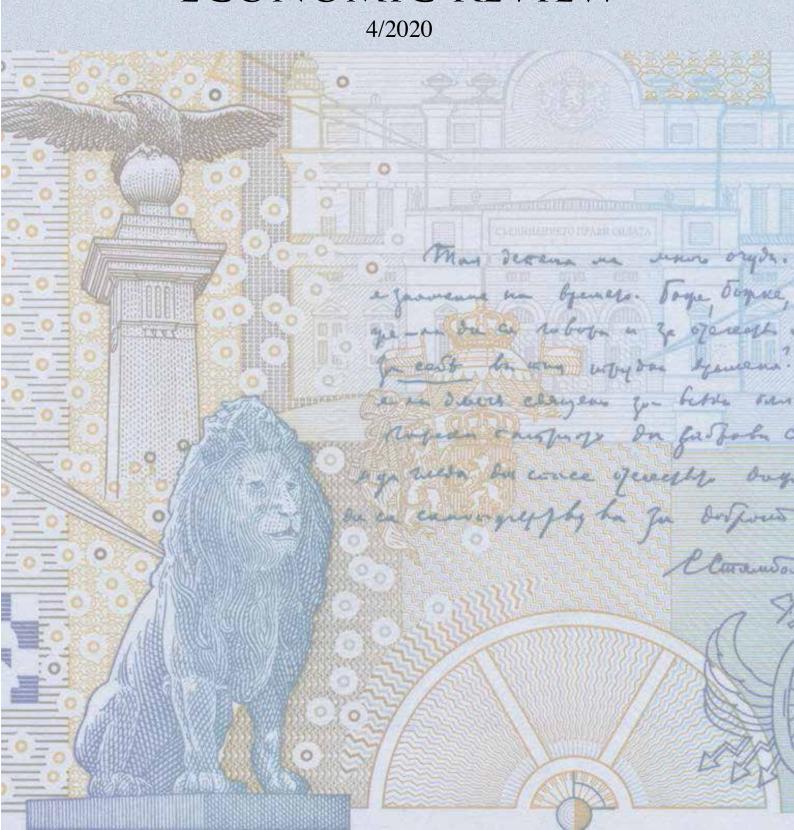
BULGARIAN NATIONAL BANK



ECONOMIC REVIEW



ECONOMIC REVIEW 4/2020



The BNB quarterly Economic Review presents information and analysis of balance of payments dynamics, monetary and credit aggregates, their link with the development of the real economy, and their bearing on price stability. External environment developments are also analysed since they directly affect the Bulgarian economy. The Review contains quantitative assessments of short-run developments in major macroeconomic indicators like inflation, economic growth, exports, imports, trade balance and the balance of payments current account, foreign direct investment, monetary and credit aggregates dynamics.

The Economic Review, issue 4/2020 was presented to the BNB Governing Council at its 11 February 2021 meeting. It employs statistical data published up to 15 January 2021. Expectations of economic trends in Bulgaria in the short term (until the second quarter of 2021), as described in this document, are based on the BNB macroeconomic forecast prepared as of 22 December 2020. These expectations are founded on the assumption that the measures imposed in the fourth quarter of 2020 to contain to spread of COVID-19 in other EU countries and Bulgaria would be extended until the end of the first quarter of 2021.

The estimates and projections published in this issue should not be regarded as advice or recommendation. Exclusively the information user is liable for any consequences thereof.

The Economic Review is available on the BNB website, Research and Publications menu, Periodical Publications sub-menu. Please address notes, comments and suggestions to the BNB Economic Research and Projections Directorate at 1000 Sofia, 1, Knyaz Alexander I Square.

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This issue includes materials and data received up to 16 February 2021.

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ISSN 2367 - 4962 (online)

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ABBREVIATIONS

ABSPP Asset-Backed Securities Purchase Programme

APP Asset Purchase Programme
APRC Annual percentage rate of charge

BIR Base interest rate
BOP Balance of Payments

BTC Bulgarian Telecommunications Company

b.p. basis points

CBPP3 Covered Bond Purchase Programme
CEECs Central and East European countries
CEFTA Central European Free Trade Association
CFP Consolidated Fiscal Programme

CIF Cost, insurance, freight CNY Chinese Yuan

CPI Consumer Price Index

DXY an index measuring the exchange rate of the US dollar against the

basket of six major currencies

EA Employment Agency
EC European Commission
ECB European Central Bank
EIB European Investment Bank
EMBI Emerging Markets Bond Index
EONIA Euro OverNight Index Average

ESA 2010 European System of National and Regional Accounts

EU European Union

EURIBOR Euro Interbank Offered Rate

EWRC Energy and Water Regulatory Commission

FDI Foreign Direct Investment

FOB Free on Board

FRS Federal Reserve System
GDP Gross Domestic Product
GFMS Gold Fields Mineral Services

HICP Harmonized Index of Consumer Prices

HRW Hard Red Wheat HUF Hungarian forint

IEA International Energy Agency
IMF International Monetary Fund
ISM Institute for Supply Management
LEONIA LEV OverNight Index Average
LIBOR London Interbank Offered Rate

M1 narrow money
M2 M1 and quasi-money
M3 broad money
MF Ministry of Finance

MFIs Monetary Financial Institutions

mt metric tons

NPISHs Non-profit institutions serving households

NSI National Statistical Institute

OPEC Organization of Petroleum Exporting Countries

OTC over-the-counter
PBoC People's Bank of China

PEPP Pandemic Emergency Purchase Programme

PELTRO Pandemic Emergency Longer-Term Refinancing Operations

PMI Purchasing Managers' Index p.p. percentage points PPP Purchasing Power Parity

PSPP Public Sector Purchase Programme

RON Romanian new leu

SITC Standard International Trade Classification

WTI West Texas Intermediate €STR Euro Short-Term Rate

Summary

In the fourth quarter global PMIs increased further, indicating a continued recovery of global economic activity despite the higher incidence rate of COVID-19 cases in some of the largest developed economies. Global PMI growth, most pronounced in manufacturing, was driven by the developments in large developing market economies with lower incidence and in the USA, where the economic indicators continued to show an upward trend in economic activity, irrespective of the re-introduction of containment measures related to the sharp rise of COVID-19 cases over the review period. In the euro area, the composite PMIs fell below the 50 percentage point level, largely due to the contraction of economic activity in the services sector, as the second wave of COVID-19 spread resulted in tightening of containment measures. Inflation in developed economies stabilised at levels close to zero on an annual basis, reflecting relatively subdued household consumption as a result of the sustained high uncertainty about employment prospects and temporary cuts of indirect taxes in some countries. Downward inflation dynamics and the deteriorated economic environment in the euro area over the last months of 2020 were among the main grounds of the ECB Governing Council's December decision to initiate additional monetary policy measures aiming to retain favourable financing conditions in the economy. The US Federal Reserve made no changes, but was committed to maintaining its accommodative monetary policy for an extended period.

Given the continuing partial recovery of global economic activity, the decline on an annual basis in external demand for Bulgarian goods and services is expected to shrink in the first quarter of 2021 but to post an increase in the second quarter of the year. This forecast is based on the assumption that containment measures imposed in the fourth quarter of 2020 in other EU countries and Bulgaria would be extended until the end of the first quarter of 2021.

Between January and October 2020 the current and capital account surplus decreased significantly from the corresponding period of 2019, reflecting largely the decline in net revenue from tourist and transport services, which are among the sectors most severely hit by the spread of COVID-19. At the end of the first half of 2021 the positive current and capital account balance is expected to increase on an annual basis from the end of 2020 due mainly to the projection for higher capital transfers to Bulgaria under EU operational programmes to address the consequences of COVID-19.

Non-government sector deposits in the banking system continued growing at comparatively high rates in the September–November 2020 period driven by both the precautionary savings maintained by economic agents amid the uncertain macroeconomic environment caused by the pandemic outbreak and the ongoing postponement of consumption on the part of households and limited investment activity of corporations. The downward trend in the annual growth rate of loans to non-financial corporations and households was sustained, reflecting both demand and supply factors. In the first half of 2021 deposit growth rates are expected to remain comparatively high. Additional moderation in credit growth to non-financial corporations and households may be expected from the second quarter of 2021, reflecting the gradual expiry of the extended moratorium period on bank loan repayments and the assumed repayment of a portion of deferred loans. Following the expiry of the deadline for deferring obligations of bank clients, an increase in the share of non-performing loans in bank portfolios can be expected, which will probably lead to a rise in interest rates on newly extended loans.

In the third quarter of 2020 Bulgaria's real GDP rose by 4.3 per cent on a quarterly basis driven by the growth in all domestic demand components, while the contribution of net exports was strongly negative. The easing of containment measures in other EU countries and Bulgaria along with the targeted fiscal measures introduced to support vulnerable households and firms were among the main factors for the quarter-on-quarter real GDP growth in the third quarter of the year. During the review period labour market conditions improved compared to the second quarter: slowdown in the quarterly decrease of

7 Summary

employment and a decline in the unemployment rate, as well as an increase in the nominal compensation of employees were observed. In the fourth quarter short-term economic indicators gave signs of maintaining the economic activity close to the previous quarter's level. The major factors, which will have a limiting effect on the real GDP dynamics in the last quarter of 2020, are the increased number of new COVID-19 cases in Bulgaria and re-tightening of containment measures. If the assumptions of extending the anti-epidemic measures in Bulgaria and Bulgaria's major trading partners until the end of the first quarter of 2021 materialise, the economic activity is expected to gradually recover on a quarterly basis, with the recovery being more pronounced in the second quarter of the year.

In November annual inflation slowed down significantly compared with end-2019, reaching 0.3 per cent. All major commodity and services sub-groups contributed to the lower inflation, with the slowdown reflecting mostly the strong price fall in energy products as a result of the downward dynamics of international oil prices on an annual basis. Core inflation also slowed down from the end of the previous year due to negative effects of containment measures on domestic demand. The lower inflation in the group of unprocessed food was mainly driven by the meat and meat products group due to the gradually exhausting effect of the sharp price hike in 2019 after the African swine fever spread worldwide and in Bulgaria. In the first and second quarters of 2021 inflation is expected to gradually accelerate, reflecting largely the expectations of an upward dynamics of international food and oil prices over this period compared with the end of 2020. Core inflation is anticipated to remain close to that at the end of 2020 due mostly to the assumptions of extending the anti-epidemic measures in Bulgaria until the end of the first quarter of 2021, which will continue to limit final consumer expenditure of households, in particular in services.

1. External environment

In the fourth quarter global PMIs increased further, indicating a continued recovery of global economic activity despite the higher incidence rate of COVID-19 cases in some of the largest developed economies. Global PMI growth, most pronounced in manufacturing, was driven by the developments in large developing market economies with lower incidence and in the USA, where the economic indicators continued to show an upward trend in economic activity, irrespective of the re-introduction of containment measures related to the sharp rise of COVID-19 cases over the review period. In the euro area, the composite PMIs fell below the 50 percentage point level, largely due to the contraction of economic activity in the services sector, as the second wave of COVID-19 spread resulted in tightening of containment measures.

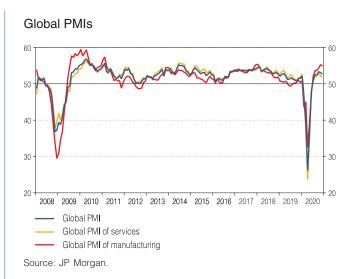
Inflation in developed economies stabilised at levels close to zero on an annual basis, reflecting relatively subdued household consumption as a result of the sustained high uncertainty about employment prospects and temporary cuts of indirect taxes in some countries. Downward inflation dynamics and the deteriorated economic environment in the euro area over the last months of 2020 were among the main grounds of the ECB Governing Council's December decision to initiate additional stimulating monetary policy measures aiming to retain favourable financing conditions in the economy. The US Federal Reserve made no changes, but was committed to maintaining its accommodative monetary policy for an extended period.

Given the continuing partial recovery of global economic activity, the decline on an annual basis in external demand for Bulgarian goods and services is expected to shrink in the first quarter of 2021 and to post a significant increase in the second quarter of the year. This forecast is based on the assumption that containment measures imposed in the fourth quarter of 2020 in other EU countries and Bulgaria would be extended until the end of the first quarter of 2021.

Current Business Situation

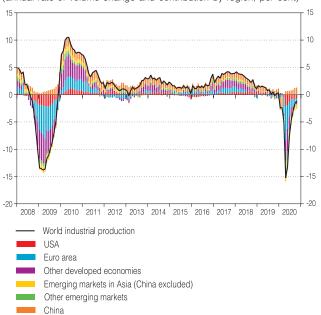
In the fourth guarter of 2020 the global economic indicator (global PMI) showed an ongoing recovery of the global economic activity at rates slightly exceeding those in the preceding quarter. Having reached its highest value of 53.3 points for 2020 in October, the global PMI declined in November and December to 52.7 points at year-end. The large emerging market economies, such as China, India and Brazil, and countries with developed markets, such as the USA and Canada, contributed most significantly to the recovery. Concurrently, the economic activity declined in EU Member States (more strongly in Italy, Spain, France) and Japan. The economic activity fall in the euro area was attributable mainly to the strict anti-epidemic measures due to a strong increase in COVID-19 cases and deaths in the fourth guarter of 2020.

Across economic sectors, PMIs suggested stronger global economic activity growth in industry than in services. The difference in the two sectors reflected the adaptation of anti-epidemic measures to increasing COVID-19



Global Industrial Production

(annual rate of volume change and contribution by region, per cent)



Source: CPB Netherlands Bureau for Economic Policy Analysis.

cases, with the social distance measures having a much stronger limiting effect on businesses in the services sector.

In the May-October 2020 period the fall in the volume of global industrial production slowed down on an annual basis¹, following the historically highest annual decline recorded in April. This trend was most strongly pronounced in advanced economies. China alone reported an accelerating growth rate of industrial production over the review period in line with the faster economic recovery from the coronavirus crisis.

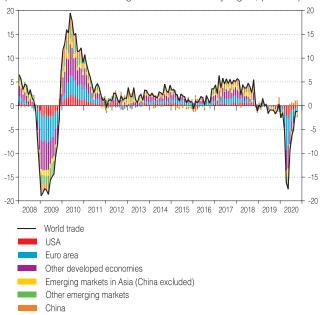
The downward trend in the rate of decline in world trade² continued and in October it was -1.1 per cent. Similar to the dynamics in industrial production, world trade developments were driven mainly by the lower contribution of advanced economies.

In November global inflation³ moderated to 1.5 per cent, from 1.7 per cent on average in the third quarter. The slowdown in annual inflation in November 2020 was more strongly pronounced in emerging market economies, while in advanced economies it stabilised at levels close to zero. Low inflation in advanced economies

¹ CPB Netherlands Bureau for Economic Policy Analysis data as of 22 December 2020.

World Trade

(annual rate of volume change and contribution by region, per cent)



Source: CPB Netherlands Bureau for Economic Policy Analysis.

Inflation Measured through CPI

(per cent, on an annual basis, seasonally adjusted data)



Notes: The World Bank measures the change of CPI in individual groups as a weighted average of CPI changes in the countries of the group. Real GDP based on purchasing power parity is used to calculate country weights. Groups include only World Bank Member States classified by the World Bank as emerging market economies and developed economies.

Source: the World Bank.

² CPB Netherlands Bureau for Economic Policy Analysis data as of 22 December 2020.

³ Based on the World Bank data as of 15 January 2021.

reflected comparatively subdued household consumption amid a heightened uncertainty surrounding employment prospects and temporary cuts of indirect taxes in some countries.

In line with the indications of the international environment, the annual rate of decline in external demand for Bulgarian goods and services is expected to moderate in the first quarter of 2021 and to post an increase in the second quarter of the year. This forecast is based on the assumption that containment measures imposed in the fourth quarter of 2020 in other EU Member States and in Bulgaria would be extended until the end of the first quarter of 2021.

Euro Area

Over the third quarter of 2020 euro area real GDP grew by 12.5 per cent quarter on quarter following the severe drop of -11.7 per cent in the April–June period. The GDP component, which contributed most substantially to the recovery of quarterly growth, was private consumption, with investment, net exports and government consumption contributing less to quarter-on-quarter growth of GDP. Changes in inventories contributed negatively to GDP dynamics on a quarterly basis.

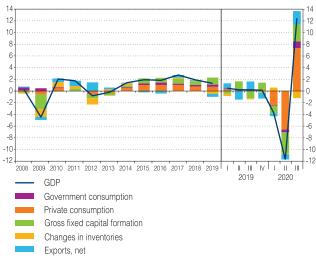
The four largest euro area economies reported significant growth in real GDP on a quarterly basis, with France posting the strongest increase (18.7 per cent).

The composite PMI in the euro area fell below the 50 percentage point limit in November due largely to the contraction of economic activity in the services sector. In December 2020 the indicator was 49.1 per cent against 50.4 per cent in September. The decline was a result of the new wave of COVID-19 in the fourth quarter of 2020 and the anti-epidemic measures initiated in the euro area countries. The dynamics across sectors was divergent: the sub-index of services fell to 46.4 points from September and that of production rose to 55.2 points.

The programmes encouraging employment in the euro area countries continued to partially mitigate the negative effects of the COVID-19 crisis. Concurrently, the unemployment rate in the euro area fell to 8.3 per cent in November, from 8.5 per cent in September but consumer expectations of the unemployment rate over the

Contribution to the Change in Real GDP in the Euro Area by Component

(per cent; percentage points, quarterly)



Source: Eurostat.

Contribution to the Change in Real GDP in the Euro Area by Country

(per cent; percentage points, quarterly)



Sources: Eurostat and BNB calculations.

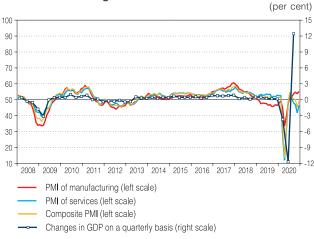
following twelve months measured by the EC consumer confidence index deteriorated in the fourth quarter of 2020.

In December 2020 consumer price deflation in the euro area was -0.3 per cent year on year for a fourth consecutive month. In December the positive contribution of food showed a certain decline and the negative contribution of industrial goods to the annual change of HICP posted an increase compared with September, which was offset by the lower negative contribution of energy products and higher positive contribution of services. Core inflation, excluding food and energy product prices, also stabilised at a lower level in the fourth quarter, coming to 0.2 per cent on an annual basis in the fourth quarter against 0.6 per cent on average in the previous quarter. The slower decline in prices of energy products to 6.9 per cent on an annual basis in December from a drop of 8.1 per cent in the third quarter was ascribable to the increased oil price over the month. The annual decline in the euro area HICP was also driven by the temporary cut in VAT rates in Germany in the second half year of 2020.

