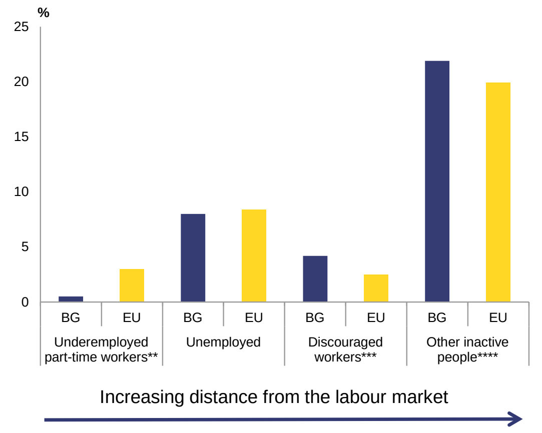
Minimum wage decisions are not based on a transparent mechanism that takes into account economic and social fundamentals. This generates a risk of not ensuring a proper balance between the objectives of supporting employment and competitiveness, while safeguarding labour income. Recent progress in designing a mechanism for setting the minimum wage has been rather modest, as the criteria to be used have been agreed in principle by the social partners, but not their weight or application. The uncertainty created by the lack of such a mechanism adversely impacts the predictability of business conditions.

Failed negotiations on minimum social security thresholds (MSSTs) show the system's shortcomings. Failed negotiations on the MSSTs, which had been introduced in 2003 to combat wage underreporting, highlight a deteriorating social dialogue. Negotiations on the MSSTs broke down after employers refused to participate in the discussions. Trade unions and the government maintain their support for the MSSTs. Following the failure of the negotiations, the government decided to apply to 2017 the 2016 MSSTs levels. Some MSSTs, however, increased further due to the increase of the minimum wage in 2017, which acts as a floor for the MSSTs thresholds.

Long-term unemployment

Bulgaria has the potential to tap into its relatively large inactive population. The proportion of the inactive population is above the EU average, making it an important potential contributor to the labour force (Graph 4.3.3). Compared to the EU average, the inactivity rate for men is disproportionally higher than for women, and particularly so for the low-skilled.

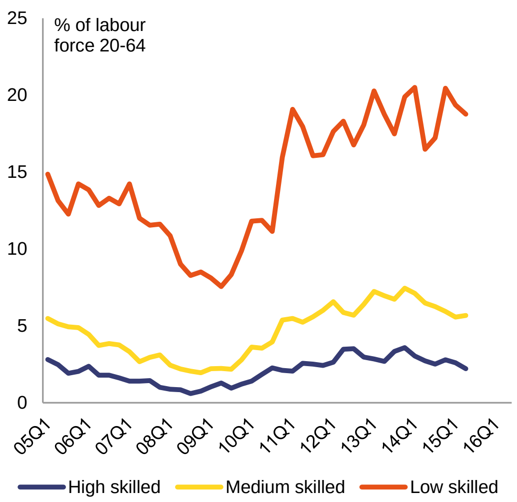
Graph 4.3.3: **Increasing distance from the labour market ***



* People from 20 to 64 years as percentage of total population in q2 2016
**Part-time workers who would like to work additional hours and are available to do so.
*** Persons available to work but not seeking
**** Inactive people on top of discouraged workers
Source: European Commission

The share of long-term unemployment in total unemployment remained about 60 % in 2016. Long-term unemployment (LTU) is especially high for the low-skilled (Graph 4.3.4), which face significant labour market integration challenges. The average rate of participation of the registered long-term unemployed in active labour market policies is also very low (3.9 % in 2014), although it started to increase following outreach measures by the Employment Agency.

Graph 4.3.4: **Long-term unemployment rate by educational attainment**



Source: European Commission

Young people continue to face employment challenges. The rate of young people not in employment, education or training (NEET) remains well above the EU average, despite the implementation of the Youth Guarantee. In addition, a large majority of NEET remain inactive, thus indicating structural problems in the inclusion of young people in the labour market or in education (Eurofound, 2016). The NEET rate among Roma is very high, particularly for girls. The Youth Guarantee is being implemented. Measures so far have focused on young people with secondary and tertiary education and had only a limited impact on the low-skilled. Recent measures by Bulgarian authorities seem to have started addressing this challenge. The Youth Guarantee is further hampered by very low registration rates with the Public Employment Services.

The impact of parenthood on female employment is high ([23]). This is mainly due to the unbalanced uptake of leave arrangements between women and men, and low provision of childcare Poor families in rural areas are particularly affected (World Bank, 2017). The recently adopted reform to introduce financial incentives for women who return earlier from parental leave may help to increase their employment.

Roma are still one of the most disadvantaged groups in the labour market. A survey showed that only 26 % of Roma aged 20-64 reported to have engaged in 'paid work', while 55 % of Roma reported being unemployed (FRA, 2016). The employment prospects of Roma remain precarious, mainly due to their low qualifications, social exclusion and discrimination (FRA, 2016). According to the Ministry of Labour and Social Policy, the inclusion of Roma in professional trainings is also very low. Increasing the employment prospects of the Roma population remains essential for economic growth especially in light of labour force shortages and an increasing share of Roma in the labour force.

Labour market policies

Poorly targeted active labour market policies mainly focus on demand-side measures. Direct job creation continued to account for the bulk of active labour market policies spending with 74 % in 2014. Supply-side measures remain underfinanced. In particular, training programmes for the unemployed are insufficiently developed and target predominantly the unemployed that are easier to activate.

Labour force participation is still hampered by high undeclared work. Informal employment includes work without a formal contract, but also under-reported remuneration ('envelope wages') or evasion of social security contributions. Available information suggests that undeclared work has recently increased again ([24]).Preventative measures to tackle undeclared work are limited.

The public employment services continue to pursue targeted reforms. The reform of the public employment services has been supported by technical experts from several EU Member States. Enhanced IT capability, increasing use of call-centre services, and closer coordination between public employment services and social service providers are being explored.

Integrated employment support and social assistance centres are being developed. Bulgaria initiated a pilot project to introduce integrated

(23) There is a 14.1 pp. difference between the employment rates of women with at least one child under six and women with no children.

(24) The Labour Force Survey shows an increase in the number of people who have identified themselves as being hired without a contract (from 37500 in 2012 to 50900 in 2015).

Centres for Employment and Social Assistance and plans to add 8 new centres in remote areas to the existing 65. Many unemployed people have already been serviced by these centres. The working methods between the Employment Agency and the Agency for Social Assistance have improved. However, there is a limited provision of social services to support the long-term unemployed taking a job, as local municipalities — the main social service providers — have not been involved in the pilot.

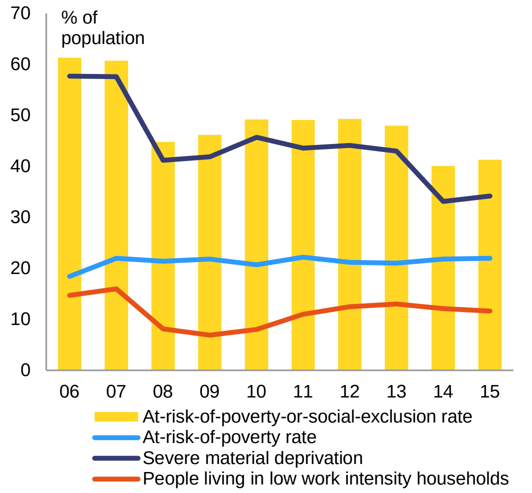
Several measures have been taken to improve labour market participation. Support for changing the place of residence was introduced to enhance labour market mobility ([25]). One day contracts, aimed at combating undeclared work in agriculture, are being more extensively used by employers. In addition, measures to lower the NEET rate were continued. Specific measures were also maintained to address the long-term unemployment, including subsidised employment and literacy and qualification courses.

4.3.2. POVERTY AND SOCIAL EXCLUSION

Poverty

The at-risk-of-poverty-or-social-exclusion rate remains the highest in the EU. The rate reached 41 % in 2015, due to a worsening of both monetary poverty ([26]) and severe material deprivation (Graph 4.3.5). For instance, in 2015, monetary poverty was highest among the unemployed with 53.3%. Income inequalities are also very high and increasing (see Section 1).

Graph 4.3.5: **At-risk-of-poverty or social exclusion rate and its components (AROP, SMD, LWI)**



Source: European Commission

Poverty and social exclusion are particularly high among the Roma. The at-risk-of-poverty rate of Roma is approximately four times as high as for the overall population. This compares with a set of peer countries (RO, CZ, HU, SK), where the rate of poverty for Roma ranges from three- to more than six-times higher than for the general population (FRA, 2016) ([27]). Monetary poverty is particularly high among the Roma, which has an impact, among other things, on their dire housing situation ([28]). The intergenerational transmission of poverty is a further concern. The implementation of the National Roma Integration Strategy is lagging behind at the national and local levels, in particular the coordination of actions across sectors.

Poverty among the elderly has abruptly worsened. Following a continuous decline over the past 5 years, the at-risk-of-poverty rate of the elderly (65+) increased sharply to 31.7 % in 2015. Elderly women are at a particularly high risk of

(25) The unemployed are reimbursed for rent, kindergarten and internet fees when they move more than 50 km away from their place of residence to take up a job.
(26) People are considered at risk of monetary poverty when their disposable income after social transfers is below the at-risk-of-poverty threshold. The EU 2020 national target envisages a reduction of monetary poverty by 260,000 people as compared to the 2008 baseline. In 2015, there were 46,000 less people in monetary poverty than in 2008.
(27) The 2015 survey by the European Union Agency for Fundamental Rights (FRA) improved the sampling and weighting methods developed for the 2011 survey. As such, the results are a more accurate representation of the situation of Roma in the countries covered. The indicators used are a close approximation to those applied in standard European surveys (EU SILC, EU LFS) but full comparability was not intended.
(28) E.g. 65 % of housing lacks basic sanitation, 19 pp. above the average of the nine countries covered by the FRA survey.

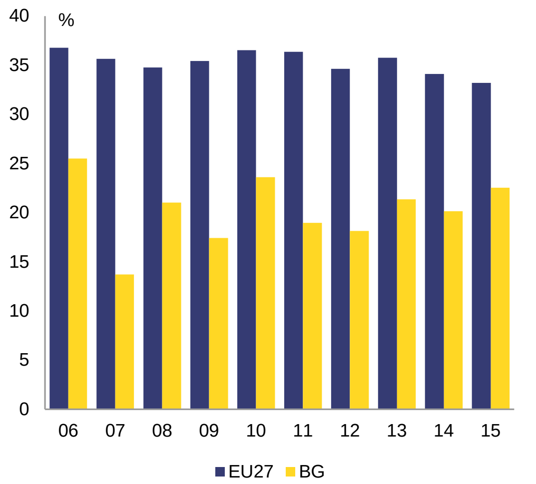
poverty or social exclusion given their typically lower pension contribution period.

On a positive note, the relative poverty situation of children has improved. The risk of poverty or social exclusion for children dropped to 25 % in 2015. However, it remains one of the highest in the EU and is strongly linked to the educational level of the parents.

Social policy

The social transfer system is limited by its low adequacy and coverage. Bulgaria has one of the least-effective social transfer system in the EU and one of the lowest levels of social transfers (Graph 4.3.6). The government spent just 0.2 % of GDP in 2015 on monthly social benefits and the heating allowance, which is the core of the minimum income scheme. The eligibility rules are very restrictive, leaving many poor families without support. The limited coverage of the minimum income also reduces access to health insurance for poor people who rely on the state for access to healthcare services.