In December the ECB revised downwards its euro area real GDP growth projections for 2021 by -1.1 percentage points to 3.9 per cent, and revised upwards its projections for 2020 and 2022 by 0.7 and 1.0 percentage point to -7.3 per cent and 4.2 per cent. In 2023 real GDP is expected to grow by 2.1 per cent. According to the ECB, risks to the projection still point to lower than expected growth but they were less pronounced. Given the unprecedented uncertainty surrounding the development of the pandemic, its economic consequences and the potential medical resolution, the ECB projection includes both a more favourable and more unfavourable scenario. In case of more successful containment of the virus, rapid distribution of vaccines and limited economic losses, GDP is expected to grow by 6.0 per cent in the following year. If the health crisis worsens and sizeable and sustained losses of economic potential occur, the forecast is for weak growth of GDP by 0.4 per cent in 2021.

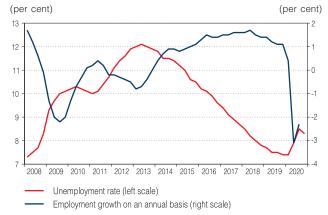
The ECB euro area inflation projection measured by HICP for 2021 remained unchanged at 1.0 per cent and that for 2022 was revised

PMI and the Change in Real GDP in the Euro Area



Sources: Eurostat, Markit,

Euro Area Unemployment Rate and Employment Growth



Notes: The chart of unemployment in the fourth quarter of 2020 does not include data on December.

Source: Eurostat.

Euro Area Inflation Rate

(per cent, on an annual basis)



Notes: Inflation measured through HICP. Core inflation is based on HICP, excluding energy products, food, alcohol and tobacco products. Source: Eurostat.

downwards by 0.2 percentage points to 1.1 per cent. Inflation is expected to grow to 1.4 per cent in 2023. In the ECB's view, the acceleration of inflation in 2021 will be ascribable to a base effect of the significant decline in oil prices and the temporarily reduced VAT rate in Germany in 2020.

The worsening economic environment in the euro area over the last months of 2020 as a result of the COVID-19 pandemic and downward inflation dynamics were among the main grounds of the ECB Governing Council's December decision to initiate additional stimulating monetary policy measures aimed at preserving favourable financing conditions in the economy. On 10 December 2020 the ECB Governing Council decided to recalibrate its monetary policy instruments as follows:

- The envelope of the Pandemic Emergency Purchase Programme (PEPP) was increased by EUR 500 billion to a total of EUR 1850 billion. The horizon of net purchases under the PEPP was extended by nine months to at least the end of March 2022, or until the ECB Governing Council judges that the coronavirus crisis phase is over. The reinvestment of principal payments from maturing securities purchased under the PEPP was extended by at least twelve months until the end of 2023.
- The period over which considerably more favourable terms will apply to the third series of targeted longer-term refinancing operations (TLTRO III) was extended by twelve months, to June 2022. Moreover, three additional operations will also be conducted between June and December 2021. The Governing Council decided to raise the total amount that counterparties will be entitled to borrow in TLTRO III operations from 50 per cent to 55 per cent of their stock of eligible loans. In order to provide an incentive for banks to sustain the current level of bank lending, the recalibrated TLTRO III borrowing conditions will be made available only to banks that achieve a new lending performance target.
- The duration of the set of collateral easing measures adopted in April 2020 was extended to June 2022. The Governing Council will reassess the collateral easing measures before June 2022.

Projections of the Annual Rate of Change of Euro Area Real GDP

(per cent)

Institu-	Date of re-	20)20	20)21	20)22
tion	lease	latest	previous	latest	previous	latest	previous
the ECB	XII.2020	-7.3	-8.0	3.9	5.0	4.2	3.2
the EC	IX.2020	-7.8	-8.7	4.2	6.1	3.0	-

Sources: the ECB, the EC.

Projections of Euro Area Annual Inflation Rate

(per cent)

Institu-	Date of re-	2020		2021		2022	
tion	lease	latest	previous	latest	previous	latest	previous
the ECB	XII.2020	0.2	0.3	1.0	1.0	1.1	1.3
the EC	IX.2020	0.3	0.3	1.1	1.1	1.3	-

Sources: the ECB, the EC.

External Environment

• Four additional pandemic emergency longerterm refinancing operations (PELTROs) will be conducted in 2021 on a quarterly basis at an interest rate of 25 basis points below the average interest rate on main refinancing operations for the period.

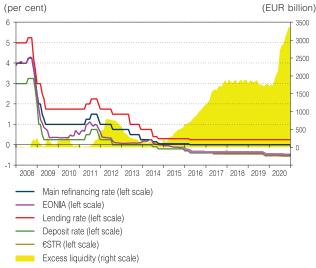
Concurrently, the ECB Governing Council kept unchanged the reference interest rates and the forward guidance for their future path. As concerns the asset purchase programme (APP), it was decided that the ECB would continue to conduct net purchases at a monthly pace of EUR 20 billion ('for as long as necessary'), and reinvestment of the principal payments from maturing securities purchased under the APP would continue, in full, for an extended period of time past the date when the Governing Council would start raising the key ECB interest rates, and in any case for as long as necessary.

As of 1 January 2021 the cumulative amount of purchases under the Eurosystem's extended Asset Purchase Programme (APP) totalled EUR 2909 billion, up EUR 62 billion compared with 2 October 2020. Concurrently, the cumulative amount of purchases under the Pandemic Emergency Purchase Programme (PEPP) totalled EUR 754 billion on 1 January 2021 (against EUR 571 billion on 2 October 2020).

As of 1 January 2021 the Eurosystem balance sheet figure rose to EUR 6979 billion (58.5 per cent of GDP in 2019) compared with EUR 6705 billion (56. 2 per cent of GDP in 2019) on 2 October 2020. Asset purchases under the APP and PEPP (EUR 244 billion) and long-term refinancing operations (EUR 40 billion) contributed most to the higher ECB balance sheet figure over the period. Concurrently, the excess liquidity in the euro area banking system continued to grow reaching EUR 3344 trillion on 1 January 2021, up EUR 184 billion compared with 2 October 2020.

The increased excess liquidity in the euro area banking system over the fourth quarter was the main factor behind the sustained gradual downward trend in €STR, the short-term euro area's money market rate, and in unsecured deposit interest rates, which started in the second quarter of 2020. Over the review period, the average value of the €STR dropped to -0.56 per cent compared to -0.55 per cent in the third quarter of 2020. Over the same period, the average value

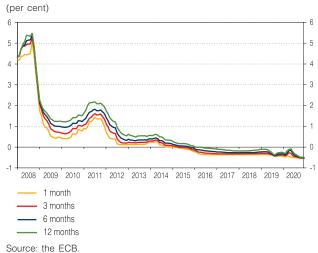
ECB Interest Rates, EONIA, €STR and Excess Liquidity in the Euro Area Banking System



Notes: Between 15 March 2017 and 30 September 2019 €STR data are on the preliminary €STR interest rate (pre-€STR). EONIA and €STR data are average for the month.

Source: the ECB.

EURIBOR Dynamics



of EONIA computed by applying a fixed spread to €STR⁴ amounted to -0.47 per cent. The trade volume of overnight deposits on the euro area unsecured money market in the fourth quarter increased, with its daily average coming to EUR 42.8 billion compared with EUR 41.9 billion in the third quarter. Over the October–December period EURIBOR unsecured deposit rates decreased, more strongly in long-term maturity sectors.

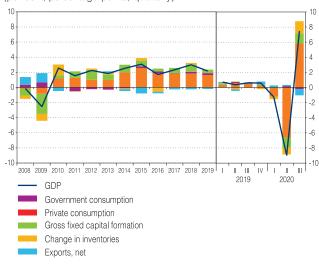
United States

In the third quarter of 2020, the US real GDP posted growth of 7.5 per cent guarter on quarter, from a fall of 9.0 per cent in the second quarter. Real GDP in the third quarter recorded the strongest quarterly growth in the post-World War II period, due mainly to restored household consumption and, to a lesser extent, to increased investment and inventories. Net exports contributed negatively to quarterly growth of GDP. The sharp rise in GDP over the third guarter reflected the resumption of activity in those sectors of the US economy, especially in the services sector, which were most severely hit by measures to curb the COVID-19 pandemic. Despite significant GDP growth over the quarter, the value of the indicator remained lower than that at the end of 2019. In the third quarter, the annual rate of change in real GDP of the United States amounted to -2.8 per cent.

In the fourth quarter of 2020, the leading economic indicators of the US economy changed divergently, but continued to indicate an increasing economic activity irrespective of the re-introduction of restrictive measures due to the sharp rise in COVID-19 cases in the US over the period. In December ISM-PMI manufacturing index increased significantly to 60.7 points, which was the highest value of the indicator from August 2018. The average value of the index in the fourth quarter was 59.2 points against 55.2 points on average in the third quarter. In December ISM-PMI of services reached 57.2 points, its average value in the fourth quarter being lower than the average value for the previous quarter. Consumer confidence indicators declined primarily in the fourth quarter,

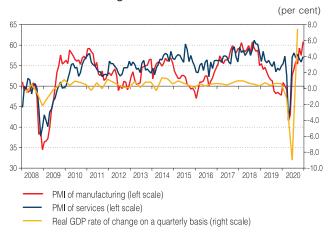
Contribution to the Change in Real GDP in the United States by Component

(per cent; percentage points, quarterly)



Source: Bureau of Economic Analysis.

ISM-PMI and Change in US Real GDP



Sources: Institute for Supply Management, Bureau of Economic Analysis.

External Environment

⁴ Since 2 October 2019 EONIA has been calculated and published by applying a fixed spread of 8.5 basis points to the €STR. For further details, see the box entitled Key Characteristics of the €STR, the New Euro Unsecured Overnight Rate, Economic Review, 3/2019.

due probably to the growing COVID-19 pandemic and the exhaustion of fiscal stimulus for households introduced in the spring. In October and November, individual consumption and retail sales showed a downward trend. Data on the construction sector showed a sustained increase in the economic activity in the sector over the fourth quarter. Overall, data available in mid-January 2021 indicated a slowdown in quarterly growth of real GDP over the last quarter of 2020

In the fourth quarter of 2020 annual inflation measured by the personal consumption expenditure index (PCE) slowed down, reaching 1.1 per cent in November against 1.2 per cent on average in the third quarter. In November the annual growth rate of the core PCE (excluding food and energy products) stabilised at 1.4 per cent for a second consecutive month, matching its average value in the third guarter. December CPI data (the other key US inflation indicator) showed an accelerated annual rate of inflation to 1.4 per cent compared to 1.2 per cent on average in the third quarter. The annual growth rate of consumer prices reported in the core index, excluding food and energy products, remained at 1.6 per cent in December for a third consecutive month against 1.7 per cent in the third quarter of 2020.

US labour market conditions slightly improved in the fourth quarter of 2020. Total employment in the US non-agricultural sector rose by 850 thousand jobs against an increase by around 4.0 million jobs over the third quarter. In December the unemployment rate stabilised at 6.7 per cent for a second consecutive month and it was lower than that at the end of the third quarter (7.8 per cent). The labour force participation rate in the US in the fourth quarter experienced no significant changes, with the average value of the indicator remaining 61.5 per cent for a second consecutive quarter.

At its 15 and 16 December 2020 meeting, the US Federal Open Market Committee (FOMC) made a commitment to continue increasing its purchases of US treasury securities by at least USD 80 billion *per* month⁵ and of agency mortgage-backed securities by at least USD 40 billion *per* month until 'substantial further progress'

⁵ Referred to as the US dollar below.

US Consumer Confidence Indices

(2000 = 100)

110
100
90
80
70
60
40
30
20
100
2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Consumer confidence
Assessment of economic situation in the following six months

Assessment of economic situation in the last six months

Source: the Conference Board.

US Inflation Rate

(per cent; on an annual basis)



Notes: Inflation is measured by the personal consumption expenditure indicator. Core inflation is measured by the personal consumption expenditure, excluding food and energy expenditure.

Source: Bureau of Economic Analysis.

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has been made toward the FOMC's maximum employment and price stability goals.

At the December meeting, FOMC members' projections of real GDP growth and inflation were revised up and those of the unemployment rate were revised down for the 2020-2022 projection horizon, with the 2020 projections of these indicators revised most significantly. FOMC long-term equilibrium value assessments of all economic indicators were left unchanged, except for GDP growth which was lowered by 0.1 percentage points to 1.8 percentage points. The median of FOMC members' individual forecasts about the expected level of the federal funds rate showed again complete consensus about leaving the target range for the federal funds rate within the range of 0.00-0.25 per cent over the projection horizon until 2023. The estimate of the long-run equilibrium level of federal funds rate remained unchanged at 2.5 per cent.

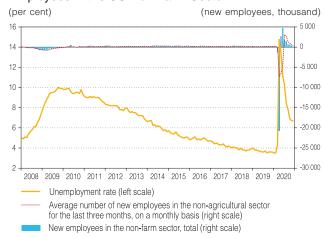
In December diffusion indices of FOMC members' uncertainty assessments were published for the first time. Diffusion indices, reflecting the members' uncertainty about their projections relative to the levels of uncertainty over the past 20 years, suggested a sustained high level of uncertainty. Concurrently, diffusion indices, measuring the balance of risks to the projections, show a decrease in downside risks compared with September and, correspondingly, a certain balancing of members' risk assessments in terms of projected economic indicators.

In the fourth quarter of 2020 total assets in the US Federal Reserve balance sheet rose by USD 307 billion to USD 7.36 trillion (34.4 per cent of GDP in 2019).

China

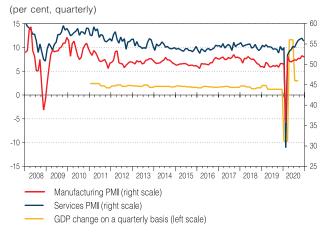
Over the fourth quarter of 2020 China's real GDP grew by 6.5 per cent on an annual basis compared with 4.9 per cent in the third quarter, while it slowed down to 2.6 per cent on a quarterly basis, from 3.0 per cent in the previous quarter. In 2020 China's real economic growth was 2.3 per cent. The economic recovery in the fourth quarter was attributable mainly to the services sector, whose growth rate accelerated to 6.7 per cent on an annual basis, from 4.3 per cent in the third quarter.

US Unemployment Rate and Number of New Employees in the US Non-Farm Sector



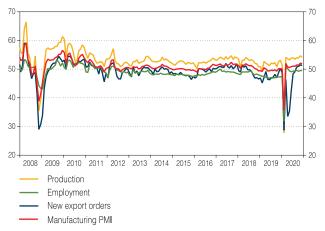
Source: Bureau of Labour Statistics.

Manufacturing and Services PMIs and Change in China's Real GDP



Sources: National Bureau of Statistics of China and China Federation of Logistics and Purchasing.

Manufacturing PMI in China and Major Components



Source: China Federation of Logistics and Purchasing.

PMIs in China continued to suggest an accelerated recovery of the economy in the fourth quarter, with the values of the indices both for services and manufacturing remaining higher than the pre-pandemic crisis levels. In December 2020 the value of manufacturing PMI came to 51.5 points and services PMI to 55.7 points. The high values of manufacturing PMI were driven mainly by the increase in sub-indices of current production and new orders (including for exports). The rise in the services PMI reflected the curbed infection and the low number of COVID-19 cases in China and restored domestic demand, which after slowing down somewhat accelerated to the pre-pandemic rates. Overall, data on economic indicators available in mid-January 2020 suggested a further balanced recovery of the economic activity in early 2021.

Concurrently, private consumption was recovering slower. Although retail sales rose by 4.6 per cent on an annual basis in December, they posted a 3.9 per cent fall in 2020.

Annual growth in total investment in China continued to accelerate due to growth in investment by state-owned enterprises, reaching 2.9 per cent in December, from 0.8 per cent in September. The growth rate of industrial production accelerated to 7.3 per cent on an annual basis in December, from 6.6 per cent in September, exhibiting a rise of 4.6 per cent in 2020.

In the fourth quarter of 2020 the consumer price index in China continued to decline, reporting deflation on an annual basis in November for the first time since October 2009. The main contributor to the downward dynamics were food prices,

Retail Sales in China



Source: National Bureau of Statistics of China.

Fixed Capital Investment in China by Sector

(per cent; on an annual basis)



Source: National Bureau of Statistics of China.

China's Inflation Rate

(per cent, on an annual basis)



Notes: Inflation is measured by consumer price index. Core inflation is measured by consumer price index, excluding food and energy expenditure.

Source: National Bureau of Statistics of China.

which fell by 2.0 per cent on an annual basis in November due to the strong drop in pork prices. In December inflation amounted to 0.2 per cent on an annual basis, reflecting increased food prices attributable to the dynamics of pork prices. In December 2020 non-food prices experienced no essential changes compared with the corresponding month of the previous year.

In the fourth quarter, the People's Bank of China did not initiate new monetary policy measures as the economy was recovering steadily over the review period. The interest rate on one-year loans (Loan Prime Rate, LPR) was kept at 3.85 per cent and that on five-year loans at 4.65 per cent. In 2020 as a whole the one-year LPR was cut by 30 basis points and the five-year LPR by 15 basis points in two steps in early 2020.

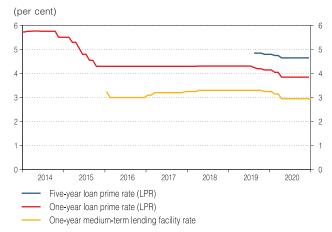
International Commodity Prices

Crude Oil

In 2020, the Brent crude oil price fell dramatically year on year. The partial recovery in the price after April was insufficient to offset the fall in the first quarter of the year caused by a strong decline in demand globally, a result of the fallout from the anti-epidemic measures introduced to curb COVID-19. The price drop throughout the year was partially limited by the contracted supply following the agreement reached between the OPEC+ countries on oil production cuts until April 2022⁶. The temporary partial easing of anti-epidemic measures in leading economies and the news of the development of an effective vaccine against COVID-19 in the last guarter of 2020 had an additional limiting effect on the price drop.

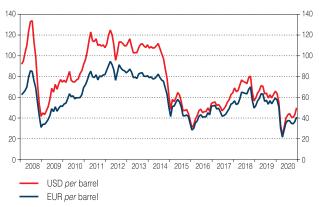
In December 2020 the price of crude oil rose significantly on a monthly bases in both US dollars and euro, but the price level remained below that of the corresponding period of the

Reference Interest Rates in China



Source: The People's Bank of China.