Graph 4.3.6: **Reduction in the risk of poverty after social transfers (excluding pensions)**



Percentage difference between the at-risk-of-poverty rate before and after social transfers
Source: European Commission

The general minimum income has not been updated since 2009. This has eroded the protection capacity of social benefits and contributed to increased inequality in the country. A lack of a predictable mechanism for regularly revising the social benefits undermines their adequacy over time and creates a risk of large unbudgeted ad hoc revisions.

Limited measures have been taken to increase the coverage and adequacy of minimum income schemes. To increase the coverage of the minimum income schemes, people can now apply for benefits irrespective of the place of residence. Earnings from one day and dual education contracts will be excluded from the means testing. A new benefit for children with disabilities has been introduced as from 2017. Heating benefits for the 2016/2017 winter season were increased to compensate for the rising price of electricity. However, these measures do not fundamentally change the system nor allow for the benefits to be updated in a predictable way which would allow them to keep their safety net function.

Social services do not fully meet the needs of the most vulnerable groups. These groups include Roma, people with disabilities, or people living in rural areas. The lack of support from the social services often hinders the employability of the vulnerable. Limited coordination between the social and health parts of long-term care systems weighs down on the quality and capacity to provide services.

Access to adequate and affordable housing remains a challenge for vulnerable people, despite some improvements. Severe housing deprivation for poor people is more than twice the EU average and access to social housing is limited. Bulgaria has the highest proportion in the EU of those who cannot keep their lodgings adequately warm.

Legislative changes for social services are being prepared. A new Social Services Law is under preparation, which aims to better integrate services and budgets and to introduce quality standards. The authorities are also reforming the disability system to separate the medical and employability assessments of disabled people. Deinstitutionalisation has advanced for children but is lagging behind for adults (See European Commission, 2016e).

4.3.3. EDUCATION AND SKILLS

A high proportion of students do not possess an adequate level of basic skills. The 2015 OECD Programme for International Student Assessment (PISA) found high levels of underachievement in basic skills ([29]). The proportion of under-achievers in all three tested subjects is among the highest in the EU and around double the EU averages. The education system is highly inequitable, with around 60 % or more of students from the poorer socioeconomic quarter failing to achieve the minimum level of skills in PISA (compared to 17-20 % in the top socio-economic quarter). Underachievement is fairly high across the socioeconomic spectrum, and the proportion of top performers is low. This shows the important role that the ongoing education reform may play in improving quality and competence-based learning.

Insufficient provision of quality education and low funding remain major challenges. To increase quality, the school curricula are being updated and plans are being developed to set up school performance indicators. In addition, all schools are to be inspected every 5 years by the newly established National Schools Inspectorate. There is not yet a methodology on school financing, based on performance and supporting equitable outcomes. Spending on education remains below the EU average with 4.1 % of GDP in 2014 (versus the EU average of 4.9 %).

Performance-based funding may improve the quality and labour market relevance of higher education. In 2016, 29.8 % of public funding for higher education was allocated on the basis of the quality and labour market relevance of study programmes. This proportion is expected to reach 60 % by 2020. A total of 32 priority fields including science, technology, engineering and mathematics programmes will receive additional funding. The financial sustainability of higher education institutions is important in view of the planned high proportion of performance-based funding. Increasing quality in school education and strengthening career guidance for secondary students will be instrumental to the success of this reform.

Early school leaving is rising with consequences for the labour market. Early school leaving increased to 13.4 % in 2015 (above the national EU 2020 target of 11 %) amid high regional variations and urban-rural disparities. It is particularly high among Roma ([30]). Socioeconomic factors, educational difficulties and family reasons are key drivers of early school leaving. EU funds are used to provide second chance education, literacy courses and qualifications to adults who dropped out from school. A strategy to tackle this phenomenon is under implementation.

Roma are particularly exposed to educational poverty and face barriers to equal educational opportunities. The participation of Roma in early education remains low. This leads to poor language skills and educational performance, increasing their risk of drop-out. Roma segregation in education, partly stemming from uneven distribution of Roma population in the country, remains a further challenge in accessing quality education ([31]). The Pre-School and School Education Act prohibits the formation of separate classes based on ethnicity, but monitoring and implementation remains challenging. National and EU-funded measures currently in place include scholarships and extracurricular activities for Roma pupils.

The quality of vocational education and training remains low. EU funding is supporting the development of vocational education and training systems to improve, *inter alia*, quality assurance and guidance. The authorities also plan to deepen the partnerships between vocational education and training and businesses. Following the Swiss and German models, Bulgaria has introduced apprenticeships (dual trainings) on a pilot basis.

(29) The Pisa study (OECD, 2015) found that 42 % of 15-year olds are functionally illiterate, 42 % have an insufficient level of skills in mathematics, and 38 % are low-achievers in science.

(30) A recent survey by the FRA estimates that 67 % of Roma are early school leavers, about the average for the nine countries covered (FRA, 2016).

(31) 60 % of Roma children aged 6-15 attend schools in which all or most students are Roma, according the FRA (FRA, 2016). Using a different methodology, the Roma Inclusion Index 2015 estimated that 26 % of Roma children receive education in de facto segregated schools (Roma Decade, 2015).

4.3.4. HEALTHCARE

Low public health care spending is a challenge. Public spending on healthcare remains very low, covering only 51.6 % of total health expenditure. The EU average is 76.2 %. Against this backdrop, health is one of the top priorities in the 2017 budget.

Low coverage of health insurance restricts access to healthcare. According to the latest available data, only 88 % of the population is covered by public health insurance (only 45 % of Roma according to FRA, 2016) (OECD/EU (2016); EU: 98 %), compromising the efficiency of the system ([32]). Overall, the percentage of Bulgarians reporting unmet medical needs because of cost, distance and waiting time remains well above the EU average. Moreover, some long-term unemployed only have access to hospital care financed by the state, while the prevalence of out-of-pocket payments and the low public coverage of outpatient medical services make it difficult for some people to access healthcare. Access to pharmaceuticals is also difficult in parts of the country.

The hospital-centred health system has scope for improvement. The ratio of hospital beds and the proportion of in-patient expenditure are well above the EU average ([33]). Recent measures such as a selective contracting of hospital services based on the National Health Map could be beneficial.

Each year according to the Bulgarian Medical Association, the number of doctors emigrating equates to almost 90 % of the number of medical graduates. Though the ratio of physicians to the population is still higher than the EU average, the outflow and ageing of physicians has resulted in insufficient doctor coverage in some fields and regions. The shortage of nurses (half the EU average ratio) is also a significant problem especially in the light of the emigration trends.

The ineffective healthcare system probably contributes to one of the highest mortality rates in the EU. Life expectancy is among the worst in the EU (European Commission and the Economic Policy Committee, 2016). Moreover, the circulatory system mortality is the highest in the EU. Infant, perinatal and amenable mortalities also remain high above the EU average for 2014. Preventable and cancer mortalities in Bulgaria increased against the EU average in 2010-2014. Premature mortality due to non-communicable diseases is among the highest in the EU, at twice the EU average level.

(32) People without health insurance tend to use more expensive emergency hospital services. In addition, they do not participate in prevention and promotion activities.

(33) In 2014, there were 593 acute care hospital beds per 100 000 inhabitants, 50 % above the EU average. The share of in-patient expenditure declined in recent years, but remains above EU average (32 % versus 27 %).

4.4. INVESTMENT

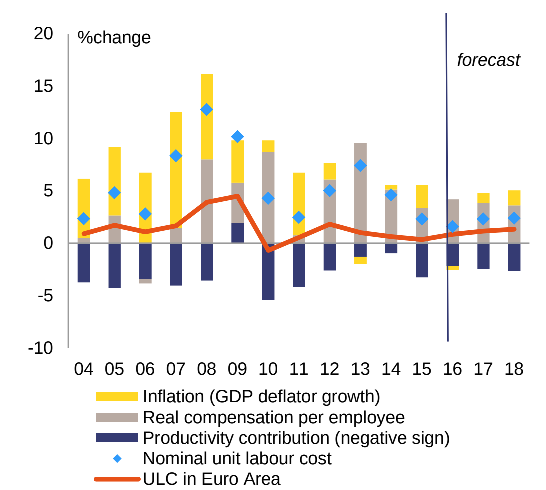
4.4.1. EXTERNAL COMPETITIVENESS

The trade balance has been improving but is forecast to gradually decline over the coming years. Export demand from EU trading partners has been stable, while tourism exports helped to contribute to a narrowing of the trade deficit (see Section 1). While the trade deficit for goods is estimated to have been 4.7 % of GDP in 2016, it is more than compensated by the strong services trade surplus (expected to have been 6.4 % of GDP in 2016). Going forward, higher import growth mainly driven by buoyant domestic demand and rising energy costs is expected to lead to a deteriorating trade balance of goods while the surplus in the services trade is projected to moderately further increase (see Section 1).

Rapid wage increases have not yet translated into deteriorating external competitiveness. Rapid wage increases (Graph 4.4.1) reflect a tightening labour market due to the cyclical improvement of the economy and structural weaknesses affecting labour supply (see Section 4.3). However, in the short- to medium- term, manufacturing industries, the bulk of exporters, tend to have relatively low sensitivity to cost changes. They are strongly integrated in global value chains and still benefit from the relatively low wage levels associated with a catching up economy (Bulgarian National Bank, 2016a). The recent stabilization of the real effective exchange rate (REER) also helped (Graph 4.4.2).

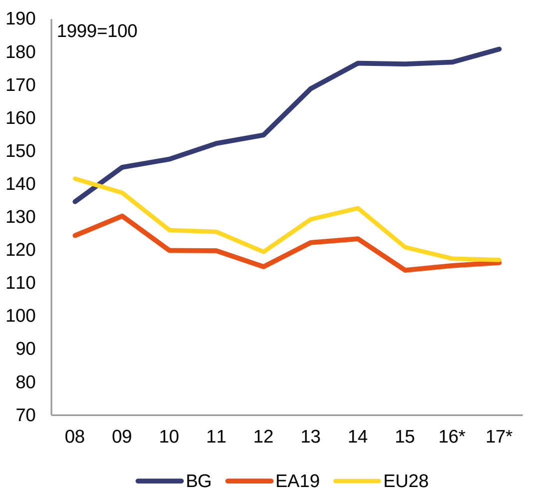
In the medium- to long-term, the labour market conditions will impact on investment decisions. Demographic ageing, emigration and skill mismatches (see Section 4.3) may adversely impact on potential economic growth and external competitiveness in the medium to long-term. International investors report having forgone investments in Bulgaria due to the difficulties with labour supply (World Economic Forum, 2016b). Furthermore, relatively high labour costs in the non-tradable sectors could eventually feed into higher costs in the tradable sector. For the time being, the tradable sector is still protected by strong productivity.

Graph 4.4.1: **Decomposition of Unit Labour Costs (ULC)**



Source: European Commission

Graph 4.4.2: **ULC-based REER in Bulgaria and EU**



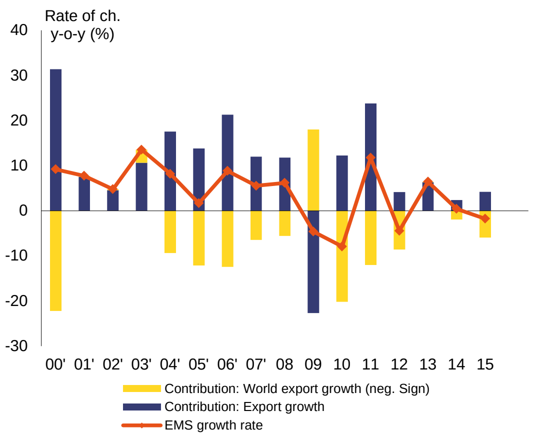
Source: European Commission

Despite moderate gains in market shares, exports are vulnerable to sudden shifts in external demand. Export market shares have only moderately improved since the 2009-2010 crisis. In 2015, they have decreased (see Graph 4.4.3). Bulgaria's competitiveness gains in several of the EU trading partners – Germany, Italy, Greece and France – are trumped by their low dynamism (Graph 4.4.4). In other important markets, such as Belgium and Turkey, both competitiveness and dynamism are a source of concern ([34]). These

(34) Exports to Belgium in 2016 have also been affected by the temporary closure of a copper refinery plant in Belgium.