Brent Crude Oil Prices



Source: the World Bank.

External Environment

⁶ On 12 April 2020 OPEC, Russia and other oil producing countries agreed on output cuts in daily oil-production to 9.7 million barrels *per* day, with effect from 1 May 2020, initially for a two-month period (subsequently extended until July 2020), followed by a further oil-production cut by 7.7 million barrels *per* day until December 2020 and another cut by 5.8 million barrels *per* day between January 2021 and April 2022. In December, OPEC+ revised its schedule for a gradual reduction of the supply constraint, deciding on 7.2 million barrels *per* day in January 2021 and on holding additional OPEC+ meetings in the following months, at which supply changes will be discussed in the course of 2021.

previous year. Factors supporting the upward dynamics at year end involved the agreement among OPEC+ members on a smaller increase in oil supply in January 2021 than initially announced in April 2020, as well as the adoption of a package of new fiscal policy incentives in the United States and the start of COVID-19 vaccination in a number of countries, which helped enhance market participants' expectations of a gradual recovery in the global economy in 2021.

In December 2020 market expectations for oil prices for the first half of 2021 were higher than those in September 2020, fluctuating between USD 49.9 and USD 50.2 *per* barrel. In January 2021 expectations for price levels continued to rise due to substantial cuts in oil production⁷ announced by Saudi Arabia following the OPEC+ meeting in the beginning of the month.

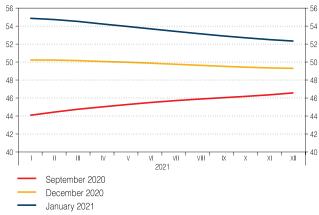
Basic Metals and Food Prices

In 2020 metal prices in dollars rose by 2.7 per cent on an annual basis (0.4 per cent in euro) and recovered after the fall reported in the second quarter. The price rise was strongly pronounced in the second half of 2020 driven by increased demand for metals from China and improved prospects for a recovery in the global economic activity following the news of the development of effective vaccines against COV-ID-19. By sub-component, the largest increase was posted by copper prices, which is of key importance for Bulgaria's goods exports. The rise in copper prices was due to strong demand from China and the recovered demand growth in the rest of the world following the significant decline in the second quarter of 2020 due to strict anti-epidemic measures introduced globally. Temporary production disruptions in some of the world's largest copper mines also added to rises in copper prices.

In December 2020 metal prices increased substantially year on year, reflecting mainly the higher prices of aluminium and copper. In line with the dynamics of the metal price index, market expectations for the first half of 2021 point to a further year-on-year increase in metal prices in both dollars and euro.

Brent Crude Oil Futures Prices

(average monthly price of contract, USD per barrel)

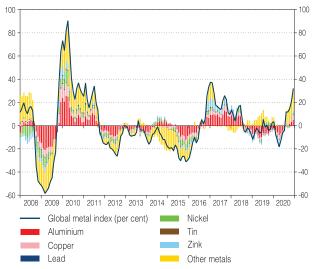


Note: January 2021 data refer to the first half of the month. Source: JP Morgan.

Price Indices of Major Raw Materials and Commodity Groups

Metals

(per cent; percentage points)



Sources: the ECB and BNB calculations.

On 5 January 2021, Saudi Arabia announced oil production cuts by 1 million barrels per day in February and March 2021.

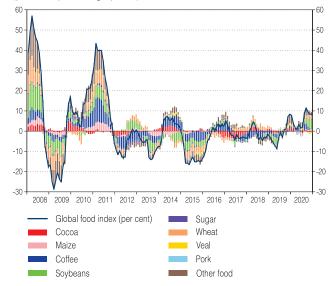
In 2020 the food price index in US dollars posted an increase of 5.5 per cent (3.5 per cent in euro) compared with the average level for 2019. The dynamics across food price index subcomponents was divergent. The highest quarteron-quarter price rises were reported in soy beans (in line with the enhanced demand from China) and coffee. The price of wheat⁸, which is of key importance for Bulgarian exports, also increased on an annual basis in 2020. The rise matched the expectations for weaker harvest in the second half of 2020 due to adverse weather conditions in a number of wheat producing countries. Expectations of lower exports by Russia, due to export quotas and duties announced in December 2020, additionally pushed up wheat prices.9

In December year-on-year food prices rose in US dollars and euro. Market participants' expectations of food prices in the first half of 2021 point to a rise on an annual basis in both dollars and euro.

Developments in international commodity prices on an annual basis imply sustained favourable terms of trade for Bulgaria in the last quarter of 2020. If exchange rates are assumed to remain unchanged and market expectations of international commodity price dynamics materialise, the terms of trade for Bulgaria are expected to remain favourable in the first quarter of 2021. In the second quarter of 2021 the positive terms of trade for Bulgaria are anticipated to reverse, which will be attributable to the expected rise in oil prices on annual basis as Bulgaria is a net importer of oil.

Food

(per cent; percentage points)



Note: Annual rate of change (per cent) and contribution (percentage points) by sub-component of respective price indices measured in US dollars.

Sources: the ECB and BNB calculations.

⁸ Based on World Bank data as of 15 January 2021.

 $^{^{\}rm 9}$ For further details, see USDA Wheat Outlook of 14 January 2021.

2. Financial flows, money and credit

In the period from January to October 2020 the current and capital account surplus decreased significantly from the corresponding period of 2019, reflecting largely the decline in net revenue from tourist and transport services, which are among the sectors most severely hit by the spread of COVID-19. At the end of the first half of 2021 the positive current and capital account balance is expected to increase on an annual basis from the end of 2020 due mainly to the projection for higher capital transfers to Bulgaria under EU operational programmes to address the consequences of COVID-19.

Non-government sector deposits in the banking system continued growing at comparatively high rates in the September–November 2020 period driven by both the precautionary savings maintained by economic agents amid the uncertain macroeconomic environment caused by the pandemic outbreak and the ongoing postponement of consumption on the part of households and limited investment activity of corporations. The downward trend in the annual growth rate of loans to non-financial corporations and households was sustained, reflecting both demand and supply factors.

In the first half of 2021 deposit growth rates are expected to remain comparatively high. Additional moderation in credit growth to non-financial corporations and households may be expected from the second quarter of 2021, reflecting the gradual expiry of the extended moratorium period on bank loan repayments and the assumed repayment of a portion of deferred loans. Following the expiry of the deadline for deferring obligations of bank clients, an increase in the share of non-performing loans in bank portfolios can be expected, which will probably lead to a rise in interest rates on newly extended loans.

External Financial Flows

In the period from January to October 2020 the positive current account balance¹⁰ decreased significantly compared with the corresponding period of 2019. The decline in the surplus reflected mostly the strong contraction in the positive services trade balance, with the lower surplus on the net secondary income contributing further to this effect. The lower trade deficit and, to a lower extent, the reduced net primary income deficit limited the decline in the current and capital account surplus over the review period.

The reduced surplus in net services in the January–October 2020 period compared to the same period of 2019 was a result of the stronger decline in nominal exports than that in imports of services. This was largely attributable to the fact that Bulgaria is a net exporter of tourist and transport services, which were among the sectors most severely hit by the spread of COVID-19 pandemic. In the January–September period exports of services declined by 33.6 per cent, with the strongest fall registered between

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 $^{^{\}rm 10}\,{\rm The}$ analysis of balance of payments flows employs information from its analytical reporting. Preliminary data.

June and August 2020. This reflected the significantly lower number of visits of foreign nationals to Bulgaria relative to the same period of 2019. Imports of services by month exhibited the largest year-on-year fall in April and May 2020, and in the January–October period imports of services declined by 22.5 per cent on an annual basis. In the first ten months of 2020 imports of services reported the strongest decline in travel followed by transport services.

In January-October 2020 the surplus on the net secondary income item posted a significant fall compared with the corresponding period of 2019, with the dynamics driven by lower revenue reported from remittances of Bulgarian citizens working abroad.

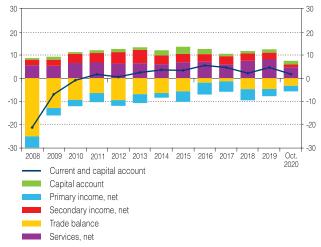
The decrease in the trade balance deficit in the first nine months of 2020 reflected a stronger year-on-year fall in nominal imports of goods than in nominal exports. Foreign trade flows contracted most strongly in the second quarter (an annual drop of 23.1 per cent in imports and 15.4 per cent in exports) driven by containment measures against the spread of COVID-19 internationally and in Bulgaria. From the beginning of the third quarter until October the rate of decline in both imports and exports slowed down compared with the second quarter, which may be explained by the temporary partial lift of containment measures in Bulgaria and in Bulgaria's main trading partners. In real terms, 11 the January-September 2020 period saw a stronger yearon-year decline in imports of goods (by 5.8 per cent) than in exports (4.9 per cent). In addition, from the beginning of the year the fall in prices of imported goods was stronger than that of exported goods, which also contributed to the contraction in nominal trade balance deficit.

The decline in the net primary income deficit between January and October 2020 compared to the corresponding period of 2019 was mainly ascribable to significantly lower dividend payments and distributed profits to non-residents. The lower dividends paid on the net primary income debit side was mainly ascribable to banks, which did not distribute dividends due to measures initiated by the BNB in March 2020

¹¹ Non-seasonally adjusted national account GDP data.

Current and Capital Account Flow Dynamics and Contributions of Individual Components

(per cent of GDP)



Notes: The October 2020 data on the current and capital account are accumulated for the last 12 months. GDP data for the last four quarters, through the second quarter of this year inclusive, are used in calculating current and capital account flows to GDP ratio for October 2020.

Sources: the BNB, the NSI, BNB calculations.

Flows on Major Balance of Payments Accounts

(EUR million)

	2019	January- October 2020	Change compared to January–October 2019
Current account	1,847.5	699.0	-1,393.1
Trade balance	-2,891.2	-1,125.4	1,067.0
Services, net	4,875.2	2,431.0	-1,970.0
Primary income, net	-1,910.1	-1,217.5	421.0
Secondary income, net	1,773.5	610.9	-911.1
Capital account	891.6	793.9	72.9
Financial account	3,222.5	-1,152.6	-4,365.5
Change in reserves	-559.4	4,276.3	

Source: the BNB

¹² Preliminary data subject to revision; revisions usually show an increase in outflows to non-residents.

to increase additionally the banking system's capital and liquidity intended to curb adverse effects of the pandemic on the banking system and economic activity. 13

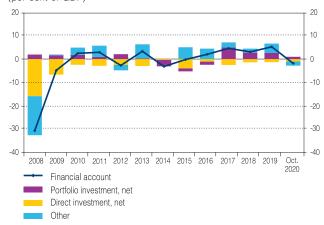
In the January-October 2020 period the positive balance on the capital account rose slightly compared with the corresponding period of 2019, reflecting mainly higher capital transfers received under EU operational programmes and the lack of outflows on the general government sector capital transfers for the same period.

As a result of the dynamics of the flows on individual current and capital account items described above, in October 2020 the total current and capital account surplus accumulated for the last 12 months decreased significantly from December 2019, the contraction in the surplus on net services contributing most and the lower positive balance on the net secondary income to a lesser extent. In October the total current and capital account balance for the last 12 months accounted for 2.3 per cent of GDP (4.5 per cent of GDP at the end of 2019).

The downward trend in the positive current account balance on an annual basis is expected to be sustained at the end of 2020. The forecast is based on the assumption that measures introduced in the fourth quarter of 2020 to curb the spread of COVID-19 in Bulgaria and other EU countries will be extended until the end of the first guarter of 2021, but the negative effect on the economic activity is anticipated to be weaker than that of the measures introduced in the spring of 2020. Consequently, at the end of the first quarter of 2021 Bulgaria's balance of payments current account surplus on an annual basis¹⁴ is expected to remain close to the surplus projected at the end of 2020. Assuming a gradual ease in containment measures and a smooth economic activity recovery, from the second quarter of 2021 the year-on-year current account surplus is expected to gradually increase, which will be mainly attributable to the rise in the positive services trade balance and the positive net secondary income balance. The higher surplus on the net secondary income is

Financial Account Flow Dynamics and Contributions of Individual Components

(per cent of GDP)



Notes: The Other item includes Other Investments, Net, and Financial Derivatives (Other than Reserves) and Employee Stock Options, Net. October 2020 data on financial account flows are accumulated for the last 12 months. GDP data for the last four quarters, through the third quarter of 2020 inclusive, are used in calculating ??? to GDP ratio for October 2020.

Sources: the BNB, the NSI, BNB calculations.

¹³ For details, see https://www.bnb.bg/PressOffice/POPressReleases/POPRDate/index.htm.

¹⁴ It should read current account balance for the last four quarters.

expected to reflect mainly higher net receipts of the general government sector compared with end-2020. In the first half of 2021 the surplus on the capital account is expected to increase on an annual basis 15 compared with the end of the previous year. The dynamics of capital account inflows will be underpinned by the EC decision to redirect funds under EU operational programmes to address the consequences of the spread of COVID-19. A portion of these funds is assumed to be in the form of capital transfers to Bulgaria. By the end of the first half of the year the overall balance on the current and capital account is expected to increase to 2.6 per cent of GDP on an annual basis compared with projected 2.2 per cent of GDP at the end of 2020, and the increase will be mainly driven by the higher surplus on the capital account.

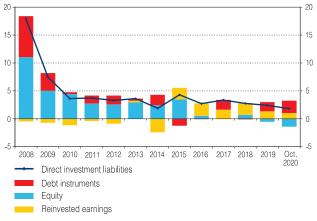
In the January-October 2020 period a net inflow of funds on Bulgaria's financial account in the amount of EUR 1.2 billion was reported. The negative balance on the financial account was a result of the stronger increase in Bulgarian residents' foreign liabilities than foreign assets. The rise in foreign liabilities was driven mainly by the increased liabilities of the general government sector due to the issue of government securities¹⁶ on international capital markets in September 2020. Concurrently, the increase in foreign assets was significantly limited by the measures announced by the BNB to further strengthen Bulgaria's banking system liquidity, which prompted a decline in banks' foreign assets. Other sectors' assets¹⁷ outside Bulgaria rose, which partially limited net inflow of funds to Bulgaria. In October 2020 the accumulated financial account balance for the last 12 months was negative (against a positive balance at the end of 2019). The financial account balance for the last 12 months accounted for -1.9 per cent of GDP in October (against a surplus of 5.3 per cent of GDP at the end of 2019).

In the January-October 2020 period direct investment liabilities (reporting FDI inflows

 $^{\rm 15}$ lt should read capital account balance for the last four quarters.

Direct Investment Liabilities by Type of Investment

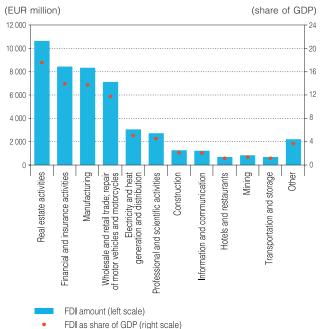
(per cent of GDP)



Notes: October 2020 data on direct investment liabilities flows are accumulated for the last 12 months. GDP data for the last four quarters, through the second quarter of 2020 inclusive, are used in calculating ta ratio to GDP for October 2020.

Sources: the BNB, the NSI, BNB calculations.

FDI by Sector as of the End of the Third Quarter of 2020



Note: GDP data for the last four quarters, through the second quarter of this year inclusive, are used in calculating the investment to GDP ratio for the third quarter of 2020.

Sources: the BNB, the NSI, BNB calculations.

¹⁶ On 15 September 2020 Bulgaria issued two tranches of bonds to the amount of EUR 1.25 billion with maturities of ten and 30 years.

 $^{^{\}rm 17}$ It should read sectors other than general government, banks and central bank.

into Bulgaria) decreased to EUR 929.5 million (against EUR 1308.8 million in the January-October 2019 period). The year-on-year fall reflected the decline in liabilities related to equity. The bulk of the decline in equity for the period was offset by increased liabilities related to the use of debt instruments. At the end of the third quarter of the year total FDI in Bulgaria amounted to 78.8 per cent of GDP. Breakdown by economic sector show that real estate activities, financial and insurance activities and manufacturing remained the sectors with highest FDI.

As a result of net flows on the balance of payments current, capital and financial account, according to the balance of payments data for the last 12 months gross international reserves rose significantly in October 2020¹⁹ compared with the end of 2019. In October the international reserve coverage of the average nominal imports of goods and non-factor services rose to 10.6 months for the last 12 months (8.0 months in December 2019). The ratio of Bulgaria's international reserves²⁰ to short-term external debt reached a significantly higher level compared with the end-2019, in October accounting for 394.3 per cent (287.1 per cent in December 2019).

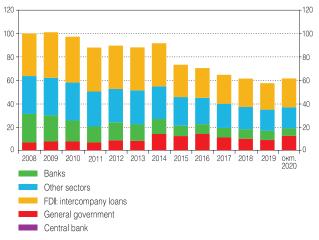
In October 2020 Bulgaria's gross external debt amounted to EUR 37.3 billion (61.5 per cent of GDP), marking an increase of EUR 2148 million from the end of 2019 (57.4 per cent of GDP). The general government sector contributed most to higher gross external debt due to the eurobonds issued by the Bulgarian government on international capital markets, while increased intercompany loans contributed to a lesser degree. The increase in Bulgaria's gross external debt compared to previous year end was partly limited by the decrease in banks' foreign debt.

In October 2020 long-term debt as a share of Bulgaria's gross external debt was 80.0 per cent (75.4 per cent in December 2019). At the same time, interest payments on external debt tended to decline on an annual basis, indicating

¹⁸ Preliminary data subject to revisions which usually show an increase in foreign direct investment liabilities.

Gross External Debt

(per cent of GDP)



Notes: Further details on individual institutional sectors are available on the BNB website, Statistics, External sector/Gross External Debt. Nominal GDP for the last four quarters, through the third quarter of this year inclusive, is used in calculating gross external debt to GDP ratio for October 2020.

Sources: the BNB, the NSI, BNB calculations.

Gross External Debt as of October 2020

(EUR million)

,				
		Change		
	Amount	Since December 2019	For the last 12 months	
General government	7,470.6	2,043.1	2,058.4	
Central bank	0.0	0.0	0.0	
Banks	3,902.4	-999.1	-940.3	
Other sectors	10,984.9	-16.1	39.8	
FDI – intercompany loans	14,968.7	1,120.5	1,096.0	
Total	37,326.7	2,148.5	2,253.9	

Note: Further details on individual institutional sectors are available on the BNB website, Statistics, External sector/Gross External Debt. Source: the BNB.

¹⁹ Valuation adjustments and price revaluation excluded.

²⁰ The analysis is based on gross international reserves on the BNB Issue Department balance sheet. The market value of international reserves includes changes stemming from transactions, valuation adjustments and price revaluation.

that terms for servicing external obligations by Bulgarian residents remained favourable.

Monetary and Credit Aggregates

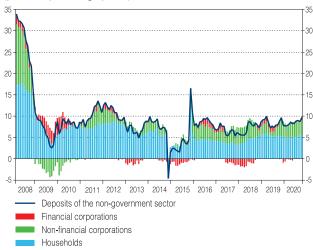
In the first eleven months of 2020 nongovernment sector's deposits²¹ in the banking system continued to increase at comparatively high rates, with their annual growth rate reaching 9.7 per cent (the same rate at the end of 2019). This dynamics reflected deposits of both households and non-financial corporations. The major drivers for retained high deposit rates in the period September-November 2020 were precautionary savings maintained by economic agents amid the uncertain macroeconomic environment caused by the pandemic and deferred consumption of some goods and services by households along with limited investment activity of corporations. Part of household savings may continue to be forced due to the limited possibilities for making specific expenses, such as tourism and travel. A factor supporting household deposit growth was the continued increase in labour income. In the context of low deposit rates, firms and households continued to save mostly in the form of overnight deposits. Within the currency composition, deposits in national currency still comprised the bulk of non-government sector's deposits, their share reaching 61.5 per cent as of November.

The effective implicit rate of minimum required reserves²² remained at levels similar to those at the end of the previous year, reflecting retained high inflows of attracted funds from residents in 2020. In December this rate was 9.43 per cent (9.43 per cent in December 2019), with bank deposits with the BNB comprising 8.28 percentage points in the fulfilment of minimum required reserves, and the remaining 1.15 percentage points forming recognised cash balances.

²¹ Non-government sector's deposits include deposits of households, non-financial corporations and financial corporations. Deposits of households and non-financial corporations (96.3 per cent on average for the last 12 months as of November 2020) comprise the major share of all non-government sector's deposits and thus the analysis focused on these two sectors.

Annual Growth of Non-government Sector Deposits and Contribution by Sector

(per cent, percentage points)



Notes: Data for 2020 cover the period to November inclusive. The annual growth rate of non-government sector deposits in November 2015 reflects the exhausted base effect of KTB removal as a reporting unit from the monetary statistics in November 2014.

Source: the BNB.

Reserve Money



Source: the BNB

²² Under Article 3 of BNB Ordinance No 21 on the Minimum Required Reserves Maintained with the Bulgarian National Bank by Banks, the rate of minimum required reserves on funds attracted from residents is 10 per cent of the deposit base, from non-residents 5 per cent and from the state and local government budgets 0 per cent.

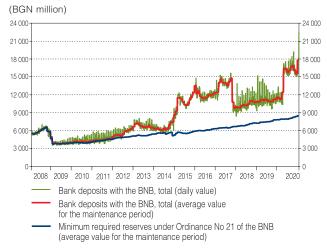
The trend of acceleration in the annual growth of reserve money which started in March under the major influence of BNB measures to strengthen banking system liquidity was reversed in October, and its year-on-year growth was 19.3 per cent in November (-0.3 per cent by end-2019). This dynamics was driven by a fall in bank funds kept with the BNB in October and November, resulting from decreased excess reserves. Their decline could be explained by banks' demand for higher earning opportunities for investing free liquid funds, in compliance with BNB limits on bank exposures, with foreign assets of banks rising over the review period. In November 2020 excess funds over required minimum reserve assets under Ordinance No 21 was 55.7 per cent on an average daily basis, from 76.5 per cent in September 2020. Minimum reserves continued to grow, driven by the rising deposit base.

Since September 2020 annual growth of currency in circulation has tended to accelerate, accounting for 10.7 per cent in November (10.3 per cent by end-2019 and 7.9 per cent by August). This upward dynamics was probably due to a partial recovery in economic activity after stepwise easing of containment measures in Bulgaria and globally and continued maintenance of savings and cash. Potential factors behind maintained savings in cash were the uncertain economic environment during the COVID-19 pandemic and negative interest rates on corporate deposits along with very low rates on household deposits.

Reserve currency (euro) trading with the BNB is the main lev liquidity management instrument of banks under currency board arrangements. In 2020 the BNB sold EUR 1.46 billion net to banks.

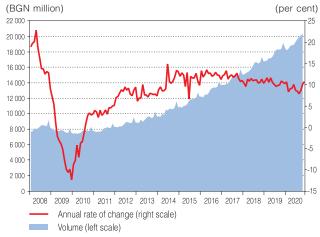
Bank assets grew by 6.5 per cent on an annual basis by end-November 2020,²³ with the highest contribution of claims on the non-government sector. The increase in bank excess reserves and Bulgarian government bond portfolios contributed also to the total asset growth, albeit to a lesser extent. Compared with the end of 2019, slight growth in foreign assets and a stronger decline in foreign liabilities were reported, which

Bank Deposits with the BNB



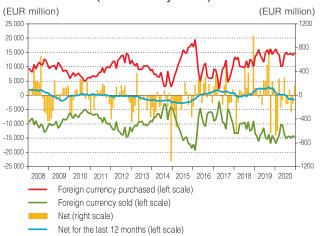
Source: the BNB

Currency in Circulation



Source: the BNB.

Foreign Currency Purchases and Sales between the BNB and Banks (on a Monthly Basis)



Notes: Net means currency purchased by the BNB minus currency sold by the BNB. Data refer to all bank transactions in foreign currency including liquidity management operations related to the transfer of own funds from lev accounts with the BNB to own accounts with the BNB in euro and *vice versa*.

Source: the BNB.

²³ Data from sectoral monthly reporting of other monetary financial institutions were used.

resulted in a BGN 1.8 billion increase in net foreign assets to BGN 12.7 billion as of November.

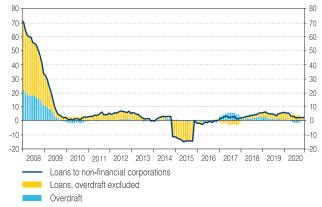
Annual growth in credit to non-financial corporations and households²⁴ continued to slow down, accounting for 4.1 per cent in November (7.4 per cent by end-2019). This dynamics was impacted by both demand and supply side factors. The uncertainty surrounding future developments in the macroeconomic environment and subdued investment activity in Bulgaria dampened private sector demand for credit. At the same time, banks continued tightening their credit standards and conditions, especially to corporate loans. Stricter credit policies were mainly driven by the lower risk appetite of banks and increased risk assessments, according to bank lending survey results. In particular, risk assessments reflected the deteriorating macroeconomic environment and business climate in industries with a large share in the credit portfolios, decreased borrower solvency and higher collateral risk. In addition, the option used by companies and households to reschedule liabilities under the BNB procedure is a factor likely to have supported credit growth. Another factor contributing to this, though to a relatively lesser degree, is the increased amount of disbursed loans guaranteed by the Bulgarian Development Bank under a government's measure in support of vulnerable firms and households.

In November 2020 growth in non-financial corporations' credit slowed down to 2.2 per cent on an annual basis (5.9 per cent in December 2019), reflecting largely loans excluding overdraft. Newly extended²⁵ corporate loans recorded a decline in volumes in the September to November period²⁶ compared to the previous three months. At the same time, the upward trend in lev-denominated loans was sustained at the expense of the decreased share of those in

²⁴ In November 2020 loans represented the bulk of bank claims on the non-government sector with a share of 97.1 per cent on average for the last 12 months, and the analysis is therefore focused on them. In addition to loans, claims include also repurchase agreements, securities other than shares, and shares and other equity instruments. Non-government sector's deposits, in turn, include loans to households, to non-financial corporations and to financial corporations. As of November 2020 loans to households and non-financial corporations in total non-government sector loans accounted for 93.3 per cent on average for the last 12 months, and therefore developments in these two sectors are analysed.

Annual Growth of Credit to Non-financial Corporations and Contributions of Individual Types of Loans

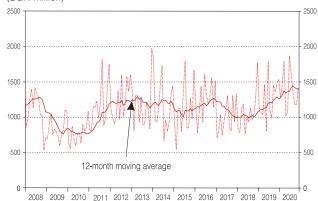
(per cent, percentage points)



Notes: Data for 2020 cover the period to November inclusive. The annual growth rate of loans to non-financial corporations in November 2015 reflects the exhausted base effect of KTB removal as a reporting unit from the monetary statistics in November 2014. Source: the BNB.

New Loans to Non-financial Corporations (Monthly Volumes)

(BGN million)



Notes: Data for 2020 cover the period to November inclusive. For data characterised by significant volatility, additionally moving averages computed for suitably selected periods are provided, in order to smooth the fluctuations in corresponding time series and present the trends in their development.

Source: the BNB.

²⁵ The terms 'new' and 'newly extended' hereinafter referred to as the statistical category 'new business'.

²⁶ Based on monthly data.

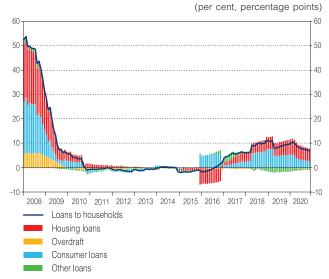
euro. As of November loans in national currency comprised 55.0 per cent of total new corporate loans, while euro-denominated loans occupied 43.5 per cent.²⁷

Annual growth in credit to households also continued slowing down, accounting for 6.9 per cent in November (9.5 per cent by end-2019). Lower growth rates were observed in both consumer and housing loans, with consumer loans decelerating more significantly. Dynamics of other loans to households continued to reflect mainly government repayments of loans extended under the National Programme for Energy Efficiency of Multi-family Residential Buildings, which exceeded the volume of new loans under this programme. Newly extended household loans recorded growth in volumes in the September to November period²⁸ compared to the previous three months, entirely due to the higher amount of new housing loans.

Aggregated data of the bank lending survey²⁹ for the third quarter of 2020 suggest continued tightening of credit standards³⁰ applied to corporate loans, slight easing in consumer loans and unchanged standards for housing loans vis-à-vis April-June 2020. Banks report tightening in all conditions³¹ on corporate loans, most pronounced in collateral requirements, additional requirements to borrowers and the maximum amount and term of the loan. In the third quarter of 2020 banks reported more essential easing in consumer credit conditions in terms of the maximum amount and term and significantly slighter easing in terms of interest rates. Concurrently, banks tightened slightly their conditions in respect of fees and commissions

²⁷ This refers to the share of loans in national currency and euro for the last 12 months as of November 2020.

Annual Growth of Household Credit and Contributions of Individual Types of Loans



Notes: Data for 2020 cover the period to November inclusive. Based on additional information received from reporting units, a revision of household loans was carried out according to their purpose of use in the period December 2015 – August 2019.

Source: the BNB.

New Loans to Households (Monthly Volumes)

(BGN million)



Note: Data for 2020 cover the period to November inclusive.

Source: the BNB

²⁸ Based on monthly data.

²⁹ Bank Lending Survey in Bulgaria is carried out by the BNB on a quarterly basis. Summarised results of the survey are presented through weighting bank responses by their market share in the relevant credit segment.

³⁰ Credit standards are understood as internal bank guidelines or criteria for loan approvals established prior to negotiating the terms of extended loans. Credit standards determine the type of the loan and collateral considered admissible by banks, taking into account specific priorities by sector, *etc*. Credit standards specify also all relevant conditions to be met by a borrower.

³¹ Credit conditions typically involve the reference interest rate surcharge, the loan amount, conditions for its utilisation and other conditions, fees and commissions, collateral or guarantees to be provided by a borrower.

and premiums on riskier loans. Weighted survey data on housing loans suggest easing in fees and commissions and, to a significantly lower degree, in interest rates, with slight tightening in collateral requirements. Tightened credit policies (credit standards and conditions) reflected the lower risk appetite of banks and increased risk assessments. At the same time, the significant volume of attracted resources and their low cost, the competition and high banking system liquidity have further helped ease credit policies. Bank expectations for the last quarter of 2020 are for further tightening in corporate lending standards, slight tightening in consumer loans and easing in housing credit.

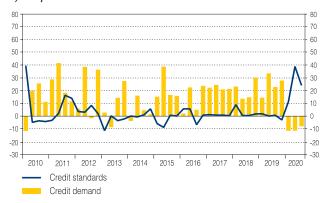
In the third guarter of 2020 banks report decreased demand for loans by small- and medium-sized enterprises and large corporate customers, especially in the segment of longterm loans. Household demand increased from April-June. The main factors contributing to lower demand for corporate loans in the guarter were reduced demand for bank resources for investment purposes, lower funds needed for refinancing and renegotiating debts and for mergers, acquisitions and resolution. Increased demand for consumer loans was mainly due to low interest rates, funds needed for purchasing current consumption goods and the desire of certain households to finance their consumer expenditure by loans secured by real estate. In addition to low interest rates, housing market prospects and needs for funding first home or additional property purchases contributed strongly to the higher demand for housing loans over the quarter. For October to December 2020, banks expect decreased demand for longer-term loans and slightly increased demand for shortterm credit by both SMEs and large corporations. With regard to household demand, banks envisage a fall in consumer credit and a rise in loans for house purchase.

In the first half of 2021 deposits of the non-government sector are expected to continue growing at comparatively high rates as a result mainly of continuous maintenance of precautionary savings by economic agents amid an uncertain macroeconomic environment. Additional growth moderation in credit to non-financial corporations and households may be expected

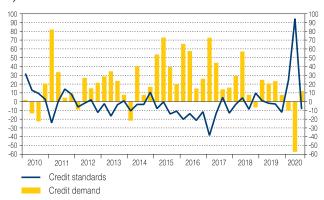
Changes in Demand and Credit Standards

(balance of opinions; percentage points)

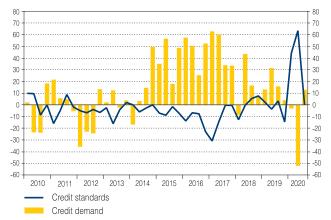
a) corporate loans



b) consumer loans



c) housing loans



Notes: As regards credit standards, charts present banks' balance of opinions defined as a difference in percentage points between the percentage of banks responding 'tightened' ('considerably' and 'somewhat'), and the percentage of banks responding 'eased' ('considerably' and 'somewhat'). As regards credit demand, the balance of opinions is defined in percentage points as a difference between the percentage of banks responding 'increased' ('considerably' and 'somewhat') and the percentage of banks responding 'reduced' ('considerably' and 'somewhat'). All opinions are weighted by the bank's market share in the relevant credit segment.

Source: the BNB.

in the second quarter of 2021, reflecting the gradual expiry of the extended moratorium on bank loan repayments³² and assumed repayments of a portion of deferred loans. With the expiry of the deadline for deferring obligations of bank clients, the share of non-performing loans in bank portfolios is likely to increase, which would reflect in higher interest rates on new loans and tightening of other credit conditions. The uncertainty about the future macroeconomic environment development amid the COVID-19 pandemic and comparatively subdued investment activity in Bulgaria would also dampen growth in credit to the private sector.

Interest Rates

Over the fourth quarter of 2020 interbank money market activity remained weak, dictated by a small number of transactions and low volumes. This dynamics continued reflecting the lack of incentive for trading in this market amid the ample banking system liquidity partially due also to BNB measures in March to increase bank liquid funds. LEONIA Plus index remained close to the interest rate on banks' excess reserves, accounting for -0.68 per cent as of December. The lack of significant fluctuations in both LEONIA Plus and €STR helped retain the negative spread between the two indices almost at its September 2020 level (-12 basis points as of December 2020).

Insignificant dynamics was also observed in deposit interest rates which, in the context of high liquidity and continuous inflows of funds attracted from residents, remained at attained low levels. The average weighted interest rate on new time deposits of non-financial corporations and households posted an additional slight drop from its August level (by 2 basis points), reaching in November a historically lowest value of 0.05 per cent. Interest rates on new time deposits of non-financial corporations in levs and euro remained negative, which helped retain the average weighted rate on non-financial corporations' deposits into negative territory (-0.04 per cent in November 2020). Weak dynamics was also

Overnight Interbank Money Market Rates (Average Monthly Value)

(per cent, percentage points)



Notes: &STR replaced EONIA on 2 October 2019. EONIA (euro overnight index average) will further be computed and published until the end of 2021 by applying a fixed spread to &STR.

LEONIA Plus replaced LEONIA on 1 July 2017. LEONIA Plus monthly values are calculated as an arithmetic average for days when overnight unsecured lending transactions are concluded in the interbank market in levs.

Sources: the BNB, the ECB.

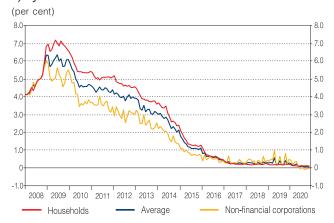
³² The BNB Governing Council's resolution of 2 December 2020 approved a request by the Association of Banks in Bulgaria for extending the deadlines specified in the loan repayments moratorium. For further details, see the BNB press release of 11 December 2020.

observed in deposit rates on household lev and euro deposits, which remained at about their August levels, averaging in November 0.11 per cent in national currency and 0.10 per cent in euro. Interest rates on new USD-denominated deposits were typically characterised by a slightly stronger volatility.

Between September and November 2020 interest rates on new loans to non-financial corporations and households remained at achieved low levels. Most likely, several factors have been pushing these rates to their low levels. First, retained robust inflows of attracted funds in the banking system have ensured sufficient financial resources to banks at low costs, thus determining retention of interest rates on new loans at their current low levels. Alternative use of liquidity by banks - to increase foreign assets, to purchase government securities or maintain excess reserves with the BNB - was probably related to still lower and even negative returns depending on the particular alternative. Secondly, lending survey outcome indicates more substantial tightening of the credit policy with regard to other credit conditions, such as collateral requirements, premiums on riskier loans and additional requirements to borrowers. Very likely, banks would not increase their rates on new loans in order to keep existing or attract new clients. Third, another factor is the extended deadline for clients to reschedule liabilities payable to banks, which defers in time an eventual inability of borrowers to service regularly their obligations and prevents part of the loans from becoming non-performing. In November, according to BNB data under the Procedure for Deferral and Settlement of Liabilities Payable to Banks and their Subsidiaries - Financial Institutions, loans of BGN 8.2 billion were approved, comprising 12.9 per cent of total loans and advances to non-financial corporations and households.³³ Finally, new lending rate dynamics is most likely to reflect also loans extended under the two government anti-crisis programmes in response to the COVID-19 pandemic. These programmes

Interest Rates on New Time Deposits

a) by sector



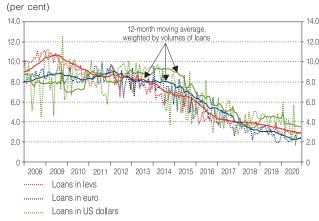
Notes: The average interest rate is calculated for all sectors, maturities and currencies weighted by the relevant volumes of new deposits. Average deposit rates for non-financial corporations and households are based on interest rates for all maturities and currencies weighted by relevant volumes of new business.

b) by currency



Notes: The average interest rate by currency is based on rates for all sectors and maturities weighted by relevant volumes of new business. Source: the BNB.