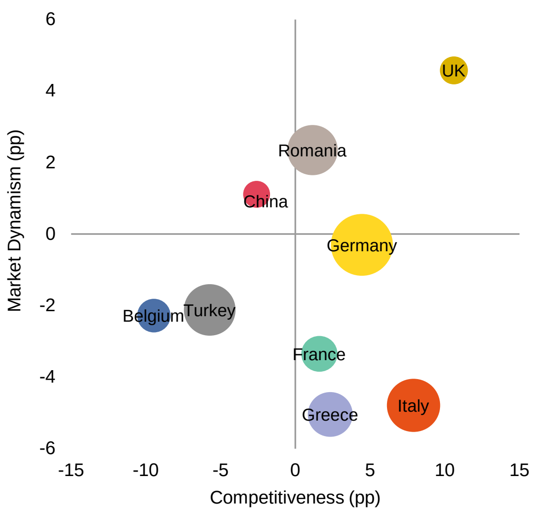
trends make export performance rather dependent on external demand shifts.

Graph 4.4.3: **Bulgaria's Export Market Shares (EMS)**



Source: European Commission

Graph 4.4.4: **Dynamism and Competitiveness of Exports (goods) on top-10 country destinations**



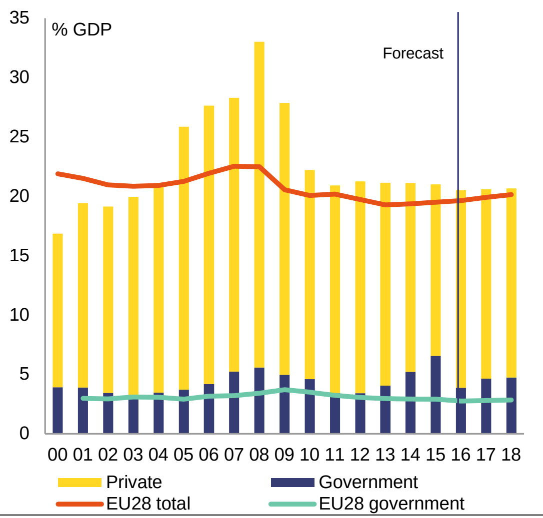
Source: European Commission
Note: The size of the bubble indicates the weight of the destination in Bulgaria's exports for 2016. Market dynamism stands for the difference between the annualized growth rates of World imports per market and global World imports. Competitiveness stands for the difference between the annualized growth rates of Bulgaria's exports per market and World imports per market.

Despite significant improvements, exports of low-to-medium quality prevail. While the share of high quality exports moderately increased to 18 % in 2010-2015, low quality exports still constitute 50 % of overall exports, according to European Commission calculations. The same trend is found in the technology content of industries, where the proportion of the high and medium/high exports represent only 39 % of the total. Challenges in the business environment, including an unstable legal framework and corruption, as well as the lack of highly qualified staff continue to prevent Bulgaria from moving up the export quality ladder.

4.4.2. INVESTMENT DEVELOPMENTS

The crisis increased Bulgaria's dependency on public investment. Despite an overall investment ratio above the EU average, private investment has been declining and contracted further in 2015 (Graph 4.4.5). A number of investment barriers continue to constrain a tangible contribution of private investment to economic growth (see Box 4.4.1). In contrast, public investment accelerated in 2015 with the finalisation of the 2007-2013 EU funds programming period, reaching its highest share of total investment post-crisis (more than double the EU average). Public investment reduced again in 2016, as investment under the new EU funding period still needs to gain momentum.

Graph 4.4.5: **Public and private investment**

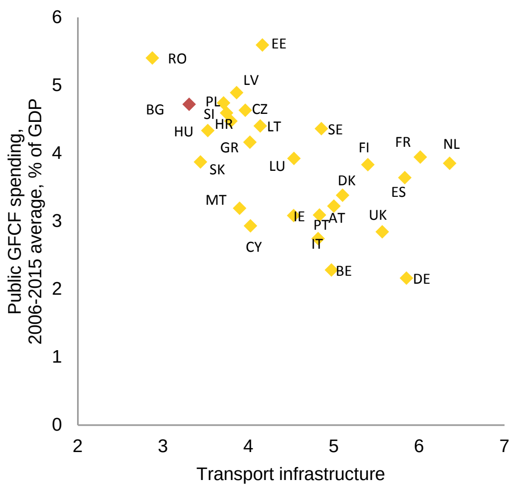


Source: European Commission

Bulgaria performed well in the implementation of EU funds during the previous cycle. The implementation rate under the EU 2007-2013 programme reached 95 % in 2016, the highest among regional peers, together with Poland. According to the authorities, the implementation of the 2014-2020 programmes is on track. The best prospects are in transport, environment, labour market integration and social inclusion, education, and public administration where enough mature projects exist. However, there are still some risks of interruption of financing and consequently a loss of funds as a number of actions included in the *ex-ante* conditionality have not yet been fulfilled (see Box 2.1 in Section 2).

The public investment management system still lacks a long-term perspective and coordination. Despite the high public investment, the quality of infrastructure remains relatively low (Graph 4.4.6). There is neither a long-term plan nor a list of priorities, especially for the non-EU funded investment projects. In most cases, the project selection is done ad-hoc and according to the government's political priorities. The municipalities run their own investment programmes, and there is no horizontal programme coordination or monitoring.

Graph 4.4.6: **Public investment and quality of infrastructure**



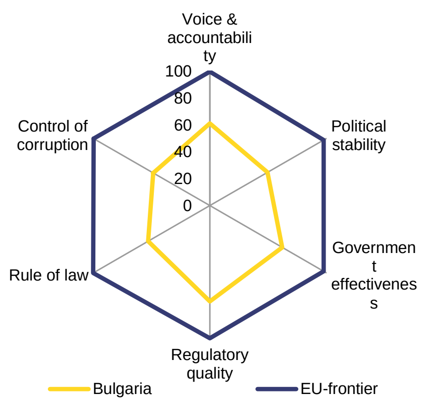
Source: European Commission and World Economic Forum: the Global Competitiveness Index 2015-2016.

Ongoing efforts to improve the investment environment are still subject to implementation risks. In 2016, the government adopted an action plan with legal, administrative and general actions to address the main obstacles to investments. Half of all actions were planned for 2016. Most of the actions (about 62 %) envisage changes in the legislation. The executed actions so far include amendments to the Statutory Instruments Act (see section 4.4.3) and the Vocational Education and Training Act, easing several administrative procedures as well as reducing the connection time to the electricity grid. Delays in some other actions are a risk for their adoption and implementation.

4.4.3. BUSINESS ENVIRONMENT

Corruption and weak institutions remain among the top business environment concerns. Despite an improvement in the Global competitiveness ranking in 2016 (World Economic Forum, 2016a), some areas continue to show little improvement. "Institutions" are particularly weak among competitiveness indicators, driven by low performance in property rights, intellectual property protection, judicial independence and the transparency of government policy-making (World Economic Forum, 2016a. See also Section 4.6.1). Corruption is judged by business as the most problematic factor, followed by the inadequately educated workforce (World Economic Forum, 2016b. See also Sections 4.3.3 and 4.6.3). According to the Heritage Foundation (2016), economic freedom and governance indicators also continue to underperform. In the 2016 worldwide governance indicators (World Bank, 2016b), Bulgaria ranks among the weakest in the EU in terms of accountability, rule of law, and control of corruption (Graph 4.4.7).

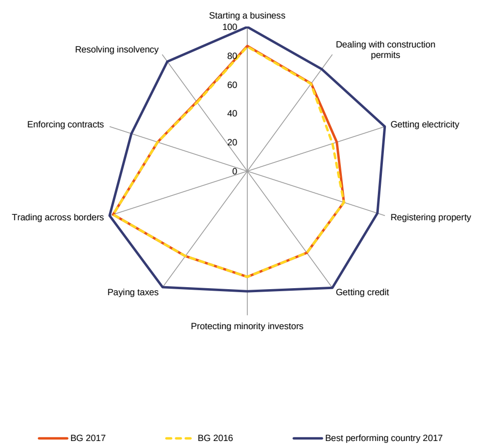
Graph 4.4.7: **Worldwide governance indicators**



Source: World Bank (2016a)

The stalled structural reforms momentum is further reflected in business conditions. Bulgaria's ranking in the Doing Business Report worsened in 2016 (World Bank, 2016b). The weakest areas remain connection to the electricity grid and insolvency, where the gap to the best performing country is the largest in spite of minor improvements (Graph 4.4.8). In the Global competitiveness ranking (World Economic Forum, 2016a), innovation and business sophistication are also highlighted as persistently hampering the business environment.

Graph 4.4.8: **Doing Business 2017, distance to frontier**



Source: World Bank (2016b)

Poor consumer conditions and an insufficient enforcement of EU consumer rules persist. Consumers continue to have low trust in consumer protection organisations (including public authorities and NGOs) and in redress mechanisms ([35]). Strengthening consumer law enforcement capacity could improve the business environment. These problems give rise to unfair commercial practices and to other illicit practices ([36]).

The business environment and legal framework are expected to benefit from improvements in the policy making process. The amendments to the Statutory Instruments Act in 2016 introduced a compulsory *ex-ante* and *ex-post* impact assessment of policy proposals and increased the minimum period for public consultation. Guidelines were also developed for assessing the impact on SMEs of new legislation. Depending on the implementation, these changes can contribute to a more stable and predictable legal framework. In addition, the capacity of the administration to prepare high-quality impact assessments represents a potential risk.

Moderate progress has been made on lowering the administrative burden. The Ministry of Economy estimates the combined annual business savings from lowering the administrative burden at up to BGN 417mn (EUR 213mn). However, so far 78 % of the measures from the first and second action plans have been implemented as of December 2016 (European Commission, 2016d). Furthermore, only about 54 % of actions under the third action plan had been accomplished at the end of 2016.

The business environment continues to be less supportive of SMEs than in the EU ([37]). Little progress was made in 2016 in implementing relevant measures or improving key policy indicators, especially in the areas of entrepreneurship, skills and innovation, internationalisation, responsive administration, and public procurement. This is a crucial source of concern especially given the high contribution of SMEs to employment and value added.

(35) Consumers' trust in redress mechanisms (28 % vs 47 % in EU28) is low and has only marginally increased (European Commission, 2017a).

(36) The proportion of consumers reporting unfair commercial practices and other illicit practices is well above the EU average. The same is true for the percentage of retailers reporting unfair commercial practices by competitors (European Commission, 2017a).

(37) 2016 SBA Fact-sheet, Bulgaria.