Interest Rates on New Loans to Non-financial Corporations by Currency



Source: the BNB

³³ As of November 2020 BNB data show that household loans approved under the Procedure for Deferral and Settlement of Liabilities Payable to Banks and their Subsidiaries – Financial Institutions amounted to BGN 1.7 billion or 6.5 per cent of total loans and advances to households, and those to non-financial corporations were BGN 6.5 billion or 17.2 per cent of total loans and advances to non-financial corporations.

provide for guaranteeing loans to corporations under reduced collateral requirements and lower interest rates along with interest-free loans to individuals, where certain conditions are met. Based on Bulgarian Development Bank data, as of January 2021 such loans totalled BGN 278 million, including BGN 160 million of approved corporate loans and BGN 118 million of interest-free ones to individuals.

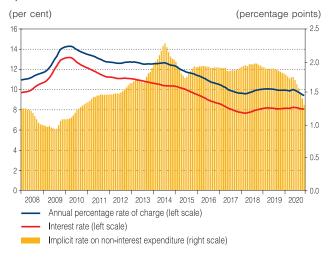
As of November 2020 the interest rate on new corporate loans was 2.9 per cent for lev-denominated, 2.4 per cent for euro-denominated, and 3.5 per cent for dollar-denominated. Tompared to August, a decline by 8 basis points in lev rates and by 7 basis points in dollar rates was observed, while euro rates rose by 12 basis points. Slight downward dynamics was reported in the annual percentage rate of charge (APRC) on new consumer and housing loans, which reached 9.4 per cent in consumer loans and 3.2 per cent in housing loans. Decreased APRC on new consumer loans (by 36 basis points from August) was due almost entirely to a drop in the implicit rate of non-interest expenditure.

Between September and November 2020 spreads between interest rates on new loans to corporations and households in Bulgaria and the euro area remained broadly unchanged.³⁵

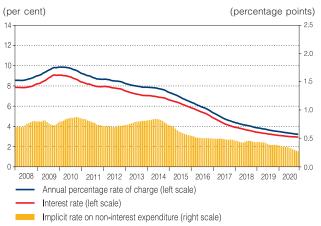
Over the first half of 2021 deposit interest rates are expected to remain at historically low levels, reflecting continuous inflows of attracted funds and ample banking system liquidity. Following the expiry of the deadline for deferring obligations of bank clients, the share of non-performing loans in bank portfolios is likely to increase, which would reflect in higher interest rates on new loans.³⁶

Interest Rates and Annual Percentage Rate of Charges on New Household Loans

a) consumer loans



b) housing loans



Notes: Data for 2020 cover the period to November inclusive. Interest rates in all maturities and currencies are weighted by the relevant volumes of new loans for a 12-month period. Implicit per cent is the difference between the APRC and the relevant interest rates and reflects the approximate per cent of all non-interest service charges on loans (including fees and commissions).

Source: the BNB.

Interest Rates on New Corporate and New Housing Loans: the Spread between Bulgaria and the Euro Area

(percentage points)



Note: Data for 2020 cover the period to November inclusive. Sources: the BNB, the ECB.

³⁴ Indicated values of interest rates on loans to non-financial corporations and households are weighted averages on a 12-month basis.

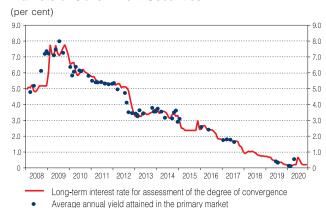
³⁵ Spreads are calculated as a difference between average interest rates in Bulgaria and the euro area across all maturities for the relevant type of credit, overall in national currency and euro, weighted by relevant volumes of new loans for a 12-month period.

³⁶ The projection of interest rates has been prepared without taking into account the effect of interest-free loans extended to individuals under the Programme for Guaranteeing Interest-free Loans adopted by Council of Ministers' Decision 257 of 14 April 2020 as part of Bulgarian government's anti-crisis measures in support of persons deprived from the opportunity to work due to the COVID-19 pandemic.

In the fourth guarter of 2020 no government securities auctions were held in the primary market. Given the lack of new primary market issues and strongly limited trade volumes in the secondary government bond market during the review period, in December the long-term interest rate used for assessing the degree of convergence fell marginally (by 1 basis point from its September level) to 0.19 per cent. At the same time, the downward trend observed since June 2020 in the yield of Bulgarian government bonds in international capital markets was sustained. Yield declines in December vis-à-vis September were recorded across all maturities (most pronounced in the long-end segment of the sovereign yield curve) reflecting both external and internal factors. The main external driver was the accommodative monetary policy stance maintained by the ECB. An internal country-specific factor pushing down Bulgaria's government bond yields over the fourth quarter was credit rating upgrades by Moody's in October. Concurrently, the spread between yields of Bulgarian and German government securities expanded as a result of a larger decrease in German government bond yields.

A resurgence of COVID-19 in the other EU countries and Bulgaria and introduced containment measures in the last quarter of 2020 and early 2021 could increase the uncertainty in financial markets over the first half of 2021 and the volatility of government bond yields, including in Bulgaria. At the same time, the accommodative monetary policy of the ECB will further have a limiting effect on the growth of government bond yields. Upcoming parliamentary elections and the related political uncertainty in Bulgaria remain an internal factor likely to push up Bulgarian government bond yields over the projection horizon.

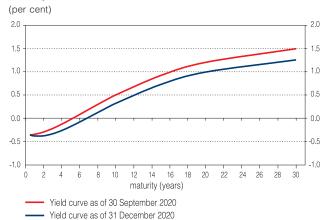
Long-term Interest Rates in the Primary and Secondary Markets of Government Securities



Note: The chart shows the yields reported on the primary and secondary markets of government bonds with ten-year-and-six-month original maturity. The frequency of auctions for issues with this maturity corresponds to the number of observations marked in blue.

Source: the BNB.

Reference Government Securities Yield Curve in Bulgaria



Notes: The reference yield curve of Bulgarian government securities is based on BNB own calculations under the extended version of the Nelson-Siegel-Svensson model (1994). The yield change refers to the previous quarter.

The chart employs daily yield data on Bulgarian government securities issued and traded in international capital markets, published in the MF Central Government Debt and Guarantees Monthly Bulletin.

Sources: the MF, BNB calculations.

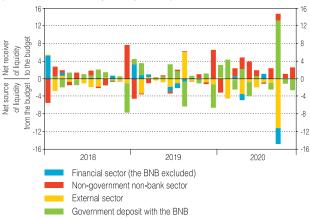
Financial Flows between Consolidated Budget and Other Sectors of the Economy

Government revenue and expenditure policies and budget financing operations affect the allocation of liquidity among economic sectors.³⁷

In the third guarter of 2020 the external sector was the main source of liquidity to the budget, reflecting the September eurobond issue in international capital markets to the amount of EUR 2.5 billion. EU grants received during the period (BGN 543 million) exceeded the amount of payments on Bulgaria's contribution to the EU budget and on foreign debt servicing (a total of BGN 242 million) which also contributed, though to a lesser extent, to the positive financial flows from the external sector to the budget. The non-government non-bank sector remained a net beneficiary of liquidity from the budget, with positive net financial flows redirected from the budget to this sector comprising 3.7 per cent of quarterly GDP. This positive effect of the budget on this sector's liquidity reflected also government's anti-crisis measures announced in July³⁸ and related largely to higher pension and staff payments, continued subsidised employment measures and the operation of automatic stabilisers in the budget. In the third quarter of 2020 the financial sector was a net source of liquidity to the budget (2.4 per cent of GDP for the quarter) as a result mainly of September issue eurobonds purchased by residents whose amount (BGN 1214 million) exceeded the value of government securities in the domestic market maturing in July (BGN 290 million). Liquid funds received from the external and financial sectors (excluding the BNB) went well beyond the positive net financial flows into the non-government non-bank sector during this period, as reflected in the growth of the government deposit with the BNB by BGN 3693 million as of end-September (11.7 per cent of GDP for the quarter) compared to end-June 2020.

Consolidated Budget Effect on Other Sectors' Liquidity (Monthly)

(share of GDP for the quarter, per cent)



Notes: This chart is based on monthly data of CFP implementation including also information obtained from MF monthly bulletins on state budget performance and major CFP indicators and MF Central Government Debt and Guarantees monthly bulletins. GDP data for the third quarter of 2020 from BNB macroeconomic forecast prepared in September 2020 are used to assess liquid flows in July and August 2020. Sources: the NSI, the BNB, BNB calculations.

³⁷ Division of economic sectors in this Section of the Economic Review is based on available information from monthly reports under the Consolidated Fiscal Programme and therefore does not coincide with the sector classification used in the National System of Accounts.

³⁸ New social and economic measures announced on 27 July 2020 in response to the COVID-19 pandemic are taken into account.

In October and November 2020 liquidity flows between the budget and the external and financial sectors (excluding the BNB) were limited in value. Rechanneling of liquidity from the budget to the non-government non-bank sector, which started after the state of emergency announced in March, continued over this period, its net amount reaching 3.4 per cent of projected³⁹ GDP for the quarter. Some of the main drivers for net rechanneling of liquid funds from the budget to this sector were the extension of anti-crisis measures by the government and reported declines in revenue from indirect taxes in the context of reduced consumer expenditure due to the significant increase of new COVID-19 cases and introduction of additional containment measures. The liquidity rechanneled as a result of the excess of non-interest budget expenditure over tax and non-tax revenue contributed to a decrease of the government deposit with the BNB (by BGN 1214 million in November against the end of September).

Based on preliminary data as of mid-January 2021, it may be concluded that the decrease in the government deposit by BGN 3769 million by end-December compared with the previous month (to BGN 8021 million) was primarily due to a significant amount of liquidity rechanneled from the budget to the non-government non-bank sector. This rechanneling is probably associated with the continuing operation of government's anti-crisis measures, end-year advance budget payments under the EU Common Agricultural Policy (CAP) and traditionally greater payments of budget spending units for this period of the year. Positive net financial flows to the nongovernment non-bank sector are likely to reflect also lower tax revenue in December, given the new containment measures against the spread of COVID-19 and subdued economic activity in Bulgaria.

In the first quarter of 2021 the non-government non-bank sector will possibly remain a net beneficiary of liquidity from the budget, taking into account measures set in 2021 budget in support of firms and households, planned higher pension, wage and health insurance expenses and potentially retained lower tax revenue amid subdued domestic demand. Maturing govern-

³⁹ The BNB macroeconomic forecast of December 2020 is used for projected GDP for the fourth quarter of 2020.

ment securities in the domestic market (to the amount of BGN 0.5 billion) over the first quarter of 2021 also constitute a factor for rechanneling liquidity from the budget to the financial sector (excluding the BNB). At the same time, EC reimbursements under the CAP, which are typical of the early year, and continuous grant payments under EU programmes are expected to be potential sources of liquidity from the external sector to the budget.

In the fourth guarter of 2020 the long-term upward trend in Bulgaria's international reserves was sustained, their market value (including valuation adjustments and price revaluations) rising by EUR 6.0 billion on end-2019 to EUR 30.8 billion (BGN 60.3 billion). The amount of gross international reserves reflects dynamics of financial flows generated in the process of external and internal economic factors interaction and corresponds to the BNB Issue Department balance sheet liabilities, according to the currency board principles. Robust growth in bank reserves with the BNB, and especially in excess reserves as a result of the BNB measures initiated in March, contributed most substantially to the increased liabilities of the BNB Issue Department at the end of 2020 vis-à-vis December 2019. The continued increase of currency in circulation also added to the growth in international reserves.

In the first half of 2021 it is possible that excess reserves maintained by banks on accounts with the BNB would decrease slightly. In the context of ample liquidity in the banking system and slowing growth in credit to the private sector, banks are expected to look for alternative and higher earning opportunities for investing free liquid funds through increasing their foreign assets and Bulgarian government securities portfolios, while observing BNB limits on bank exposures. At the same time, over the projection horizon minimum required reserves are anticipated to continue growing due to the rising deposit base. With regard to currency in circulation, we envisage that its annual growth rates will remain close to the current levels. Over the forecast horizon, developments in the government deposit with the BNB are expected to reflect mainly realised budget balance, the MF issuing policy and CAP funds normally paid by the EC at the start of the year.

3. Economic activity

In the third quarter of 2020 Bulgaria's real GDP rose by 4.3 per cent on a quarterly basis driven by the growth in all domestic demand components, while the contribution of net exports was strongly negative. The easing of containment measures in other EU countries and Bulgaria along with the targeted fiscal measures introduced to support vulnerable households and firms were among the main factors for the quarter-on-quarter real GDP growth in the third quarter of the year. During the review period labour market conditions improved compared to the second quarter: slowdown in the quarterly decrease of employment and a decline in the unemployment rate, as well as an increase in the nominal compensation of employees were observed.

In the fourth quarter short-term economic indicators give signs of maintaining the economic activity close to the previous quarter's level. The major factors, which will have a limiting effect on the real GDP dynamics in the last quarter of 2020, are the increased number of new COVID-19 cases in Bulgaria and re-tightening of containment measures.

If the assumptions of extending the anti-epidemic measures in Bulgaria and Bulgaria's major trading partners until the end of the first quarter of 2021 materialise, economic activity is expected to gradually recover on a quarterly basis, with the recovery being more pronounced in the second quarter of the year.

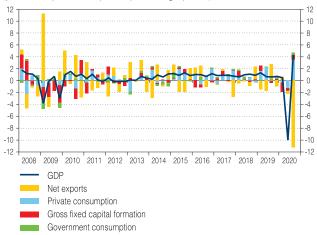
Current Economic Environment

Seasonally adjusted NSI national accounts data show that in the third quarter of 2020 economic activity recovered partially in Bulgaria and quarter-on-quarter real GDP growth of 4.3 per cent was reported. This growth was underpinned by the easing of containment measures in Bulgaria and abroad along with the targeted fiscal measures introduced to support vulnerable households and firms. Broken by GDP subcomponent, domestic demand had a positive contribution to the growth on a quarterly basis, while net exports contributed negatively due to the significantly higher quarterly growth of imports of goods and services compared to that of exports.

In the third quarter of 2020 private consumption increased in real terms by 5.2 per cent on a quarterly basis, exceeding its level of end-2019. Factors, which may have contributed to the consumption growth, include the increase in the nominal compensation of employees (by 1.5 per cent on a quarterly basis), the decline in the household savings rate⁴⁰ (from 21.2 per cent in

Contribution to GDP Growth by Final Use Component

(per cent, quarter-on-quarter percentage points)



Note: Non-additive data due to direct chain-linking and seasonal adjustment of GDP and its components; the contribution of the change in inventories has not been included.

Sources: the NSI, BNB calculations

Economic Activity

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⁴⁰ According to the NSI household budget survey. Household savings are measured by the difference between total nominal income and total nominal expenditure average *per* household member under the same survey. Household income, to which savings have been compared, is calculated by deducting expenditure on taxes, social contributions and regular transfers to other households from total household nominal income, according to the NSI household budget survey.

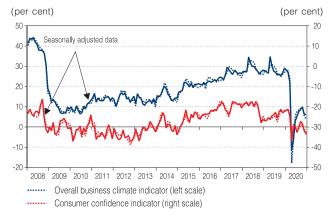
the second quarter of the year to 12 per cent in the third quarter⁴¹), and the credit growth to the private sector.⁴²

The third quarter of 2020 also saw an increase in the real volumes of government consumption on a quarterly basis by 2.2 per cent. This dynamics was driven by the accelerated growth in wage costs of the public sector coupled with higher healthcare expenditure as a result of the measures initiated by the government at the end of July to overcome the effects of the COVID-19 pandemic.

Over the guarter investment in fixed capital rose by 3.5 per cent on a quarterly basis in real terms. BNB estimates⁴³ show that this reflected the substantial increase in public investment, while private investment remained close to that of the previous quarter. The positive contribution of public investment to the change in gross fixed capital formation was mainly associated with the implementation of infrastructure projects financed by the national budget. No essential change was recorded in investment co-financed under EU programmes from the previous quarter. 44 The subdued dynamics of private investment was in line with the heightened uncertainty stemming from the spread of COVID-19, weaker external demand for Bulgarian goods and services, lower production capacity utilisation, and retained managers' sentiment below its long-term average value about future production activity in all main sectors. In the third quarter of 2020 the economic uncertainty indicator constructed by the BNB declined slightly from the April-June period, remaining, however, at a high level for both firms and households.

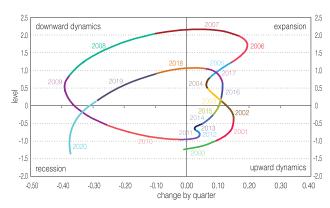
The negative contribution of net exports to the change in GDP in the third quarter of 2020 was driven by the significantly higher growth of imports of goods and services than that of exports. Imports of goods and services increased by 20.8 per cent on a quarterly basis

Business Climate and Consumer Confidence



Sources: the NSI, Eurostat, BNB calculations.

Business Climate Dynamics Indicator



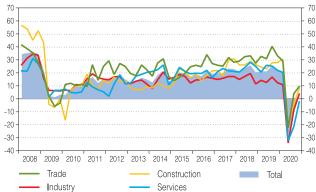
Notes: The chart compares the business climate level (the vertical axis) and its quarterly change (the horizontal axis). The business climate series has been transformed using the HP filter (with a parameter λ = 100) in order to eliminate short-term fluctuations, after which it has been standardised.

The four chart grids allow to distinguish the four phases of the business cycle.

Sources: the NSI, BNB calculations.

Expectations about Future Economic Activity

(balance of opinions, per cent; seasonally adjusted data)



Sources: the NSI, BNB calculations.

⁴¹ Similar dynamics in the savings rate was observed in the seasonal adjustment of data by the BNB.

⁴² For details on private consumption developments, see the box entitled Dynamics of Private Consumption in Bulgaria between January and September 2020, Macroeconomic Forecast, December 2020.