Box 4.4.1: Investment challenges and reforms in Bulgaria

Section 1. Macroeconomic perspective

Since the crisis, the decline in overall investment has been sharper than in the EU average, mainly due to private investment. Until 2015, the decline in private investment was partly offset by higher public investment, as the absorption of EU structural funds had increased. The slow start of the 2014-2020 programming period for EU funds had a strong impact on public investment, but a gradual recovery is expected in 2017 (see Section 1). As a consequence, total investment is expected to slowly increase, in line with the EU average. However, high private sector indebtedness, despite the ongoing deleveraging process, subdued credit demand and only a gradually-decreasing high stock of non-performing loans limit banks' capacity to boost credit and private investment (see Section 4.2.4). Although some steps have been taken, persistent weaknesses in the business environment continue to weigh negatively on investment and restrain the demand for credit (see Section 4.4.3 and European Commission, 2015b).

Section 2. Assessment of barriers to investment and ongoing reforms

Table 1:

Public administration/ Business environment	Regulatory/ administrative burden	
	Public administration	
	Public procurement /PPPs	CSR
	Judicial system	
	Insolvency framework	CSR
	Competition and regulatory framework	
Labour market/ Education	EPL & framework for labour contracts	
	Wages & wage setting	
	Education	CSR

Financial Sector / Taxation	Taxation	
	Access to finance	
R&D&I	Cooperation btw academia, research and business	
	Financing of R&D&I	
Sector specific regulation	Business services / Regulated professions	
	Retail	
	Construction	
	Digital Economy / Telecom	
	Energy	
	Transport	

Legend:

	No barrier to investment identified
CSR	Investment barriers that are also subject to a CSR
	No progress
	Limited progress
	Some progress
	Substantial progress
	Fully addressed

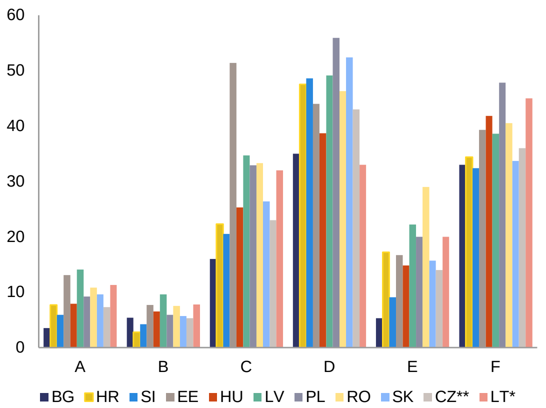
- Corruption and weak public institutions continue to hamper Bulgaria's business environment. The regulatory and administrative burden remains high and obstructs business activities. Inefficiencies in public administration, the low quality of regulations, frequent changes to the legislation and slow enforcement due to lengthy proceedings weaken the effectiveness of Bulgaria's legislation and deter investment (see Sections 4.4.3 and 4.6.2).

- Skills shortages and mismatches weigh on investment. The quality of the education and training systems and their limited adequacy with regard to the labour market continues to hamper the supply of suitably-skilled workers, thus negatively impacting investment decisions (see Section 4.3.1).

- Several weaknesses in the insolvency framework continue to hamper private investment. The insolvency framework is characterised by delays, complexity, high costs, low recovery rates and the tendency for restructuring cases to end in liquidation. While the government has acknowledged the need for overhauling the insolvency framework, there have been numerous delays. Besides the needed amendments to the Commercial Code and its implementation, the effectiveness of the insolvency framework also depends on improving the infrastructure of the judicial system (see Section 4.6.3).

Bulgaria continues to underperform in the field of entrepreneurship. The Global Entrepreneurship Monitor Report for Bulgaria (GEM, 2016) highlighted the many challenges faced by entrepreneurs (Graph 4.4.9) ([38]). To tackle the gaps in the business ecosystem, the government adopted the 'Entrepreneurship Bulgaria 2020' plan at the end of 2015. In 2016, it introduced an entrepreneurship module in all levels of education, though the quality remains to be seen. In addition, the ongoing reform of the insolvency framework (see Section 4.6.3) is crucial for enabling a restructuring and fresh start of bankrupt entrepreneurs.

Graph 4.4.9: **Global Entrepreneurship Monitor**



A: total early-stage entrepreneurial activity
B: established business ownership rate
C: perceived opportunities
D: perceived capabilities
E: Entrepreneurial intention
F: fear of failure

Source: GEM (2016), GEM Country profiles
Note: The data for LT* is for 2014 and for CZ** for 2013.

The EU SME initiative and the Investment Plan for Europe will increase funding for SMEs. Access to finance continues to be a challenge for SMEs. The EU SME initiative, operational since 2016, is expected to mobilise about EUR 600 mn for Bulgaria's SMEs through commercial banks. The instrument is managed by the European Investment Fund and co-financed by the European Structural and Investment Funds, the European Commission (through its Horizon 2020 funds), and the European Investment Bank Group. Adding to this, ten agreements with Bulgarian financial intermediaries have been approved under the SME window of the European Fund for Strategic Investments, the first pillar the Investment Plan for Europe, which should mobilise financing of EUR 575m. A further EUR 408m of financing for SMEs can be mobilised by an agreement approved by the EIB under the Infrastructure and Innovation window.

The very nascent business start-up system is still largely dependent on public support. Venture capital and business angel financing for new and growing firms are well below the EU average. In July 2015, the government set up a fund manager responsible for all financial instruments co-financed by European Structural and Investment Funds (so-called Fund of Funds). However, progress was slow in 2016 with no operational results so far. The insufficient public information on the fund manager's investment strategy and uncertainty over the planned financial product pipeline in 2016 further added to the risks surrounding the project.

The slow uptake of digital technology, mainly due to low digital skills, is a further challenge. Bulgaria ranks among the EU's lowest countries in the 2016, with a very weak rate in digital public services, e-government usage and integration of digital technology by businesses (European Commission, 2016f). Further investment in fixed and mobile broadband infrastructure is still hindered despite some progress for mobile broadband (see also European Commission, 2015c). Despite recent improvements, consumers' confidence in online commerce is one of the lowest in the EU (European Commission, 2017b). The share of the population who ordered goods or services over the internet in the last 12 months is less than one third of the EU28 average (17 % vs 55 % EU28). Only 5 % of Bulgarian SMEs sold online in 2016 (17 % for EU28) (European Commission, 2016f).

(38) Another constraining factor is the lack of national rules for companies wishing to directly transfer registered offices on a cross-border basis.

Box 4.4.2: **Selected highlights – Bulgaria's use of the Investment Plan for Europe**

Bulgaria has shown a promising participation in the actions made available under the Investment Plan for Europe. Bulgaria ranks second among EU member states in terms of expected investment under the Investment Plan relative to GDP. It has been particularly successful in the uptake of financial instruments that support SME access to finance under the European Fund for Strategic Investments (EFSI). As of 15 December 2016, ten agreements with Bulgarian financial intermediaries have been approved under the EFSI SME window. The expected mobilised investment is EUR 575 million, based on a contribution of EUR 54 million from the European Investment Fund (EIF). SMEs are showing a strong interest for the financing made available at improved conditions thanks to the support of EFSI. For instance, the EIF has been over-delivering under the first EFSI/COSME agreement in Bulgaria (signed in October 2015), as the portfolio of SME loans already exceeds 75% of the planned size.

Besides the SME window, financing has been also made available under the Infrastructure and Innovation window. The European Investment Bank (EIB) and the Bulgarian Development Bank (BDB) signed the first agreement in November to provide funding under the Infrastructure and Innovation window. This agreement is expected to generate EUR 420 million of investments. The EIB has provided a EUR 150m loan to the BDB to on-lend, directly or through partner banks, to SMEs and mid-caps in Bulgaria.

A Memorandum of Understanding (MoU) to establish an Advisory Platform to strengthen support to local project promoters has been also recently signed. The EIB and the Bulgarian authorities signed the MoU in December 2016 under the framework of the European Investment Advisory Hub (EIAH). The platform, which would be the first one supported by EIAH at Member State level, is planned to be established by end-March 2017. The platform aims to support project promoters in the identification, preparation, structuring and implementation of strategic projects. In particular, the focus will be on SMEs and mid-caps to address companies' difficulties in scaling up and supporting their access to relevant financial instruments. Finally, Bulgarian promoters have also been active users of the European Investment Project Portal (EIPP) with seven projects already published as of end-2016.

4.5. SECTORAL POLICIES

4.5.1. RESEARCH, DEVELOPMENT AND INNOVATION

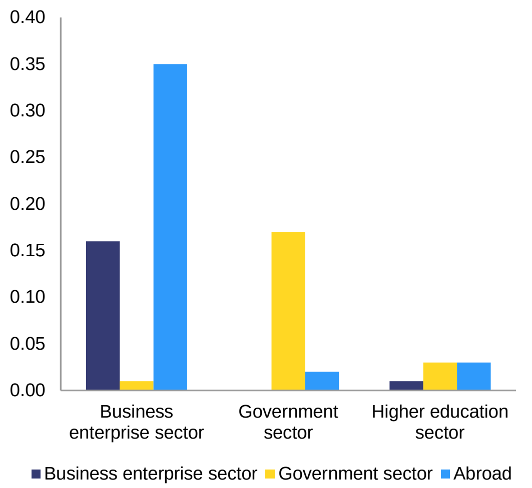
Low technological progress and innovation performance limit Bulgaria's growth potential. Bulgaria is a modest innovator with an innovation performance at only 46 % of the EU average (European Commission, 2016g). The main weaknesses are in the areas of 'linkages and entrepreneurship', 'open, excellent and attractive research systems' and 'finance and support'. Despite stronger results in community trademarks and designs, patent applications are low, which could be partly explained with the insufficient cooperation between businesses and academia (see below).

The research and innovation (R&I) system remains ineffective. The R&I system suffers from weak long-term financial commitment, inefficient governance structures, inadequate incentives for high-quality research, a lack of effective policies to strengthen research-business cooperation, and a weak human resources base. As a result, it does not create the necessary framework conditions to stimulate investments in business R&D and innovation.

There are still a number of shortcomings in the financing of R&I. Identified inefficiencies ([39]) include the need to establish a long-lasting support for R&I investments and to ensure the independent, robust and coordinated management of national and European R&I funding ([40]). A rapid alignment with international peer review standards to guarantee an adequate evaluation of R&I projects and performance-based institutional funding would also help improve the efficiency and impact of public R&I funding. Support for firms that perform R&D&I through a wider and adequately funded portfolio of instruments ([41]) and the deployment of ESIF funds are indispensable for improving the innovation landscape.

The low level of R&D investment hampers competitiveness. Investment in R&D increased by more than 21.5 % in 2015 to 0.96 % of GDP. However, it is still well below the national target of 1.5 % of GDP. Higher business R&D (representing 73 % of total R&D expenditure) explains most of the growth based on preliminary data from the National Statistical Institute (NSI). Foreign companies are the largest sources of funds for business R&D (Graph 4.5.1) ([42]).

Graph 4.5.1: **R&D expenditure (GERD) by sector of performance and source of funds, 2014**



Source: European Commission

Universities' R&D funding is the lowest in the EU. Preliminary data from the NSI points to a further decline of 0.02 pp. in 2015, to 0.05 % of GDP. Business investment in the higher education R&D sector is low, which suggests insufficient interest for cooperation ([43]).

The impact of ESIF and the development of the science base are limited by structural weaknesses in the R&I system. Policy initiatives such as the updated National Strategy for the Development of Scientific Research and changes to the Law on the Promotion of Scientific Research do not sufficiently address the systemic

(39) The authorities requested an evaluation of the R&I system using the Horizon 2020 Policy Support Facility (PSF). A report with policy messages and operational recommendations was published in October 2015 (European Commission, 2015d).

(40) An effective governance mechanism between the Ministries and R&I stakeholders through the activation of the Smart Growth Council would support this goal.

(41) Including innovation vouchers, "proof of concept" funds and science-business mobility schemes.

(42) The sectors with the largest business R&D investments are the professional, scientific and technical activities, reflecting investments in clinical trials by foreign companies, and manufacturing. However, R&D investment in manufacturing is lower than in any other EU country.

(43) The Global Competitiveness Report 2016-2017 ranks Bulgaria 74th out of 138 countries in university-industry collaboration in R&D (World Economic Forum, 2016a).

shortcomings of R&I. Key bottlenecks remain: (i) poor administrative capacity and insufficient reliance on performance-based funding allocation; (ii) the fragmentation of the R&I system and lack of systematic dialogue and incentives for stronger cooperation between academia, research and business; (iii) the lack of a comprehensive update of the research infrastructure mapping with a systematic prioritisation; and (iv) the lack of synergies with the smart specialisation process.

4.5.2. ENERGY AND CLIMATE ACTION

The authorities' efforts to reform the energy sector are showing some tangible results. The independence of the State Energy and Water Regulatory Commission was reinforced through amendments to the Energy Bill. The financial stability of strategic state-owned energy enterprises (SOEs) was strengthened by the payment of arrears and the setting up of an Electricity System Security Fund. A more market-based approach towards renewables, the setting up of a day-ahead segment in the Independent Bulgarian Energy Exchange (IBEX) and the preparatory steps for opening of the retail segment to competition are welcomed. In addition, Bulgaria has participated actively in the Central Eastern and South Eastern Gas Connectivity (CESEC) regional initiative. Finally, the inter-system gas link between Bulgaria and Romania was launched in November 2016.

However, reforms in the electricity sector are still incomplete and may have possible negative fiscal impacts. The State Energy and Water Regulatory Commission still lacks adequate financial and human resources. The fact that the Bulgarian Energy Holding (BEH) owns the Independent Bulgarian Energy Exchange (IBEX) raises doubts about possible conflicts of interest.

The low profitability and resource efficiency of energy SOEs poses potential financial stability and fiscal risks. The majority of these SOEs have been underperforming private sector competitors (IMF, 2016). Energy SOEs are accumulating debt, while mainly relying on transfers from the central budget or on implicit state guarantees for international capital market access. This contributes to corporate indebtedness in the energy sector and poses potential contingent liability risks (see Section 1, Graph 1.9). In addition, the economic performance of SOEs combined with frequent changes in their board membership, often based on unclear rules, point to overall weak SOE corporate governance.

4.6. PUBLIC ADMINISTRATION

4.6.1. PUBLIC ADMINISTRATION

The public administration reforms have yet to provide the much-needed boost for a more efficient public sector. Ambitious public administration and e-government measures, including legal initiatives adopted in the course of 2016, have so far had only a limited impact on the efficiency of public institutions. Implementation has been slow and fragmented. For instance, the introduction of shared and integrated administrative services has been delayed. This calls for an accelerated and more systematic implementation, including an efficient enforcement and comprehensive monitoring.

The reform momentum in e-government has slowed down. A state agency was created in 2016 to speed up the introduction of e-government and improve coordination. However, to become fully operational, adequate expertise and resources are still missing. The priority projects announced for 2016 in the e-government roadmap have been delayed. Their implementation may require stronger political support. Progress has been achieved in the area of open data with the adoption of the legal framework and the publication of over 1500 datasets, which reflects Bulgaria's good EU ranking for its data portal maturity (European Commission, 2016h).

Ongoing reforms in the civil service continue to be hampered by several shortcomings. As a welcome step, recent legislative amendments allow for the centralisation of the first step of the recruitment process of all civil servants in compulsory competitions. Still, the current proposals for the performance-based remuneration and career development system could be streamlined and improved.

Corruption continues to constitute a major challenge. The institutional mechanisms to address this challenge remain fragmented and largely ineffective. In 2015, the authorities presented an ambitious strategy in the fight against corruption. However, implementation is still in its early stages. Among the key measures, the strategy envisaged the establishment of a unified anti-corruption agency to investigate conflicts of interest and illicit enrichment. However, the government's proposal for the necessary legislative changes has not passed the parliamentary stage. In terms of judicial follow-up to corruption allegations, Bulgaria continues to show a weak track record regarding corruption cases leading to final convictions in court (European Commission, 2017b).

4.6.2. PUBLIC PROCUREMENT

Despite some improvements, there are still deficiencies in the public procurement system. The procurement publication rate is higher than the EU average. However, the fact that the lowest price is often the only selection criteria (in around 64 % of the awarded tenders in 2016) might give less room for fostering quality and innovation in the selected projects. The less transparent negotiated procedure without prior publication of a contract notice is also used more often than the EU average (European Commission, 2016h), while cooperative procurement is applied in only 2 % of the tenders.

Bulgaria has performed relatively well in transposing the European procurement legislation. The transposition of two 2014 EU directives into a law on public procurement has enhanced legal certainty. Secondary legislation has been enacted, and a guidance handbook on the law and secondary legislation has been prepared. Some standardised tender documents and contract clauses have been prepared.

Work to strengthen the capacity of the Public Procurement Agency and the contracting authorities is ongoing. The authorities plan to enhance the capacity of the Public Procurement Agency (PPA), including by increasing staff. The newly created Methodological Council is expected to help establish coherent guidance and control practices of public procurement rules. Training to enhance the professionalization of the PPA and the contracting authorities is conducted by the Institute for Public Administration.

A new ex-ante control system was introduced in September 2016. The shift to risk and random-based ex-ante controls could increase ownership from contracting authorities while allowing the PPA to improve the quality of its controls. The effectiveness of the new system remains to be proven.

While cooperative public procurement has shown positive results, some challenges remain. The introduction of e-procurement in the Central purchasing body (CPB) for the state administration is a welcome development. At the same time the progress with the municipal cooperative procurement and the CPB in the health sector is still limited.

The procurement appeal system is crucial for the effective implementation of public funds. The assessment of the procurement appeal system identifies some areas for improvement (Public Procurement Agency *et al*, 2016). Putting in place appropriate measures to address the remaining shortcomings is important to ensure the effective use of both national budget funds and the European Structural and Investment Funds during the current 2014-2020 programming period.

Public procurement remains one of the sectors most at risk of corruption. This can raise the cost and compromise the quality of public services. Such risks affect both smaller local contracts and larger public works such as road construction. In 2015, nearly 60 per cent of businesses in Bulgaria (the highest percentage in any Member State) considered that corruption had prevented them from winning a public tender within the last three years (European Commission, 2015e).

4.6.3. JUDICIAL SYSTEM AND INSOLVENCY FRAMEWORK

Despite welcome progress, there are still a number of weaknesses in the judicial system. An effective national justice system, including independent judges, is important to make the country's business environment more investor-friendly. The quality and the independence of the judiciary remain of concern. The perceived independence of the judiciary remains one of the lowest in the EU (European Commission, 2017c). In addition, heavy workload and resulting delays in court proceedings appear to be a continuing challenge in some courts, especially those in the capital city. A number of reforms are in progress to improve efficiency. In addition, the government aims to enhance the infrastructure of the judicial system including by upgrading the court document management system.

A sound implementation of the legislative amendments adopted in 2016 should have a positive impact on the judicial system. The adopted amendments to the Constitution and to the Judicial Systems Act constitute a significant further step in the reform of the judiciary. However, as these reforms have been implemented only recently, it is too early to assess their impact.

The insolvency framework continues to be hampered by several weaknesses. The ineffective insolvency framework is a contributing factor to the slow deleveraging of private sector indebtedness (see Section 4.2.4). The framework is characterised by high complexity, lengthy and costly procedures, and a low recovery rate.

The authorities have sought to reform the insolvency system since 2015 but progress has been slow. This reform includes introducing a fast-track court approval procedure for pre-agreed restructuring agreements, introducing a sound framework that provides for out-of-court debt restructuring and preventive procedures, ensuring the interconnectivity between courts and the insolvency register, improving the data quality of the trade register, and improving the supervision of auditing companies. In addition, improving judges' capacity to handle insolvency cases could be beneficial. Progress, however, has been slow. Amendments to the Commercial Act and the Pledge Registry have only recently been adopted ([44]). Their effectiveness remains to be assessed. A new law on supervising financial auditing companies has been submitted to Parliament but has not yet been adopted.

(44) State Gazette No 105/30.12.2016

ANNEX A
Overview table

2016 country-specific recommendations (CSRs)	
Commitments	Summary assessment (45)
• **CSR 1:** Achieve an annual fiscal adjustment of 0.5 % of GDP towards the medium-term budgetary objective in 2016 and in 2017. Further improve tax collection and take measures to reduce the extent of the informal economy, including undeclared work. • Achieve an annual fiscal adjustment of 0.5 % of GDP towards the medium-term budgetary objective in 2016 and in 2017. • Further improve tax collection and take measures to reduce the extent of the informal economy, including undeclared work.	Bulgaria has made **some progress** in addressing CSR1 (this overall assessment of CSR 1 does not include an assessment of compliance with the Stability and Growth Pact). The assessment of compliance with the Stability and Growth Pact will be made in spring when final data for 2016 will be available. • **Some progress** in improving tax collection and reducing the extent of the informal economy. The government adopted in October 2015 the Single National Strategy (SNS) 2015-2017 for improving tax collection, tackling the shadow economy and reducing compliance costs. The implementation of the SNS and its accompanying action plan is ongoing with some of the measures already in place. Additional measures such as risk based controls on enterprises and enhanced controls on products subject to excise duties are also being implemented. Tax revenue is increasing and part of this increase can be attributed to improved collection, but the size of the shadow economy remains high. To tackle undeclared work the authorities have increased labour inspections but more

(45) The following categories are used to assess progress in implementing the 2016 country-specific recommendations (CSR):

No progress: The Member State has not credibly announced nor adopted any measures to address the CSR. Below a number of non-exhaustive typical situations that could be covered under this, to be interpreted on a case by case basis taking into account country-specific conditions:
• no legal, administrative, or budgetary measures have been announced in the National Reform Programme or in other official communication to the national Parliament/relevant parliamentary committees, the European Commission, or announced in public (e.g. in a press statement, information on government's website);
• no non-legislative acts have been presented by the governing or legislator body;
• the Member State has taken initial steps in addressing the CSR, such as commissioning a study or setting up a study group to analyse possible measures that would need to be taken (unless the CSR explicitly asks for orientations or exploratory actions), while clearly-specified measure(s) to address the CSR has not been proposed.

Limited progress: The Member State has:
• announced certain measures but these only address the CSR to a limited extent;
and/or
• presented legislative acts in the governing or legislator body but these have not been adopted yet and substantial non-legislative further work is needed before the CSR will be implemented;
• presented non-legislative acts, yet with no further follow-up in terms of implementation which is needed to address the CSR.

Some progress: The Member State has adopted measures that partly address the CSR
and/or
the Member State has adopted measures that address the CSR, but a fair amount of work is still needed to fully address the CSR as only a few of the adopted measures have been implemented. For instance: adopted by national parliament; by ministerial decision; but no implementing decisions are in place.

Substantial progress: The Member State has adopted measures that go a long way in addressing the CSR and most of which have been implemented.