⁴³ The analysis employs data derived from quarterly nonfinancial accounts of the general government sector and consolidated fiscal programme implementation reports published by the NSI and MF, respectively.

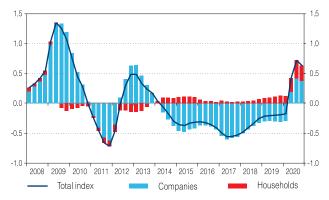
⁴⁴ The analysis employs data derived from consolidated fiscal programme implementation reports published by the MF.

in line with the growth of investment and private consumption, which have the largest import component in final demand elements. Exports of goods and services rose by 2.0 per cent quarter on quarter, this increase being limited by the still subdued external demand and the impeded cross-border movement of people and goods due to the containment measures implemented globally. By sub-component of exports, only goods reported growth, while the services group continued to decline as it was more severely affected by the anti-epidemic measures.

Economic indicators for the fourth quarter suggest retention of economic activity close to the third quarter level. According to seasonally adjusted data, the overall business climate indicator in the fourth quarter remained close to its previous quarter's level, reflecting indicator improvements in October before deteriorating in November and December. Negative developments in the last two months were consistent with the increasing spread of the pandemic and tightening of containment measures, which were the reason behind worsening of managers' assessments in construction, services and trade with regard to the present and future business situation in the country. The uncertain economic environment and weak demand remain among the main factors hampering business activities. According to Eurostat seasonally adjusted data on consumer confidence, in the fourth quarter of 2020 consumer sentiment indicator slightly declined on a quarterly basis, which is a precondition for households to remain cautious regarding final consumer expenditure.

In the period October-November 2020, NSI data on retail trade turnover reported a slower quarterly growth rate of real sales, remaining significantly below the level of the corresponding period in 2019 (-6.4 per cent as of November). During the same period quarterly growth of industrial production also decelerated significantly compared to the third quarter of 2020, driven by a decline in the production in mining and quarrying and production and distribution of electricity, heating and gas sectors, coupled with slower growth of production in the manufacturing sector. The structure of nominal industrial turnover indicates that these developments are due to low turnover of firms on external market, which implies more subdued dynamics of exports at the end of the year. Production activity in indus-

Uncertainty Indicator in the Economy (Corporations and Households)



Notes: Higher values of this indicator should be interpreted as an increase in uncertainty. Positive/negative values of the global indicator show that the uncertainty in the economy is above/below its long-run level. This indicator is constructed under a methodology presented in: Ivanov, E. 'Constructing an Uncertainty Indicator for Bulgaria', BNB Discussion Papers 109/2018, and corresponds to the indicator U1 constructed in the paper.

Sources: EC, BNB calculations.

Production Assured with Orders from Other Countries and Finished Goods Inventories

(balance of opinions, per cent; seasonally adjusted data)



Sources: the NSI, BNB calculations.

Factors Limiting Economic Activities of Corporations (share of corporations)

2008 Uncertain economic environment 2010 2012 Competition 2014 Insufficient 2016 demand 2018 2020 Shortage Financial of labour difficulties No difficulties Shortage of materials and/or adequate equipment and/or space

Note: Average for the period calculated as sector-weighted (industry, construction, trade and services).

Sources: the NSI, BNB calculations.

Real GDP Growth by Final Use Component

(per cent, on a quarterly basis; seasonally adjusted data)

		2016				2	017			2	018			2	019			2020	
	- 1	Ш	Ш	IV	1	II	III	IV	1	Ш	III	IV	1	Ш	III	IV	I	Ш	Ш
Consumption	1.3	-0.1	0.7	2.1	-0.1	1.5	1.3	1.7	1.3	0.6	1.1	0.1	1.5	2.4	0.1	0.5	0.0	-1.0	3.2
incl.																			
Household consumption	1.4	-1.2	0.9	3.2	-1.1	1.4	1.5	2.7	1.0	0.2	0.8	-0.6	2.6	3.6	-0.3	-0.1	-0.5	-2.2	5.3
Government final consumption expenditure	n -0.8	2.5	0.2	1.9	0.8	-0.7	1.4	0.6	2.7	1.4	1.1	-0.5	1.4	0.2	0.6	1.9	-1.0	0.8	2.4
Collective consumption	-0.7	2.6	1.5	1.2	1.9	0.5	1.3	1.1	0.4	2.5	-0.1	2.1	-2.0	0.8	2.7	0.6	3.4	0.0	1.1
Gross fixed capital formation	-5.7	-2.3	0.1	-1.7	1.7	3.8	-0.6	0.8	4.7	0.1	-1.7	0.6	4.6	0.2	-1.5	1.1	-8.2	-2.5	3.5
Exports of goods and non-facto services	r 3.0	4.6	0.1	1.2	1.8	2.0	1.7	-2.2	0.4	1.1	-0.4	4.3	-0.2	-2.0	5.1	-0.8	0.6	-22.2	2.0
Imports of goods and non-facto services	r 1.0	1.7	1.9	1.4	2.1	1.5	1.9	1.9	1.2	1.4	0.5	1.2	1.7	0.7	1.4	0.7	0.0	-21.3	20.8
GDP	1.0	1.0	0.7	1.1	0.8	0.8	0.8	0.7	0.6	0.9	1.0	0.9	1.3	0.6	0.6	0.6	0.4	-10.1	4.3

Source: the NSI.

Real GDP Growth by Final Use Component

(per cent, on an annual basis)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Consumption	2.7	-3.8	0.5	2.0	1.8	-1.6	1.8	2.7	2.5	3.0	3.5	3.6
incl.												
Household consumption	2.3	-2.8	0.1	1.7	2.0	-1.7	1.8	2.2	2.1	2.2	2.6	3.2
Government final consumption expenditure	1.0	-0.8	-0.2	0.3	-0.3	0.0	0.1	0.0	0.1	0.2	0.5	0.2
Collective consumption	-0.7	-0.2	0.6	0.1	0.0	0.1	-0.1	0.3	0.2	0.4	0.4	0.1
Gross fixed capital formation	6.2	-5.8	-4.9	-1.0	0.4	0.1	0.7	0.6	-1.4	0.6	1.0	0.9
Exports of goods and non-factor services	1.3	-6.2	4.7	6.3	1.2	5.8	2.0	4.2	5.5	3.7	1.1	2.5
Imports of goods and non-factor services	-3.5	15.5	0.5	-5.3	-3.3	-2.8	-3.4	-3.1	-3.3	-4.4	-3.6	-3.3
GDP	6.1	-3.4	0.6	2.4	0.4	0.3	1.9	4.0	3.8	3.5	3.1	3.7

Source: the NSI.

try in November 2020 declined by 5.0 per cent from the same period of previous year.

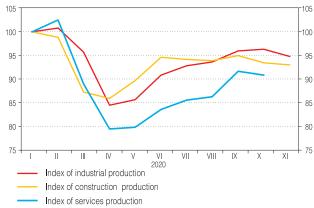
Construction sector output fell by 1.2 per cent for the period October-November 2020 compared to the third quarter of the year, which was attributable to both the building and civil/engineering construction. This may be an indication of subdued investment activity in the fourth quarter of 2020.

According to Eurostat data, the index of services production for October 2020 dropped slightly on a quarterly basis, with this sector still being one of the most severely hit by the measures against the pandemic.

The economic indicators dynamics shows that the tightening of the containment measures at the end of the year will put an end to the recovery of the economic activity in Bulgaria, which started in the third quarter of 2020. If the assumptions of extending the containment measures in Bulgaria and abroad until the end of the first quarter of 2021 materialise, the

Dynamics of the Index of Industry, Construction and Services Production in 2020

(January 2020 = 100; seasonally adjusted data)



Sources: the NSI, Eurostat, BNB calculations.

recovery of the economic activity is expected to resume gradually on a quarterly basis in the country from the beginning of 2021, with the recovery being more pronounced in the second quarter of the year. Recovery will be driven by both improved domestic demand and the switch to a positive contribution of net exports to the change in the economic activity. The fiscal policy is expected to contribute positively to the economic activity mainly through an increase in net transfers to households and, to a lesser extent, through government investment.

Exports and Imports of Goods and Services

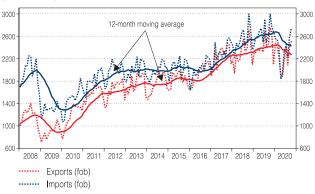
The global spread of COVID-19 and the measures to contain it had a strong negative effect on Bulgaria's foreign trade flows in the January-September 2020 period. Foreign trade data show that Bulgaria's exports of goods in the first nine months of 2020 declined considerably on an annual basis by -7.2 per cent in nominal terms and most strongly in April and May. Nonseasonally adjusted national account GDP data suggested that the nominal decline in exports of goods in the January-September 2020 period was due to a year-on-year decrease in both real volumes and prices. Mineral products and fuels⁴⁵ and machines⁴⁶ had the largest contribution to the nominal decline in exports of goods, while the commodity groups including base metals⁴¹, animal and vegetable products⁴⁸ and wood products, paper, ceramics and glass recorded year-on-year growth of exports. According to BNB calculations⁴⁹, dynamics of goods exports in real terms is similar to that in nominal terms, with only animal and vegetable products posting an annual decline in real volumes, while registering growth in nominal terms.

The negative contribution of mineral products and fuels in the first quarter of 2020 was entirely

 45 In this chapter it should read mineral products and fuels group under the Combined Nomenclature.

Dynamics of Nominal Exports and Imports of Goods





Source: the BNB.

⁴⁶ In this chapter, it should read the machines, vehicles, appliances, instruments and weapons group under the Combined Nomenclature.

⁴⁷ In this chapter, it should read the base metals and their products group under the Combined Nomenclature.

⁴⁸ In this chapter, it should read the animal and vegetable products, food, drinks and tobacco group under the Combined Nomenclature.

⁴⁹ Real volumes of imports have been constructed under the commodity groups of Standard International Trade Classification (SITC) by using NSI data on export prices of the commodity group and nominal values of exports of the commodity group under the SITC.

Exports by Commodity Group, January-September 2020

	Value (EUR million)	Change* (EUR million)	Growth** (per cent)	Contribution**, percentage points
Wood products, paper, ceramics and glass	1,084.8	36.0	3.4	0.2
Machines, vehicles, appliances, instruments and weapons	5,610.2	-498.8	-8.2	-2.2
Mineral products and fuels	1,815.7	-1,022.1	-36.0	-4.6
Base metals and related products	3,300.0	115.9	3.6	0.5
Animal and vegetable products, food, drinks and tobacco	3,537.1	75.9	2.2	0.3
Textiles, leather, clothing, footwear and other consumer goods	2,350.6	-251.7	-9.7	-1.1
Chemical products, plastics and rubber	2,883.5	-62.3	-2.1	-0.3
Total exports	20,582.0	-1,607.1	-7.2	-

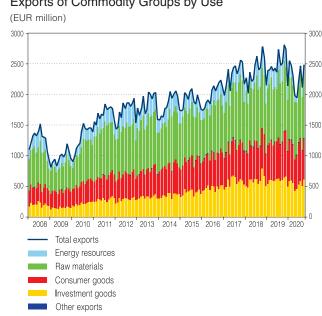
^{*} Change on the corresponding period of the previous year.

ascribable to the strong fall in crude oil prices, while real volumes of exports increased⁵⁰. As a result of weaker external demand and one-off supply side factors, real volumes of exported mineral products and fuels also exhibited a decline⁵¹ on an annual basis, which coupled with the continuing strong annual fall in oil prices, led to a sharp drop in nominal exports of the group.

The group of machines posted a decline in real volumes on an annual basis only in the second quarter of the year, which is likely due to the anti-epidemic measures introduced by Bulgaria's major trading partners and the deteriorated global economic activity. Concurrently, the export prices in the group dropped on an annual basis in each of the three quarters of 2020, contributing substantially to the registered year-on-year fall in nominal exports of the commodity group over the period under review.⁵²

Base metals and animal and plant products had the largest positive contribution to the nominal change in goods export over the January-September 2020 period. Based on BNB calculations, exports growth in the base metals group was driven by an increase in real volumes⁵³, while

Exports of Commodity Groups by Use



^{**} Growth/contribution to growth of total exports over the period on an annual basis. Source: the BNB.

 $^{^{\}rm 50}\,\mbox{Real}$ volumes of exports of mineral products and fuels have been constructed by using NSI data on export prices and nominal values of exports of the commodity group under the SITC

⁵¹ Scheduled refurbishment of production facilities in the largest Bulgaria's refinery in the second quarter of 2020 reduced the capacity of crude oil refining. For more details: PJSC "LUKOIL",1Q 2020 Results Conference Call and Webcast Transcript, June 4, 2020

⁵² Real volumes of machine exports have been constructed by using NSI data on export prices and nominal values of exports of the commodity group under SITC.

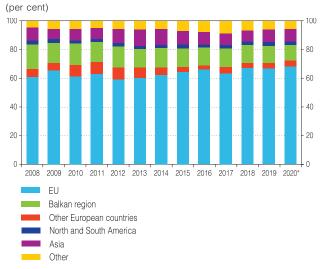
⁵³ The rise in output on an annual basis over the review period in one of the largest Bulgaria's metal processing plants made a positive contribution. For details, see: https://www. aurubis.com/binaries/content/assets/aurubisrelaunch/files/finanzberichte-de/2019-20/q4/aurubis_company-release-fy_19_20.pdf.

export prices declined on an annual basis.54 In the first nine months of the year, the nominal export growth in the animal and vegetable products group was attributable to a rise in the price component, while the real volumes of exports of the group dropped on an annual basis⁵⁵. Cereals had the major negative contribution to the real change in exports of animal and vegetable products, probably also due to the weaker harvest in 2020^{56}

In the January-September 2020 period exports of goods to EU countries⁵⁷ decreased year on year by 5.7 per cent, which was mainly ascribable to the groups of machines, mineral products and fuels, and textile and leather⁵⁸. By country, exports to Germany, Bulgaria's major trading partner, and Belgium posted an increase, while exports to Bulgaria's other EU key trading partners recorded a decline. Concurrently, exports to non-EU countries decreased by 10.3 per cent on an annual basis, with exports to Turkey contributing most negatively. As a result, the share of exports to the EU in total Bulgaria's exports increased to 68 per cent from January to September 2020 against 66.9 per cent in the corresponding period of the previous year.

The balance of payments data for the beginning of the fourth quarter of 2020 signalled a significant further decline on an annual basis in goods exports in nominal terms. The annual decline in real exports of goods is expected to slow down significantly in the first quarter of 2021, and exports are expected to start increasing on an annual basis from the second quarter in line with external demand dynamics. Export price dynamics is expected to be similar to that of real volumes, with export prices declining on an

Exports of Goods: Geographical Breakdown



^{*} Data for 2020 refer to January-September. Source: the BNB.

Imports of Commodity Groups by Use, January-September 2020

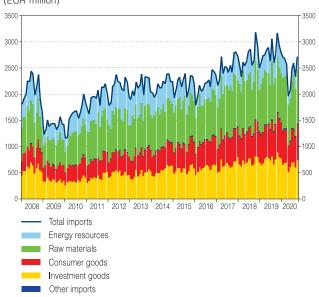
	Value (EUR million)	Change* (EUR million)	Growth** (per cent)	Contribution** (percentage points)
Consumer goods	5,400.9	-161.0	-2.9	-0.6
Raw materials	8,474.5	-273.4	-3.1	-1.1
Investment goods	5,904.4	-743.2	-11.2	-3.0
Energy resources	2,182.2	-1,567.4	-41.8	-6.3
Other imports	148.8	13.5	10.0	0.1
Total imports (cif)	22,110.8	-2,731.5	-11.0	-

^{*} Change on the corresponding period of previous year.

Source: the BNB.

Imports of Commodity Groups by Use

(EUR million)



⁵⁴ Real volumes of exports of the base metals group have been constructed by using NSI data on export prices and nominal values of exports of the commodity group under the SITC

⁵⁵ Real volumes of animal and vegetable products exports have been constructed by using NSI data on export prices and nominal values of exports of the commodity group under

⁵⁶ According to the first estimates of Economic accounts for Agriculture, final output in cereal crops in 2020 dropped in real terms by 21.2 per cent from 2019: https://www.nsi.bg/en/ content/4275/first-estimate-%E2%80%93-national-level

⁵⁷ EU data for 2020 include the United Kingdom due to the comparisons made with previous years and the fact that there are no major changes in the trade relations between the EU and the United Kingdom over the transition period.

⁵⁸ In this Chapter, it should read the textiles, leather, clothing, footwear and other consumer goods group under the Combined Nomenclature.

^{**} Growth/contribution to total import growth over the period on an annual basis

annual basis in the first quarter of 2021 before increasing in the second quarter.

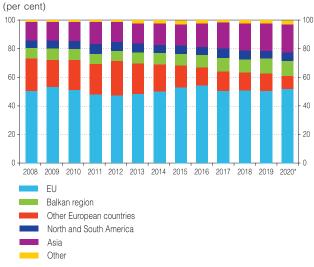
In the January–September 2020 period nominal imports of goods recorded a fall of 11.0 per cent on an annual basis⁵⁹ driven by a decline in both import prices and real volumes⁶⁰. Energy resources contributed most to the annual fall in nominal imports of goods followed by the group of investment goods. The decline in the nominal imports of energy resources was driven by a decrease on an annual basis in both real volumes and import prices.⁶¹ The nominal annual decline in the imports of investment goods was mainly associated with a drop in real volumes and, to a lesser extent, in import prices on an annual basis.⁶²

The share of EU goods imported in Bulgaria rose to 52.3 per cent in the January-September 2020 period from 51.1 per cent for the same period of 2019. This reflected the lower year-on-year decline in imports from EU countries (-9.0 per cent) compared to that from non-EU countries (-13.1 per cent). Germany and Italy contributed most to the year-on-year decline in imports from the EU in nominal terms and Russia and Turkey to imports from non-EU countries.

According to balance of payments data for October 2020, nominal imports of goods continued to fall significantly on an annual basis. The annual decline in real exports of goods is expected to moderate significantly in the first quarter of 2021 and to start increasing on an annual basis from the second quarter of the year. Its dynamics will follow to a large extent the expectations of domestic demand and exports developments. The import price component is expected to decrease on an annual basis in the first quarter of 2021, followed by an increase in the second quarter.