Full implementation: The Member State has implemented all measures needed to address the CSR appropriately.

	effort seems to be needed in this area.
• **CSR 2:** By the end of 2016, finalise the asset quality review and stress test of the banks. By the end of 2016, complete the balance-sheet review and stress test of the insurance companies and the review of private pension funds' assets. Take, as necessary, follow-up actions in all three sectors and continue to improve banking and non-banking supervision. • By the end of 2016, finalise the asset quality review and stress test of the banks. • By the end of 2016, complete the balance-sheet review and stress test of the insurance companies and the review of private pension funds' assets. • Take, as necessary, follow-up actions in all three sectors and continue to improve banking and non-banking supervision.	Bulgaria has made **some progress** in addressing CSR2. • **Some progress** in finalising the asset quality review and stress test of the banks. The results of the review and stress tests were published but the degree of independence and the nature of the stress tests did not fully comply with the recommendation. • **Substantial progress** in completing the balance-sheet review and stress test of the insurance companies and the review of private pension funds' assets. The reviews were completed to a high degree of independence and transparency. Some issues, including valuing illiquid financial instruments and assets as well as related-party transactions, were not fully tackled. • **Limited progress** in taking, as necessary, follow-up actions in all three financial sectors and in improving banking and non-banking supervision. The two supervisors have issued follow-up actions resulting from the reviews and stress tests. Those actions remain to be implemented. The BNB's action plan on banking supervision is being implemented albeit with delays in some important areas. The IMF/WB review is ongoing. Non-bank supervision remains to be improved by tackling the issues highlighted by the reviews.
• **CSR 3:** Reinforce and integrate social assistance, including relevant social services, and active labour market policies, in particular for the long-term unemployed and young people not in employment, education or training. Increase the provision of quality education for disadvantaged groups, including Roma. Improve the efficiency of the health system by improving access and funding, and health outcomes. In consultation with social partners establish guidelines and criteria for setting the minimum wage. Increase the coverage and adequacy of the minimum	Bulgaria has made **limited progress** addressing CSR3.

income scheme.	
• Reinforce and integrate social assistance, including relevant social services, and active labour market policies, in particular for the long-term unemployed and young people not in employment, education or training.	• **Some progress** in reinforcing and integrating social assistance, including relevant social services, and active labour market policies, in particular for the long-term unemployed and young people not in employment, education or training. Bulgaria initiated a pilot project to introduce integrated Centres for Employment and Social Assistance and plans to add 8 new centres in remote areas to the existing 65. Many unemployed have already been serviced by these centres. The working methods between the Employment Agency and Agency for Social Assistance have improved. However, there is a limited provision of social services to support the long term unemployed taking a job, as local municipalities – the main social services providers – have not been involved. Efforts to address the high percentage of young people not in employment, education or training have started yielding results as the implementation of the Youth Guarantee is speeding up. However employment indicators are still worrying. There are several projects at national level based on the plans of municipalities and funded by the European Social Fund which aim at providing integrated services for Roma, migrants and the disadvantaged, including employment, education, housing and social services. Many of those in target groups are long term unemployed.
• Increase the provision of quality education for disadvantaged groups, including Roma.	• **Limited progress** in increasing the provision of quality education for disadvantaged groups, including Roma. Despite budgetary increases, ensuring the necessary funding for the ongoing reform is a challenge and the financial standard has not yet been adopted. School performance indicators and the methodology for funding based on performance have yet to be developed. The provision banning segregated classes within the same school/kindergarten needs to be properly implemented and monitored, but such mechanisms remain weak. Following the entry into force of the new School Education Act in August 2016, a new education

	standard will focus on intercultural education (46) and will be implemented for the first time this school year.
• Improve the efficiency of the health system by improving access and funding, and health outcomes.	• **Limited progress** in improving the efficiency of the health system by improving access and funding, and health outcomes. Most measures concerning pharmaceutical pricing which aim at reducing costs of medicines are not expected to go into force until the beginning of 2017 at the earliest. Others like contracting of hospital services based on the National Health Map are implemented only partially – contracts for hospitals until April 2017 were set based on historical data. A significant part of the population remains without health insurance coverage.
• In consultation with social partners establish guidelines and criteria for setting the minimum wage.	• **Limited progress** in establishing guidelines and criteria for setting the minimum wage. Progress on devising a minimum wage setting mechanism is also limited; there seems to be general agreement among the government and social partners on the way forward, however this still needs to be put in practice.
• Increase the coverage and adequacy of the minimum income scheme.	• **Limited progress** in increasing the coverage and adequacy of the minimum income scheme. It is now possible to apply for benefits irrespective of the place of residence. Earnings from one day and dual education contracts will be excluded from the means testing. Heating benefits for the 2016/2017 winter season were marginally increased. However, the extent of measures planned to increase the coverage and adequacy of the minimum income scheme does not correspond to the magnitude of poverty in the country and do not allow the benefits to keep their safety net function over time.
• **CSR 4:** Reform the insolvency framework to accelerate recovery and resolution procedures and improve their effectiveness and transparency. Increase the capacity of the courts regarding	Bulgaria has made **limited progress** addressing CSR 4.

(46) The adopted standard is less ambitious than initially planned as it includes 'Civic, health, environment and intercultural education' but it is still a step forward to a more inclusive and innovative methods of education. The programme is to be adopted by the schools depending on their needs. Center Amalipe has shared their experience in this respect and published guidance for schools on how to plan activities in this respect.

insolvency procedures. Strengthen the capacity of the Public Procurement Agency and contracting authorities and improve the design and control of public tendering procedures, in particular by fully implementing the National Strategy for the development of the Public Procurement Sector (2014-2020). Speed up the introduction of e-procurement.	
• Reform the insolvency framework to accelerate recovery and resolution procedures and improve their effectiveness and transparency. Increase the capacity of the courts regarding insolvency procedures.	• **Limited progress** in reforming the insolvency framework to accelerate recovery and resolution procedures as well as improving their effectiveness and transparency as well as increasing the capacity of the courts regarding insolvency procedures. The insolvency reform effort has been slow despite the high level of private sector debt and mediocre performance of the insolvency proceedings framework. Improvement efforts in the legislative as well as judicial framework do not match the size of the problem. According to the assessment of the Commission, beyond the proper implementation of the announced initiatives, further steps are needed, in particular in the judicial system. Amendments to the Commerce Act and the Pledge Registry have only recently been adopted. They will need to be complemented with improvements in the infrastructure of the judicial system and in judges' capacity to handle insolvency cases.
• Strengthen the capacity of the Public Procurement Agency and contracting authorities and improve the design and control of public tendering procedures, in particular by fully implementing the National Strategy for the development of the Public Procurement Sector (2014-2020). Speed up the introduction of e-procurement.	• **Some progress** in strengthening the capacity of the Public Procurement Agency and contracting authorities and improving the design and control of public tendering procedures […] and limited progress in speeding up the introduction of e-procurement. A number of actions have already been undertaken by the Bulgarian government. However, the majority of them is currently at an early stage of implementation, so that their practical effects still need to be seen and assessed. The authorities have only started the tendering process for the e-procurement system.

Europe 2020 (national targets and progress)	
Employment rate target: 76 %	67.1 % in 2015.
Early school leaving target: 11 %	13.4 % in 2015.
Tertiary education target: 36 %	32.1 % in 2015.
At risk of poverty target in numbers of persons: Decrease by 260 000 (baseline 2008: 1 632 000)	1 586 000 in 2015.
Greenhouse gas (GHG) emissions target: 20 % in 2020 compared to 2005 (in non-ETS sectors)	**2020 target**: 20 % According to the latest national projections submitted to the Commission and taking into account existing measures, it is expected that the target will be achieved: -5.5 % in 2020 as compared with 2005 (by a margin of 25 percentage points). **Non-ETS 2015 target**: 14 % Based on proxy data, the non-ETS greenhouse gas emissions between 2005 and 2015 decreased by -3 %; which means 17pps below the 2015 target set by the Effort Sharing Decision.
2020 Renewable energy share target: 16 %	Target achieved. In 2015, the renewable energy share stood at 18.4 %, up from 18 % in 2014 ([47]).
Energy efficiency **indicative national target**: 16.9 Mtoe in primary energy consumption 8.6 Mtoe in final energy consumption	Indicative national target not yet achieved. Bulgaria needs to increase its effort to decrease its primary and final energy consumption. In 2015 primary energy consumption stood at 17.9 Mtoe, 4% up from 17.2 Mtoe in 2014. In 2015 final energy consumption stood at 9.5 Mtoe, 6% up from 9.0 Mtoe in 2014.
R&D target: 1.5 % of GDP	0.96 % (2015)

(47) Renewable energy shares for 2015 are approximations and not official data, reflecting the available data (04.10.2016). See the Öko-Institut Report: Study on Technical Assistance in Realisation of the 2016 Report on Renewable Energy, http://ec.europa.eu/energy/en/studies

	Limited progress towards the target: R&D intensity increased from 0.79 % of GDP in 2014 to 0.96 % in 2015, among the lowest in the EU. The increase in R&D intensity is driven by business (investments by foreign companies in R&D services, and clinical trials in particular), while public R&D intensity (in the higher education sector in particular) has decreased. In 2015 R&D intensity in Bulgaria was composed of 0.25 % public R&D intensity, 0.7% business R&D intensity, and 0.01 % private non-profit R&D expenditure.

ANNEX B
MIP Scoreboard

Table B.1: **MIP scoreboard indicators**

			Thresholds	2010	2011	2012	2013	2014	2015
External imbalances and competitiveness	Current account balance, (% of GDP)	3 year average	-4%/6%	-10.7	-3.2	-0.7	0.3	0.2	0.6
	Net international investment position (% of GDP)		-35%	-91.9	-82.8	-77.9	-73.3	-75.2	-60.0
	Real effective exchange rate - 42 trading partners, HICP deflator	3 years % change	±5% & ±11%	9.7	1.9	-4.0	-1.0	-2.8	-4.1
	Export market share - % of world exports	5 years % change	-6%	8.3	11.6	-0.3	0.6	6.0	12.8
	Nominal unit labour cost index (2010=100)	3 years % change	9% & 12%	29.5	17.7	12.2p	15.6p	18.0p	14.9p
Internal imbalances	Deflated house prices (% y-o-y change)		6%	-12.3p	-8.7p	-5.3p	0.4p	1.5p	1.6bp
	Private sector credit flow as % of GDP, consolidated		14%	3.7	1.4	3.0	7.2	-1.1	-0.3
	Private sector debt as % of GDP, consolidated		133%	132.5	124.2	125.0	131.9	123.6	110.5
	General government sector debt as % of GDP		60%	15.3	15.2	16.7	17.0	27.0	26.0
	Unemployment rate	3 year average	10%	7.6i	9.5	11.3	12.2	12.2	11.2
	Total financial sector liabilities (% y-o-y change)		16.5%	-5.4	5.4	10.2	4.3	5.6	7.0
New employment indicators	Activity rate - % of total population aged 15-64 (3 years change in p.p)		-0.2%	0.4b	-1.9b	-0.1	1.7	3.1	2.2
	Long-term unemployment rate - % of active population aged 15-74 (3 years change in p.p)		0.5%	0.7	3.4	3.9	2.7	0.6	-1.2
	Youth unemployment rate - % of active population aged 15-24 (3 years change in p.p)		2%	7.8i	13.1	13.0	6.5	-1.2	-6.5

1) Unemployment rate: for 2010 i = Eurostat back-calculation to include 2011 Population Census results. 2) Youth unemployment rate: for 2010 i = Eurostat back-calculation to include 2011 Population Census result
Source: European Commission; IMF