According to balance of payments data for the January-October 2020 period, exports and imports of services fell significantly on an annual basis. According to non-seasonally adjusted

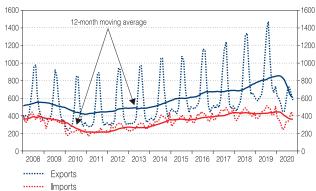
Imports of Goods: Geographical Breakdown



* Data for 2020 refer to January-September. Source: the BNB.

Dynamics of Exports and Imports of Services

(EUR million)



⁵⁹ NSI foreign trade data.

⁶⁰ Non-seasonally adjusted national account GDP data.

⁶¹ Real volumes of energy products imports have been constructed by using NSI data on imports prices of the commodity group and nominal values of imports of the commodity group under SITC.

⁶² Real volumes of imports of machines, equipment and vehicles have been constructed by using NSI data on imports prices of the commodity group and nominal values of imports of the commodity group under SITC.

national account data, in the first nine months of 2020 the real component had a major negative contribution to the nominal decline in exports and imports of services on an annual basis, while price falls contributed to a significantly lesser extent.

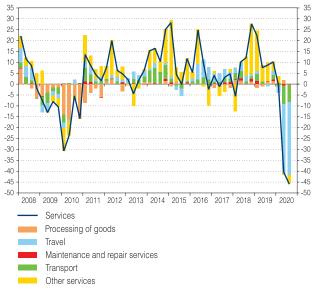
Exports of services fell by 33.6 per cent in nominal terms in January-October 2020 compared with the corresponding period of the previous year, with declines in travel earnings (-63.4 per cent) and transport services (-32.7 per cent) contributing most. The major reason behind these declines was the strong restrictions on the operation of accommodation establishments and impeded travel services in the context of the COVID-19 pandemic. Based on NSI data, in the January-October 2020 period the fall in the number of visits of foreign nationals to Bulgaria was 60.6 per cent on an annual basis. The NSI surveys conducted among managers of accommodation establishments indicated worsening sentiment in tourism in November 2020 compared to the previous month, which may be explained by the reintroduction of some of the containment measures. Worsened sentiment reflected in the increased share of firms intending to cease operations temporarily or permanently and a higher number of managers who launched measures such as 'paid leave', 'unpaid leave', 'reduction in staff remuneration' and 'teleworking' with respect to the hired employees.

In the January-October 2020 period imports of services fell nominally by 22.5 per cent on an annual basis. This was mostly driven by the reduced expenditure of Bulgarian nationals on travel (-40.9 per cent) and transport (-20.7 per cent) abroad. NSI data for this period indicate that the total number of Bulgarians' visits abroad dropped by 44.1 per cent year on year.

Goods and services imports are projected to rise on an annual basis in real terms in the first and second quarters of 2021, while resumption of the annual growth in services exports may be expected in the second quarter of 2021. The main prerequisites for this dynamics are fulfilment of the assumption for extending the containment measures against COVID-19 in other EU countries and Bulgaria to the end of the first quarter of 2021 and the expectations of domestic and external demand developments in Bulgaria.

Annual Change of Services Exports and Contribution by Sub-component

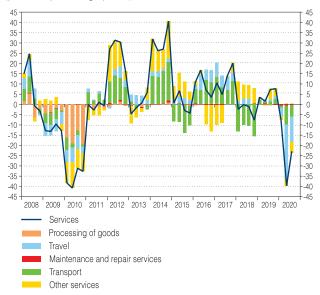
(per cent, percentage points)



Source: the BNB.

Annual Change of Services Imports and Contribution by Sub-component

(per cent, percentage points)



Behaviour of Firms and Competitiveness

In the third quarter of 2020 real value added in the total economy rose by 3.9 per cent from the previous quarter. Economic activity increased only in the services sector in line with the easing of containment measures in Bulgaria against COVID-19, while lower orders from Bulgaria and abroad assured industrial sector firms' production continued to dampen production activity in this sector. The agriculture sector recorded a decline in value added quarter on quarter corresponding to the NSI preliminary data on agricultural output for 2020 which show a decrease of 12.2 per cent compared to 2019.

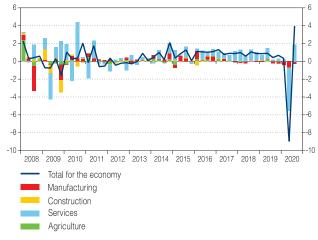
Between July and September 2020 value added in industry fell on a quarterly basis for the fifth consecutive quarter with a decline rate of -0.9 per cent entirely due to the manufacturing sub-sector, while construction sub-sector's value added remained close to its previous quarter's level. Despite the downward dynamics in industry gross value added, the NSI data on short-term business statistics indicated an increase in the industrial production and turnover indices in industry, as well as an increase in the construction production index in the third quarter of 2020. Over the same quarter the industrial production index rose by 8.2 per cent on a quarterly basis due mainly to manufacturing and, to a lesser extent, to production and distribution of electricity and heating sub-sectors, while mining and quarrying recorded a decline.

In the third quarter of 2020 gross value added in the services sector increased by 2.6 per cent on a quarterly basis, with trade, transport and accommodation and food service activities subsector having the highest contribution. Detailed data on the index of services production suggest that food service activities recorded the highest recovery on a quarterly basis in the third quarter (quarterly growth of 41 per cent)⁶³.

Economic indicators on the dynamics of production and turnover in industry, construction and services in the October-November 2020 period signal that over the fourth quarter the recovery of economic activity which started in the third quarter

Value Added Growth and Contribution by Sector

(per cent, percentage points, quarter on quarter; seasonally adjusted data)



Note: Non-additive data on contributions due to direct seasonal adjustment of value added and its components.

Sources: the NSI, BNB calculations.

Industrial Turnover Dynamics

(per cent, percentage points, quarter on quarter; seasonally adjusted data)



Sources: the NSI, BNB calculations.

Construction Production Dynamics and New Buildings Permits Issued



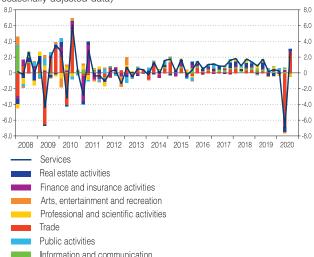
Sources: the NSI, BNB calculations

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⁶³ Production recovered partially in the context of a significant cumulative decline of 43.6 per cent in the first two quarters of 2020. According to seasonally adjusted data, in the third quarter the index of services production in food service activities remained 20.5 per cent below its level of the fourth quarter of 2019.

Services Value Added Change and Contribution by Sub-sector

(per cent, percentage points, quarter on quarter; seasonally adjusted data)



Note: Non-additive data on contributions due to direct seasonal adjustment of value added and its components.

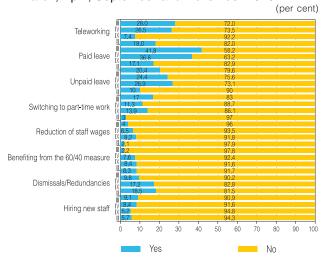
Sources: the NSI, BNB calculations.

of 2020 will end in the context of the tightening of COVID-19 containment measures.

In October-November the growth rate of nominal industrial turnover slowed down significantly from the third quarter mainly due to the decline in volumes in international markets and, to a lesser degree, to lower domestic market sales. At the same time, seasonally adjusted industrial production index remained at a level similar to that of the third quarter⁶⁴. Between October and November 2020 the construction production index dropped by 1.2 per cent compared to the third quarter, reflecting the decline in both building⁶⁵ and civil/engineering⁶⁶ construction. Adverse developments were also observed in services, with the index of services production⁶⁷ falling by -0.3 per cent month on month in October 2020. Assuming a gradual ease of COVID-19 containment measures in Bulgaria and abroad, a steady recovery in economic activity is expected to start from the beginning of 2021, more pronounced in the second quarter of the year.

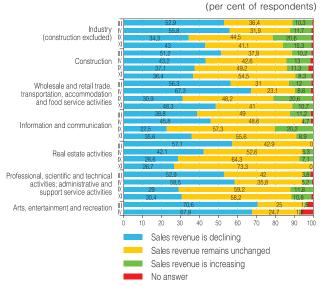
⁶⁴ In October the index of industrial production rose by 0.4 per cent on a quarterly basis, followed by a decline of -1.5 per cent in November 2020, according to seasonally adjusted data.

Measures Taken by the Firms in Relation to Their Staff in March, April, September and November 2020



Source: the NSI

Changes in Firms' Revenue from Sales (Compared to the Previous Month) in March, April, September and November 2020 under the State of Emergency



Source: the NSI

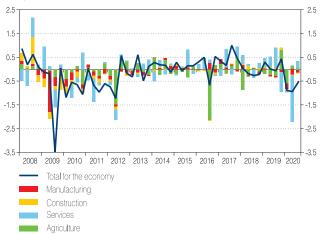
⁶⁵ Building construction includes construction of residential and non-residential buildings.

⁶⁶ Civil and engineering construction covers infrastructure construction of roads, bridges, pipes, power lines, gas pipelines, telecommunications and other construction works.

⁶⁷ Eurostat seasonally adjusted data are used.

Contribution to Changes in the Number of Employed by Economic Sector

(per cent, percentage points, quarter on quarter; seasonally adjusted data)

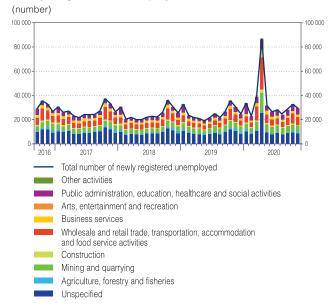


Note: Non-additive data on contributions due to direct seasonal adjustment of the total amount and its components.

Sources: the NSI, BNB calculations.

Despite the easing of COVID-19 containment measures and the ensuing increase in the value added in the total economy, in the third quarter of 2020 employment in the total economy fell by 0.5 per cent from the previous quarter, according to seasonally adjusted NSI national account data. The industry sector had the largest negative contribution to the change in employment, while services and agriculture contributed positively. A decline in employment across industrial sub-sectors was recorded in both manufacturing and construction, while the highest increase in services employment was registered in information and communication, financial and insurance activities and public administration; education, and human health and social work activities. Hours worked per person over the quarter increased by 9.3 per cent quarter on quarter, which probably reflected the return of part of the employees to full-time work, as decided by firms negatively affected by the COVID-19 containment measures in the second quarter of 2020. According to the Employment Agency data, newly registered unemployed declined in all main sectors which was attributable to both seasonal factors and improved economic activity in Bulgaria. Tightening of anti-epidemic measures by the end of 2020 and worsening of economic indicators over the period October-November are indicative of a slight decline in employment in the fourth quarter. The expected quarter-onquarter increase in the economic activity in the first half of 2021 and the extended validity of government's measure to preserve employment

Newly Registered Unemployed in Labour Offices



Source: the Employment Agency.

Labour Productivity Dynamics (Value Added *per* Employee)

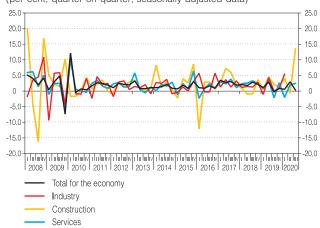
(per cent, quarter on quarter; seasonally adjusted data)



Source: the NSI.

Compensation per Employee at Current Prices

(per cent, quarter on quarter; seasonally adjusted data)



Sources: the NSI, BNB calculations.

until the end of March 2021 will be a precondition for growth in the number of employed on a quarterly basis combined with the gradually decreasing unemployment rate.

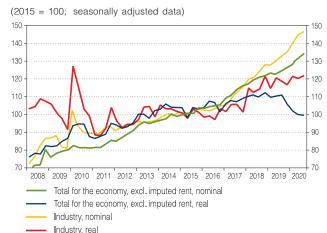
In the third quarter of 2020 labour productivity improved on a quarterly basis (4.4 per cent) as a result of the reported value added growth along with a slight decline in employment. Labour productivity growth was favoured by the increase in hours worked *per* employee due to the easing of COVID-19 containment measures in Bulgaria. Projected recovery of economic activity towards sustainable growth path in the first two quarters of 2021 is expected to further support labour productivity growth on a quarterly basis.

The growth rate of compensation *per* employee in nominal terms slowed down on a quarterly basis to 0.4 per cent in the third quarter of 2020 compared with 3.1 per cent in the second quarter. The increase in hours worked *per* employee, and hence in labour productivity was a factor contributing to the wage growth in the total economy. Other factors underpinning growth include higher wages in the public sector and a smaller share of firms intending to reduce wages as an anti-crisis measure to optimise labour costs, according to the NSI surveys⁶⁸.

In the first and second quarters of 2021 compensation *per* employee is expected to continue rising on a quarterly basis as a result of approved public wage increases in the education sector and in minimum wage to BGN 650 since 1 January 2021, as compared to BGN 610 in 2020. In the context of a continued heightened uncertainty, companies are likely to remain more cautious in respect of their expenditure policies and wages in the private sector are expected to grow at slower rates than in the public sector.

According to seasonally adjusted data, the dynamics of compensation *per* employee and labour productivity in the third quarter of 2020 resulted in higher unit labour costs in nominal terms (by 1.1 per cent on a quarterly basis), while in real terms a slight decline (-0.2 per cent) was recorded. The highest increase in nominal unit labour costs was reported in the manufacturing sector, followed by services.

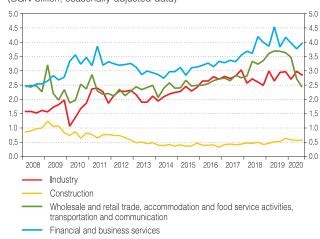
Unit Labour Costs



Sources: the NSI, BNB calculations.

Gross Operating Surplus at Current Prices

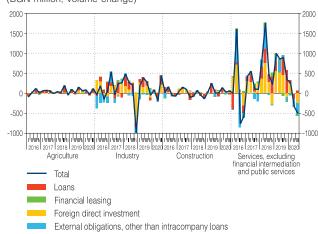
(BGN billion; seasonally adjusted data)



Sources: the NSI, BNB calculations

Financing Sources*

(BGN million, volume change)



^{*} Source: the BNB.

⁶⁸ According to NSI surveys on the effects of the state of emergency on business.

Gross Value Added Change

(per cent, on a quarterly basis; real rate, seasonally adjusted data)

		20	16			20	17			20	18			20	19			2020	
	1	Ш	Ш	IV	I	Ш	Ш	IV	1	Ш	Ш	IV	I	Ш	Ш	IV	1	П	Ш
Agriculture, forestry and fishing	5.9	0.2	3.8	-1.2	6.0	0.5	1.4	0.7	-2.4	-1.5	0.9	0.1	0.7	2.5	0.6	-0.4	-1.9	-0.5	-1.9
Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities	3.8	0.5	1.7	2.3	0.0	1.1	-0.1	-0.5	-0.3	-0.8	-0.2	-0.3	-0.4	0.4	-1.1	-1.3	-1.6	-3.4	-0.9
Construction	-11.0	1.2	1.3	1.1	1.1	1.1	0.0	-0.3	0.5	-0.3	0.8	1.3	0.9	1.3	-0.1	-0.5	-0.6	-0.9	0.0
Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities	-1.2	2.1	0.6	1.0	0.8	0.6	0.4	1.4	1.5	0.1	1.0	1.3	0.7	0.6	0.6	0.1	0.7	-21.8	10.6
Information and communication	7.6	1.5	1.0	1.7	-0.4	3.3	2.7	2.8	2.1	2.9	2.9	3.5	3.7	2.9	1.8	1.8	1.4	1.8	-0.8
Financial and insurance activities	3.6	2.9	-1.7	2.2	-0.9	-0.4	2.0	-1.8	2.2	0.0	1.5	0.7	0.4	1.0	-0.2	2.6	-0.1	2.0	0.2
Real estate activities	3.2	0.8	1.9	1.1	2.1	2.5	-0.7	4.6	3.6	1.3	3.5	2.5	-1.0	4.8	-2.0	-2.4	-0.9	-4.2	1.6
Professional, scientific and technical activities; administrative and support service activities	-1.7	1.5	0.1	-0.3	0.4	0.1	1.0	2.2	2.6	2.0	3.2	0.1	6.0	2.3	1.2	3.6	-1.9	1.4	-3.5
Public administration, education, human health and social work activities	-2.1	0.5	0.9	1.0	2.7	0.2	0.9	0.9	0.6	1.1	0.7	0.8	-0.4	-0.1	0.9	0.2	1.4	0.8	0.3
Culture, sport and entertainment; other activities; activities of households as employers; non-identified activities of households producing goods and services for own use; activities of extraterritorial organisations and bodies	-1.6	0.2	-0.9	1.2	2.3	0.7	2.7	0.3	1.0	-0.6	1.0	-0.4	-0.8	5.0	-3.7	-0.7	-1.3	-4.8	-0.9
Gross value added, total for the economy	1.1	1.1	1.0	1.1	1.3	0.8	0.9	0.8	1.0	0.6	1.0	0.9	0.8	0.9	0.4	0.7	0.3	-9.0	3.9

Source: the NSI.

Gross Value Added Change

(per cent, on an annual basis)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture, forestry and fishing	31.8	-8.9	-11.9	5.9	-11.1	3.5	7.0	-7.9	7.7	9.0	-2.0	4.1
Mining and quarrying; manufacturing; electricity, gas, steam and air conditioning supply; water supply; sewerage, waste management and remediation activities	2.3	-7.4	-4.9	7.7	3.0	0.1	3.8	3.2	7.3	3.3	-1.5	-1.2
Construction	15.1	6.8	-18.7	-4.0	-4.5	0.3	-3.4	4.3	-7.3	4.5	1.4	3.6
Wholesale and retail trade; repair of motor vehicles and motorcycles; transportation and storage; accommodation and food service activities	-2.9	-4.3	13.6	3.1	-0.2	3.7	0.7	7.1	1.0	2.8	3.9	3.1
Information and communication	74.2	-2.5	0.3	12.4	-3.2	2.1	0.7	2.2	16.5	6.1	10.6	13.1
Financial and insurance activities	10.5	13.2	24.7	-3.3	-4.7	-7.5	0.0	-0.9	6.9	1.0	2.7	3.0
Real estate activities	-5.0	1.2	3.6	0.0	2.9	-2.2	2.2	2.4	5.9	7.2	11.4	4.9
Professional, scientific and technical activities; administrative and support service activities	-7.8	7.7	-7.1	2.6	-3.8	3.3	1.0	9.8	1.7	1.3	9.0	12.7
Public administration, education, human health and social work activities	1.0	0.9	2.8	-2.6	3.0	-5.1	4.1	2.2	-3.1	5.8	3.1	0.3
Culture, sport and entertainment; other activities; activities of households as employers; non-identified activities of households producing goods and services for own use; activities of extraterritorial organisations and bodies	33.9	7.1	-15.2	15.6	-6.1	1.7	2.4	8.7	-0.2	5.5	2.6	1.1
Gross value added, total for the economy	6.2	-1.0	0.8	2.6	-0.4	-0.2	2.2	3.5	3.5	4.2	3.5	3.3

Source: the NSI.