ANNEX C

Standard Tables

Table C.1: **Financial market indicators**

	2011	2012	2013	2014	2015	2016
Total assets of the banking sector (% of GDP)	102.1	108.2	112.9	110.8	107.3	108.7
Share of assets of the five largest banks (% of total assets)	52.6	50.4	49.9	55.0	57.6	-
Foreign ownership of banking system (% of total assets)	75.0	73.0	69.6	75.5	75.4	-
Financial soundness indicators:[1]						
- non-performing loans (% of total loans)	19.7	19.8	18.6	14.4	13.0	12.3
- capital adequacy ratio (%)	17.6	16.6	17.0	21.5	21.6	22.2
- return on equity (%)[2]	4.7	4.7	4.4	7.2	8.0	7.0
Bank loans to the private sector (year-on-year % change)	3.8	3.5	1.1	2.2	-0.3	3.1
Lending for house purchase (year-on-year % change)	1.3	1.0	-0.8	-1.7	-0.7	2.3
Loan to deposit ratio	107.6	102.4	94.1	86.0	77.5	75.3
Central Bank liquidity as % of liabilities	0.0	0.0	0.0	0.0	0.0	0.0
Private debt (% of GDP)	124.2	125.0	131.9	123.6	110.5	-
Gross external debt (% of GDP)[1] - public	6.7	8.3	8.1	14.1	12.3	14.2
- private	66.2	66.1	65.9	65.4	54.0	52.3
Long-term interest rate spread versus Bund (basis points)*	274.8	300.3	190.3	218.4	199.6	223.9
Credit default swap spreads for sovereign securities (5-year)*	248.6	227.7	102.1	119.4	153.8	139.0

1) Latest data Q2 2016.
2) Quarterly values are not annualised
* Measured in basis points.
Source: European Commission (long-term interest rates); World Bank (gross external debt); Eurostat (private debt); ECB (all other indicators)

Table C.2: **Labour market and social indicators**

Table II. Labour market and social indicators

	2011	2012	2013	2014	2015	2016 [4]
Employment rate (% of population aged 20-64)	62.9	63.0	63.5	65.1	67.1	67.7
Employment growth (% change from previous year)	-2.2	-2.5	-0.4	0.4	0.4	0.6
Employment rate of women (% of female population aged 20-64)	59.8	60.2	60.7	62.0	63.8	64.1
Employment rate of men (% of male population aged 20-64)	66.0	65.8	66.4	68.1	70.4	71.2
Employment rate of older workers (% of population aged 55-64)	44.6	45.7	47.4	50.0	53.0	54.4
Part-time employment (% of total employment, aged 15-64)	2.2	2.2	2.5	2.5	2.2	1.9
Fixed-term employment (% of employees with a fixed term contract, aged 15-64)	4.0	4.4	5.6	5.3	4.4	4.2
Transitions from temporary to permanent employment	38.6	40.9	24.5	29.2	33.1	:
Unemployment rate[1] (% active population, age group 15-74)	11.3	12.3	13.0	11.4	9.2	7.8
Long-term unemployment rate[2] (% of labour force)	6.3	6.8	7.4	6.9	5.6	4.7
Youth unemployment rate (% active population aged 15-24)	25.0	28.1	28.4	23.8	21.6	17.8
Youth NEET[3] rate (% of population aged 15-24)	21.8	21.5	21.6	20.2	19.3	:
Early leavers from education and training (% of pop. aged 18-24 with at most lower sec. educ. and not in further education or training)	11.8	12.5	12.5	12.9	13.4	:
Tertiary educational attainment (% of population aged 30-34 having successfully completed tertiary education)	27.3	26.9	29.4	30.9	32.1	:

1 Unemployed persons are all those who were not employed but had actively sought work and were ready to begin working immediately or within 2 weeks.
2 Long-term unemployed are peoples who have been unemployed for at least 12 months.
3 Not in education employment or training.
4 Average of first three quarters of 2016. Data for total unemployment and youth unemployment rates are seasonally adjusted.
Source: European Commission (EU Labour Force Survey).

Table C.3: **Labour market and social indicators (continued)**

Expenditure on social protection benefits (% of GDP)	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Sickness/healthcare	4,0	4,2	4,2	4,4	4,9	:
Disability	1,3	1,2	1,2	1,4	1,4	:
Old age and survivors	8,5	8,0	8,0	8,6	8,9	:
Family/children	1,9	1,7	1,7	1,8	1,9	:
Unemployment	0,6	0,6	0,6	0,5	0,5	:
Housing	0,0	0,0	0,0	0,0	0,0	:
Social exclusion n.e.c.	0,3	0,2	0,2	0,3	0,3	:
Total	16,5	15,9	16,0	16,9	17,9	:
of which: means-tested benefits	0,7	0,7	0,7	0,7	0,8	:
Social inclusion indicators	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
People at risk of poverty or social exclusion[1] (% of total population)	49,2	49,1	49,3	48,0	40,1	41,3
Children at risk of poverty or social exclusion (% of people aged 0-17)	49,8	51,8	52,3	51,5	45,2	43,7
At-risk-of-poverty rate[2] (% of total population)	20,7	22,2	21,2	21,0	21,8	22,0
Severe material deprivation rate[3] (% of total population)	45,7	43,6	44,1	43,0	33,1	34,2
Proportion of people living in low work intensity households[4] (% of people aged 0-59)	8,0	11,0	12,5	13,0	12,1	11,6
In-work at-risk-of-poverty rate (% of persons employed)	7,7	8,2	7,4	7,2	9,2	7,7
Impact of social transfers (excluding pensions) on reducing poverty	23,6	19,0	18,1	21,3	20,1	22,5
Poverty thresholds, expressed in national currency at constant prices[5]	2869	2690	2553	2549	2875	2941
Gross disposable income (households; growth %)	0,6	6,6	1,2	2,5	-7,2	1,4
Inequality of income distribution (S80/S20 income quintile share ratio)	5,9	6,5	6,1	6,6	6,8	7,1
GINI coefficient before taxes and transfers	46,5	46,3	47,0	47,7	49,7	50,2
GINI coefficient after taxes and transfers	33,3	34,9	33,6	35,4	35,4	37,0

1 People at risk of poverty or social exclusion (AROPE): individuals who are at risk of poverty (AROP) and/or suffering from severe material deprivation (SMD) and/or living in households with zero or very low work intensity (LWI).
2 At-risk-of-poverty rate (AROP): proportion of people with an equivalised disposable income below 60 % of the national equivalised median income.
3 Proportion of people who experience at least four of the following forms of deprivation: not being able to afford to i) pay their rent or utility bills, ii) keep their home adequately warm, iii) face unexpected expenses, iv) eat meat, fish or a protein equivalent every second day, v) enjoy a week of holiday away from home once a year, vi) have a car, vii) have a washing machine, viii) have a colour TV, or ix) have a telephone.
4 People living in households with very low work intensity: proportion of people aged 0-59 living in households where the adults (excluding dependent children) worked less than 20 % of their total work-time potential in the previous 12 months.
5 For EE, CY, MT, SI and SK, thresholds in nominal values in euros; harmonised index of consumer prices (HICP) = 100 in 2006 (2007 survey refers to 2006 incomes)
Source: For expenditure for social protection benefits ESSPROS; for social inclusion EU-SILC.

Table C.4: **Product market performance and policy indicators**

Performance indicators	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Labour productivity (real, per person employed, year-on-year % change)						
Labour productivity in industry	5.51	7.61	3.06	4.95	0.69	2.28
Labour productivity in construction	0.98	9.13	0.26	5.05	-2.43	0.35
Labour productivity in market services	8.55	3.91	0.21	2.06	1.07	3.63
Unit labour costs (ULC) (whole economy, year-on-year % change)						
ULC in industry	6.68	-2.42	2.58	1.53	6.15	0.66
ULC in construction	4.02	-2.03	3.33	2.09	12.32	4.57
ULC in market services	0.79	4.75	9.94	2.51	5.67	3.33
Business environment	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Time needed to enforce contracts[1] (days)	564.0	564.0	564.0	564.0	564.0	564.0
Time needed to start a business[1] (days)	25.0	25.0	25.0	25.0	25.0	25.0
Outcome of applications by SMEs for bank loans[2]	na	0.59	na	0.86	0.97	0.54
Research and innovation	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
R&D intensity	0.56	0.53	0.60	0.63	0.79	0.96
Total public expenditure on education as % of GDP, for all levels of education combined	4.10	3.82	3.68	4.27	na	na
Number of science & technology people employed as % of total employment	28	28	29	31	32	33
Population having completed tertiary education[3]	20	20	21	22	24	24
Young people with upper secondary education[4]	86	87	86	86	86	85
Trade balance of high technology products as % of GDP	na	na	-3.50	na	-2.56	-2.38
Product and service markets and competition				**2003**	**2008**	**2013**
OECD product market regulation (PMR)[5], overall				na	na	1.57
OECD PMR[5], retail				na	na	0.20
OECD PMR[5], professional services				na	na	na
OECD PMR[5], network industries[6]				na	na	2.45

1 The methodologies, including the assumptions, for this indicator are shown in detail at: http://www.doingbusiness.org/methodology.
2 Average of the answer to question Q7B_a. "[Bank loan]: If you applied and tried to negotiate for this type of financing over the past six months, what was the outcome?". Answers were codified as follows: zero if received everything, one if received most of it, two if only received a limited part of it, three if refused or rejected and treated as missing values if the application is still pending or don't know.
3 Percentage population aged 15-64 having completed tertiary education.
4 Percentage population aged 20-24 having attained at least upper secondary education.
5 Index: 0 = not regulated; 6 = most regulated. The methodologies of the OECD product market regulation indicators are shown in detail here: http://www.oecd.org/competition/reform/indicatorsofproductmarketregulationhomepage.htm
6 Aggregate OECD indicators of regulation in energy, transport and communications (ETCR).
Source: European Commission; World Bank — Doing Business (for enforcing contracts and time to start a business); OECD (for the product market regulation indicators); SAFE (for outcome of SMEs' applications for bank loans).

Table C.5: **Green growth**

Green growth performance		2010	2011	2012	2013	2014	2015
Macroeconomic							
Energy intensity	kgoe / €	0,46	0,49	0,47	0,43	0,45	0,45
Carbon intensity	kg / €	2,11	2,25	2,08	1,89	1,94	-
Resource intensity (reciprocal of resource productivity)	kg / €	4,26	4,63	4,55	4,38	4,74	4,82
Waste intensity	kg / €	5,91	-	5,58	-	6,08	-
Energy balance of trade	% GDP	-5,7	-6,3	-6,9	-6,2	-5,7	-
Weighting of energy in HICP	%	14,08	11,94	13,67	15,01	14,05	13,06
Difference between energy price change and inflation	%	-3,7	-0,4	6,5	-2,9	-1,3	6,2
Real unit of energy cost	% of value added	32,8	35,2	37,3	35,8	36,4	-
Ratio of environmental taxes to labour taxes	ratio	0,32	0,32	0,31	0,30	0,28	-
Environmental taxes	% GDP	2,8	2,7	2,7	2,8	2,7	-
Sectoral							
Industry energy intensity	kgoe / €	0,50	0,49	0,47	0,46	0,46	0,45
Real unit energy cost for manufacturing industry excl. refining	% of value added	65,8	61,0	57,8	65,4	65,8	-
Share of energy-intensive industries in the economy	% GDP	11,68	12,46	12,50	12,63	10,40	-
Electricity prices for medium-sized industrial users	€ / kWh	0,07	0,07	0,07	0,08	0,08	0,07
Gas prices for medium-sized industrial users	€ / kWh	0,03	0,03	0,04	0,04	0,03	0,03
Public R&D for energy	% GDP	0,00	0,00	0,00	0,00	0,00	0,00
Public R&D for environmental protection	% GDP	0,01	0,01	0,01	0,00	0,00	0,00
Municipal waste recycling rate	%	24,5	26,2	25,0	28,5	23,1	29,4
Share of GHG emissions covered by ETS*	%	58,6	63,8	60,7	59,5	60,0	60,8
Transport energy intensity	kgoe / €	1,91	2,12	2,36	2,02	2,09	2,11
Transport carbon intensity	kg / €	5,34	5,90	6,47	5,40	5,72	-
Security of energy supply							
Energy import dependency	%	39,6	36,0	36,1	37,7	34,5	35,4
Aggregated supplier concentration index	HHI	66,2	71,9	77,2	65,5	60,3	-
Diversification of energy mix	HHI	0,27	0,29	0,27	0,25	0,26	-

All macro intensity indicators are expressed as a ratio of a physical quantity to GDP (in 2005 prices)
Energy intensity: gross inland energy consumption (in kgoe) divided by GDP (in EUR)
Carbon intensity: greenhouse gas emissions (in kg CO_2 equivalents) divided by GDP (in EUR)
Resource intensity: domestic material consumption (in kg) divided by GDP (in EUR)
Waste intensity: waste (in kg) divided by GDP (in EUR)
Energy balance of trade: the balance of energy exports and imports, expressed as % of GDP
Weighting of energy in HICP: the proportion of "energy" items in the consumption basket used for the construction of the HICP
Difference between energy price change and inflation: energy component of HICP, and total HICP inflation (annual % change)
Real unit energy cost: real energy costs as a percentage of total value added for the economy
Environmental taxes over labour taxes and GDP: from European Commission's database, 'Taxation trends in the European Union'
Industry energy intensity: final energy consumption of industry (in kgoe) divided by gross value added of industry (in 2005 EUR)
Real unit energy costs for manufacturing industry excluding refining : real costs as a percentage of value added for manufacturing sectors
Share of energy-intensive industries in the economy: share of gross value added of the energy-intensive industries in GDP
Electricity and gas prices for medium-sized industrial users: consumption band 500–20 00MWh and 10 000–100 000 GJ; figures excl. VAT.
Recycling rate of municipal waste: ratio of recycled and composted municipal waste to total municipal waste
Public R&D for energy or for the environment: government spending on R&D for these categories as % of GDP
Proportion of greenhouse gas (GHG) emissions covered by EU Emissions Trading System (ETS) (excluding aviation): based on greenhouse gas emissions (excl land use, land use change and forestry) as reported by Member States to the European Environment Agency
Transport energy intensity: final energy consumption of transport activity (kgoe) divided by transport industry gross value added (in 2005 EUR)
Transport carbon intensity: greenhouse gas emissions in transport activity divided by gross value added of the transport sector
Energy import dependency: net energy imports divided by gross inland energy consumption incl. consumption of international bunker fuels
Aggregated supplier concentration index: covers oil, gas and coal. Smaller values indicate larger diversification and hence lower risk.
Diversification of the energy mix: Herfindahl index over natural gas, total petrol products, nuclear heat, renewable energies and solid fuels
Source: European Commission; * European Commission and European Environment Agency

REFERENCES

BNB, Bulgarian National Bank (2016a), *Economic Review, 03/2016,* available at: http://www.bnb.bg/bnbweb/groups/public/documents/bnb_publication/pub_ec_r_2016_03_en.pdf

BNB, Bulgarian National Bank (2016b), *Report on the Asset Quality Review and Stress Test of the Bulgarian Banking System*, available at: http://www.bnb.bg/bnbweb/groups/public/documents/bnb_download/bs_aqr_results_a1_en.pdf

BNB, Bulgarian National Bank (2016c), *Report on the Asset Quality Review and Stress Test of the Bulgarian Banking System; individual bank data*, available at: http://www.bnb.bg/bnbweb/groups/public/documents/bnb_download/bs_aqr_results_a2_en.pdf

BNB, Bulgarian National Bank (2016d), *Annual Review of the Implementation of the Plan on Reforms and Development of Banking Supervision*, available at: http://www.bnb.bg/bnbweb/groups/public/documents/bnb_pressrelease/pr_20161103_a1_en.pdf

Bulgarian Medical Association (2016), *Presentation*, available at: http://www.blsbg.com/images/Documents/zeva_presentacia_dr_grozev.ppt

CASE at al. (2016), *Study and Reports on the VAT Gap in the EU-28 Member States: 2016 Final Report,* TAXUD/2015/CC/131, available at: https://ec.europa.eu/taxation_customs/sites/taxation/files/2016-09_vat-gap-report_final.pdf

Cedefop (2016), *EU Skills Panorama*, available at: http://skillspanorama.cedefop.europa.eu/en/countries/bulgaria

Eurofound (2016), *Exploring the diversity of NEETs*, available at: http://www.eurofound.europa.eu/sites/default/files/ef_publication/field_ef_document/ef1602en.pdf

European Commission (2017a), *Consumer Conditions Scoreboard* (forthcoming)

European Commission (2017b), *Report on the progress of Bulgaria under the Cooperation and verification Mechanism*, COM (2017) 43 final, available at: https://ec.europa.eu/info/effective-justice/rule-law/assistance-bulgaria-and-romania-under-cvm/reports-progress-bulgaria-and-romania_en

European Commission (2017c), *EU Justice Scoreboard,* (forthcoming)

European Commission (2016a), *Taxation trends in the EU*, available at: https://ec.europa.eu/taxation_customs/business/economic-analysis-taxation/taxation-trends-eu-union_en

European Commission (2016b), *EU Tax Policies: 2016 Scoreboard, Publications Office of the European Union, Luxembourg*

European Commission (2016c), *Excise Duty Tables. Part II – Energy Products and Electricity*. Ref. 1047 rev. July 2016, available at: http://ec.europa.eu/taxation_customs/sites/taxation/files/resources/documents/taxation/excise_duties/energy_products/rates/excise_duties-part_ii_energy_products_en.pdf

European Commission (2016d) *European Business and Consumer Survey*, available at: http://ec.europa.eu/economy_finance/db_indicators/surveys/index_en.htm

European Commission (2016e), *Country Report Bulgaria 2016*, SWD (2016) 72 final, available at: http://ec.europa.eu/europe2020/pdf/csr2016/cr2016_bulgaria_en.pdf

European Commission (2016f), *Eurostat Community Survey on ICT usage*, available at: http://ec.europa.eu/eurostat/statistics-explained/index.php/Glossary:Community_survey_on_ICT_usage_in_households_and_by_individuals

European Commission (2016g) *European Innovation Scoreboard*, available at: http://ec.europa.eu/growth/industry/innovation/facts-figures/scoreboards_en

European Commission (2016h), *EU Single Market Scoreboard* (forthcoming)

European Commission (2015a), *Challenges to Member States' Investment Environments,* Staff working document, available at: http://ec.europa.eu/europe2020/pdf/2016/ags2016_challenges_bulgaria_en.pdf

European Commission (2015b), *The Digital Scoreboard,* available at: https://ec.europa.eu/digital-single-market/en/digital-scoreboard

European Commission (2015c), *Country Report Bulgaria 2015*, SWD (2015) 22 final, available at: http://ec.europa.eu/europe2020/pdf/csr2015/cr2015_bulgaria_en.pdf

European Commission (2015d*), Peer Review of the Bulgarian Research and Innovation system*, available at: https://rio.jrc.ec.europa.eu/en/policy-support-facility/peer-review-bulgarian-research-and-innovation-system

European Commission (2015e), *Businesses' attitudes towards corruption in the EU: Summary*, Flash Eurobarometer 428, http://ec.europa.eu/COMMFrontOffice/publicopinion/index.cfm/Survey/getSurveyDetail/instruments/FLASH/surveyKy/2084

European Commission and the Economic Policy Committee (2016), *Joint Report on Health Care and Long-Term Care Systems & Fiscal Sustainability*

Eurostat (2016), *EU statistics on income and living conditions (EU-SILC)*, available at: http://ec.europa.eu/eurostat/statistics-explained/index.php/EU_statistics_on_income_and_living_conditions_(EU-SILC)_methodology_-_introduction

European Commission and Economic Policy Committee (2016), *Joint Report on Health Care and Long-Term Care Systems & Fiscal Sustainability*, available at: http://ec.europa.eu/info/publications/joint-report-health-care-and-long-term-care-systems-fiscal-sustainability-0_en

EIOPA, European Insurance and Occupational Pensions Authority (2017), *Balance Sheet Review of the Bulgarian Insurance Sector,* available at: https://eiopa.europa.eu/publications/other-documents

FRA, European Union Agency for Fundamental Rights (2016), *Second European Union Minorities and Discrimination Survey ,EU-MIDIS II: Roma – Selected findings*, available at: http://fra.europa.eu/en/publication/2016/eumidis-ii-roma-selected-findings

GEM (2016), *2015/16 GEM National report on entrepreneurship in Bulgaria* available at: http://gemorg.bg/reports/national-report/2015-16-gem-bulgaria-annual-report-on-entrepreneurship/

IMF (2015), *A Strategy for Resolving Europe's Problem Loans*, Staff Discussion Note No. 15/19, available at: https://www.imf.org/external/pubs/ft/sdn/2015/sdn1519.pdf

IMF (2016), *Article IV consultation - Bulgaria, Staff Report*, available at: https://www.imf.org/external/pubs/ft/scr/2016/cr16344.pdf

Manpower Group (2016), *Talent shortage survey 2016-2017*, available at: http://www.manpowergroup.com/talent-shortage-2016.

Ministry of Finance – Bulgaria (2016), *Report on the implementation of the Strategy and the Action plan 2015-2017*, available at: www.minfin.bg/document/17983:2.

NSI, National Statistical Institute (2016), *Housing Price Statistics,* available at: http://www.nsi.bg/en/content/13023/housing-price-statistics

OECD/EU (2016), *Health at a Glance: Europe 2016 – State of Health in the EU Cycle*, available at: https://ec.europa.eu/health/state/glance_en

OECD (2015), *PISA 2015, Results in Focus*, available at https://www.oecd.org/pisa/pisa-2015-results-in-focus.pdf

PWC (2016), *Paying Taxes 2016*, available at: http://www.pwc.com/gx/en/paying-taxes-2016/paying-taxes-2016.pdf

Public Procurement Agency et al. (2016), *Report on the state of the procurement appeal system*

Roma Decade (2015), Roma Inclusion Index 2015, available at: http://www.romadecade.org/news/roma-inclusion-index-2015/9810

The Heritage Foundation (2016), *Index of economic freedom Report*, available at: http://www.heritage.org/index/

World Bank (2017), *Portraits of Labour Market Exclusion 2.0* (forthcoming)

World Bank (2016a), *The Worldwide Governance Indicators*, WGI project, available at: http://data.worldbank.org/data-catalog/worldwide-governance-indicators

World Bank (2016b), *Doing Business 2017*, available at: http://www.doingbusiness.org/reports/global-reports/doing-business-2017

World Bank (2015), *Productivity in Bulgaria, Trends and Options*, available at: https://www.worldbank.org/en/news/feature/2015/06/30/boosting-productivity-in-bulgaria-mission-possible

World Bank (2011), *Roma Inclusion is Smart Economics - Illustrations from Bulgaria, Czech Republic, Romania and Serbia,* available at: http://documents.worldbank.org/curated/en/509711468261335080/Roma-inclusion-is-smart-economics-illustrations-from-Bulgaria-Czech-Republic-Romania-and-Serbia

World Economic Forum (2016a), *Global Competitiveness Index 2016-2017*, available at: https://www.weforum.org/reports/the-global-competitiveness-report-2016-2017-1

World Economic Forum (2016b), *Executive Opinion Survey*, available at: http://reports.weforum.org/global-risks-2017/appendix-c-the-executive-opinion-survey-2016-views-of-the-business-community-on-the-global-risks-of-highest-concern-for-doing-business/