Seasonally adjusted data show that the gross operating surplus at current prices recovered partially in the third quarter of 2020 (quarterly growth of 0.9 per cent), but on an annual basis remained 5.8 per cent below its level of the corresponding period last year. In line with value added developments, the services sector and in particular public administraion; education, and human health and social work activities and financial and insurance activities sub-sectors had the major positive contribution to the change in the operating surplus. Concurrently, firms' profits in the manufacturing sub-sector of the industrial sector fell from the previous quarter. In the third quarter of 2020 external funds attracted by firms for financing business posted an increase from the previous guarter (sources of financing other than gross operating surplus). This increase was supported by firms in industry and, to a lesser extent, by agricultural sector and construction, while in terms of sources of financing, it was concentrated in bank loans. Services sector posted a decline in attracted funds over the quarter (mainly in loans and FDI), which probably reflected the uncertain economic situation in Bulgaria.

GDP growth decomposition by production factors suggests that labour had a positive contribution to the quarter-on-quarter GDP change in the third quarter of 2020 due to the strong increase in working hours *per* employee. Total factor productivity and capital continued to contribute negatively. Capital factor dynamics was driven by lower production capacity utilisation as a result of the reduced production due to the containment measures in the country and subdued external demand for Bulgarian goods.

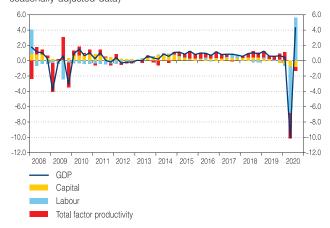
Household Behaviour

As a result of the easing of COVID-19 containment measures in the third quarter of 2020, labour market conditions improved compared to the previous quarter. Households increased consumption and labour supply on a quarterly basis, while the savings rate declined.

The NSI Labour Force Survey shows that labour supply, as measured by the labour force, rose on a quarterly basis in the third quarter of 2020⁶⁹, and its decrease on a annual basis slowed down from the second quarter of the year. Labour force declines moderated in the

Contribution of the Change in Production Factors to GDP Growth

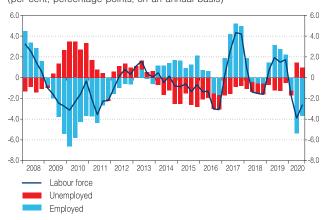
(per cent, percentage points, quarter on quarter; seasonally adjusted data)



Sources: the NSI, BNB calculations

Contribution to the Change in Labour Force by Component

(per cent, percentage points; on an annual basis)



Sources: the NSI, BNB calculations.

 $^{^{\}rm 69}\,\rm Quarterly$ growth is calculated based on BNB seasonally adjusted data.

third quarter compared to the second quarter, largely driven by the smaller decrease in employment on an annual basis. Concurrently, the economic activity rate⁷⁰ rose quarter on quarter reflecting both labour force increase and continued reduction in working-age population due to negative demographic trends in Bulgaria.

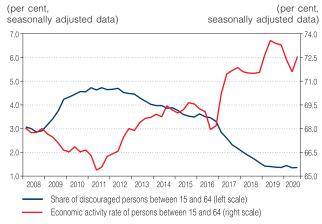
According to the Labour Force Survey, the unemployment rate⁷¹ fell to 5.3 per cent in the third quarter of 2020 from 5.8 per cent in the second quarter. The recorded decrease was due to both higher economic activity in Bulgaria compared to the previous quarter and government's measures to protect jobs⁷².

Administrative statistics data of the Employment Agency, which are published more frequently, also reported a gradual decline in unemployment⁷³ to 6.7 per cent in December 2020, from 8.8 per cent in May, when the highest value of this indicator was registered in 2020.

According to the NSI national account wage bill data, labour income of employed rose on an annual and quarterly basis in the third quarter of 2020. The NSI short-term statistics data on average wage show an annual increase in both the private and public sectors. At the same time, an income increase compared to the previous quarter was mainly attributable to the higher number of employed and the increased number of working hours, while growth in wage⁷⁴ per employee slowed down quarter on quarter in both nominal and real terms.

NSI surveys on pandemic's effects on non-financial corporations' activities in Bulgaria suggest that the number of corporations which launched the measure 'reduction in staff remuneration'

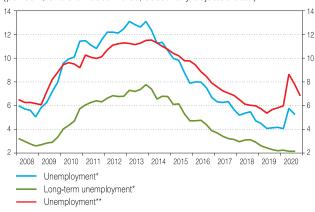
Economic Activity and Share of Discouraged Persons



Sources: NSI Labour Force Survey, BNB calculations.

Unemployment Rate

(per cent, share of labour force; seasonally adjusted data)



- * NSI data.
- ** Employment Agency data.

Sources: NSI Labour Force Survey, the Employment Agency, BNB calculations

 $^{^{70}}$ The economic activity rate is the proportion between economically active persons (labour force) and population of the same age.

⁷¹ Unemployment rate is the proportion between the number of unemployed and the labour force based on Labour Force Survey data. The series is seasonally adjusted by the BNB.

⁷² Including the subsidised employment measure (the so-called 60/40), 'Short-term support for employment in response to the COVID-19 pandemic' measure, 'Employment for you' scheme and 'Save me' measure.

⁷³ The definition of unemployment rate according to Employment Agency data corresponds to that referred to in note 71, but using a constant rate of labour force comprising the number of persons in the respective age group since the last census of the population. Employment Agency data on the unemployment rate are not directly comparable to NSI Labour Force Survey data on the unemployment rate. The series is seasonally adjusted by the BNB.

According to the NSI national account wage bill data.

declined in the third quarter from the second quarter of 2020. Therefore, the weaker growth of wage⁷⁵ per employee is rather due to the registered significant increase on a quarterly basis in the hours worked in sectors with lower than the average wage for the country, which were among those most affected by the containment measures in the second quarter of 2020.

Removal of containment measures in the third quarter of 2020, improved labour market situation and sustained growth of credit activity in Bulgaria supported domestic households' consumption which increased by 5.3 per cent on a quarterly basis in the third quarter of 2020. NSI national accounts data on private consumption in the country showed a persistent trend to a significant resilience of this indicator to the negative shock from the spread of the COVID-19 pandemic and containment measures. Household average consumption for the period January—September 2020 rose by 2.0 per cent in real terms from the same period of 2019.

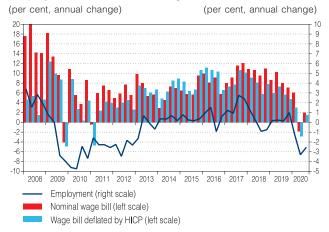
Consumer confidence continued to deteriorate successively in the third and fourth quarters of 2020, according to the Eurostat indicator. Consumers' expectations of their financial position and the overall economic situation over the next twelve months worsened, as did unemployment expectations over the fourth quarter.

Data on retail trade turnover showed an increase of 7.1 per cent quarter on quarter in the third quarter of 2020 against a decline of 17 per cent in the second quarter. An increase was reported in all groups except for retail trade in food, drinks and tobacco. Growth subsequently declined in October and November on a quarterly basis with almost all commodity groups contributing to this effect.

In the third quarter of 2020 households' increased consumption resulted in a decline in savings as a share of income⁷⁶ compared to the previous quarter. Concurrently, the share of savings remained higher than that in the same period of 2019 in line with the heightened uncertainty and worsening consumer confidence.

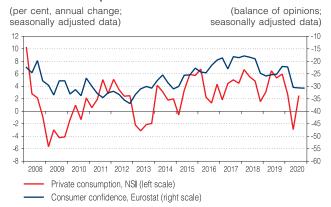
According to data until November, deteriorating consumer sentiment in the fourth guarter of

Employment and Nominal Wage Bill



Sources: the NSI - SNA, BNB calculations.

Private Consumption and Consumer Confidence

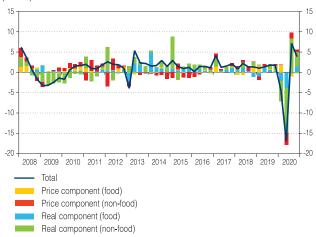


Note: Quarterly data for the consumer confidence represent the average monthly values of Eurostat consumer confidence indicator.

Sources: the NSI, Eurostat, BNB calculations.

Retail Trade Turnover

(per cent, quarter on quarter; seasonally adjusted data at current prices)



Notes: Non-additive data on contributions due to direct seasonal adjustment of the total amount and its components. Data for the fourth quarter of 2020 represent the quarterly change of the average value of the indicator for October and November compared to the third quarter of the year.

Sources: the NSI, BNB calculations

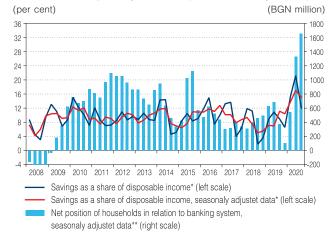
 $^{^{75}\,\}mathrm{According}$ to the NSI national account wage bill data.

 $^{^{76}}$ According to the NSI household budget survey. Income is gross income reduced by taxes and social security contributions.

2020 coupled with slower growth of retail trade turnover suggest weaker private consumption in the last three months of 2020. Employment Agency data show that despite the continuing decline in the unemployment rate over the fourth quarter, the difference between newly registered unemployed in labour offices and hired persons increased significantly as a result of the retightening of containment measures.

Growing uncertainties due to the continuing COVID-19 spread and the anticipated extension of containment measures in the first quarter of 2021 are expected to result in decreased labour supply and weaker household consumption in the first quarter of 2021. Gradual removal of containment measures is expected to improve labour market conditions in the second quarter of 2021 along with an increase in private consumption on both quarterly and annual basis.

Household Propensity to Save (on a Quarterly Basis)



^{*} BNB data.

Sources: NSI Household Budget Survey, the BNB.

Employment and Income Dynamics

		20	016			20	017			20	018			20	019			2020	
	-	II	III	IV	-1	Ш	III	IV	- 1	II	III	IV	- 1	II	III	IV	-	Ш	III
(per cent, quarter on quarter; seasonally a	djusted	data)																	
Employed persons	0.3	0.5	-0.7	0.5	0.3	0.1	1.0	0.4	0.0	-0.2	-0.3	-0.2	0.3	0.0	-0.1	0.4	-0.9	-1.0	-0.5
Nominal wage per employee*	1.4	0.8	1.8	0.8	3.1	2.8	3.0	2.0	2.2	1.8	3.0	2.2	1.1	2.9	-0.5	0.8	0.8	3.5	0.7
Real wage per employee**	1.9	1.3	1.4	0.9	2.5	2.5	2.9	1.1	1.6	1.1	1.9	1.7	0.7	2.0	-1.3	0.7	0.6	3.8	0.3
Wage bill, nominal terms	1.5	1.5	2.0	1.4	3.1	2.5	3.2	2.2	2.8	2.0	2.5	2.6	1.3	3.7	0.2	0.6	0.5	-1.2	1.8
Wage bill, real terms**	2.0	2.1	1.6	1.5	2.5	2.2	3.2	1.3	2.2	1.3	1.5	2.1	1.0	2.7	-0.6	0.5	0.2	-1.0	1.5
(per cent, on corresponding quarter of pre	vious y	ear, no	n-seas	onally	adjuste	ed dat	a)												
Employed persons	0.9	1.5	-1.0	0.6	1.2	0.9	2.7	2.4	1.2	0.2	-0.9	-0.8	0.1	0.2	0.1	1.0	-1.3	-3.3	-2.6
Nominal wage per employee*	8.2	5.8	7.4	3.6	6.9	9.3	11.3	11.7	9.4	9.0	9.5	10.3	8.0	8.5	5.1	5.7	5.9	2.9	6.1
Real wage per employee**	9.4	8.4	8.6	4.4	6.1	7.8	10.4	9.8	7.7	6.5	5.6	7.1	5.4	5.6	2.8	3.3	2.9	1.8	5.5
Wage bill, nominal terms	9.9	8.0	9.0	5.7	8.0	9.1	11.5	12.0	10.9	10.6	9.5	10.9	8.6	10.2	8.0	7.1	6.0	-1.9	2.0
Wage bill, real terms**	11.1	10.6	10.2	6.5	7.2	7.6	10.6	10.1	9.1	8.0	5.7	7.7	6.0	7.3	5.6	4.7	2.9	-2.9	1.4

Employment and Income Dynamics

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Employed persons	2.4	-1.7	-3.9	-2.2	-2.5	-0.4	0.4	0.4	0.5	1.8	-0.1	0.3
Nominal wage per employee*	13.5	10.6	12.0	6.5	8.0	8.3	5.6	5.8	6.2	9.9	9.6	6.8
Real wage per employee**	1.6	8.1	8.7	3.0	5.4	8.0	7.4	6.9	7.6	8.6	6.7	4.2
Wage bill, nominal terms	16.3	8.3	7.1	4.9	6.0	7.1	5.4	6.8	8.1	10.2	10.5	8.4
Wage bill, real terms**	4.0	5.8	4.0	1.4	3.5	6.7	7.2	8.0	9.5	8.9	7.6	5.8

^{*} The wage is calculated according to NSI data (SNA), with social security contributions paid by the employer deducted from the compensation per employee and the difference divided by the number of employees.

Sources: NSI - SNA, BNB calculations, Eurostat.

^{**} NSI data.

^{**} Data deflated by HICP.

Retail Trade Turnover

(per cent, quarter on quarter; seasonally adjusted data at constant prices)

		20	16			20	17			20	18			20	19			20	20	
	1	Ш	Ш	IV	1	Ш	Ш	IV	1	Ш	Ш	IV	1	Ш	Ш	IV	-1	Ш	Ш	IV
Retail trade, excluding motor vehicles and motorcycles incl.	1.6	1.9	1.1	0.8	2.4	0.5	1.4	1.1	0.1	1.5	0.2	1.0	0.8	0.6	1.3	0.9	-5.4	-14.9	7.4	5.6
Food, drinks and tobacco products	1.9	1.9	1.0	0.7	0.2	0.4	1.5	3.2	1.2	2.7	1.0	-3.0	-2.7	3.4	1.7	1.0	-5.5	-10.5	-1.0	1.6
Textile, clothing, footwear and leather Household appliances, furniture and other	2.5	2.9	1.3	-0.2	12.6	-2.7	-5.3	0.5	3.9	6.4	1.8	4.9	-12.6	0.5	7.0	4.7	-20.4	-45.8	72.3	4.1
household goods	2.3	0.3	1.2	2.0	1.0	2.9	1.5	1.2	1.3	3.2	1.5	0.9	2.7	1.4	3.2	4.8	-7.2	-7.9	14.5	5.6
Computer and communication equipment, <i>etc</i> . Pharmaceutical and medical goods, cosmetics		5.3	1.9	7.7	-1.8	0.5	0.5	2.1	6.6	1.9	-1.9	-4.0	-2.5	-1.1	1.3	0.9	-11.9	-15.5	18.1	9.6
and toiletries Unspecialised shops with different kinds of	2.0	3.5	3.6	0.9	0.9	2.4	1.3	1.3	-1.6	2.0	1.6	2.3	-2.3	0.9	1.1	2.6	4.8	-19.8	8.6	15.1
goods	0.0	1.2	2.5	1.4	4.2	2.0	2.1	0.3	4.2	2.9	0.3	0.1	-0.9	-1.0	0.5	1.4	-1.7	-9.4	2.6	10.8
Automobile fuels and lubricants	0.8	1.5	-2.2	-3.0	6.8	-2.3	1.2	-1.1	-7.6	3.5	-0.9	6.0	6.3	-2.3	1.4	-1.1	-11.6	-23.0	19.2	1.5

^{*} Data for the fourth quarter of 2020 are for October and November.

Source: the NSI: short-term business statistics.

Retail Trade Turnover

(per cent, on an annual basis)

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Retail trade, excluding motor vehicles and motorcycles	8.9	-7.7	-8.4	0.6	5.3	3.8	10.2	11.8	6.1	5.4	3.3	3.3
incl.												
Food, drinks and tobacco products	1.6	8.7	2.0	2.5	4.8	1.5	21.9	7.2	7.3	3.7	2.6	3.8
Textile, clothing, footwear and leather	19.7	-9.0	6.9	3.0	7.2	10.9	7.8	4.1	9.7	9.1	8.2	-2.6
Household appliances, furniture and other household goods	6.8	-23.3	-16.5	-4.8	10.0	4.3	1.9	3.0	5.1	7.1	6.5	8.7
Computer and communication equipment, etc.	17.3	-24.7	-1.6	-0.4	-4.8	5.9	-3.8	10.1	2.2	6.8	7.8	-5.8
Pharmaceutical and medical goods, cosmetics and toiletries	21.8	13.6	7.9	7.6	8.9	11.3	12.2	9.7	10.7	6.7	3.8	2.5
Unspecialised shops with different kinds of goods	31.0	59.0	21.1	6.5	5.7	5.6	5.7	4.3	5.0	11.2	7.7	-1.3
Automobile fuels and lubricants	5.3	-8.5	-29.6	-2.7	6.2	-1.6	6.7	34.6	2.5	1.9	-5.3	10.1

Source: the NSI: short-term business statistics.

Fiscal Policy Effects on the Economy

In 2020 fiscal policy had a strong positive effect on the economic activity in terms of transfers to households, government consumption and investment. Discretionary measures undertaken by the government to address COVID-19 spread and mitigate pandemic's negative economic effects contributed to the fiscal policy impact. Concurrently, relatively high precautionary savings in the economy maintained over the year limited government measures' effects on domestic demand dynamics.

In the first eleven months of 2020 the budget balance of the consolidated fiscal programme (CFP) was negative, amounting to BGN 213.7 million. Automatic stabilisers' effects amid the crisis caused by COVID-19 spread and government's discretionary measures were the main factors behind the budget deficit. The balance

on the consolidated fiscal programme declined by BGN 1515 million compared to the first eleven months of the previous year mainly as a result of the increased current non-interest government expenditure against a slight decline in total budget revenue. Based on Ministry of Finance preliminary data, a deficit on the consolidated fiscal programme in the amount of BGN 3.6 billion is expected to be generated by the end of 2020 which is indicative of a significant budget deficit in the last month of the year.

Total budget revenue declined slightly on an annual basis (-0.4 per cent) at the end of November, mainly reflecting the negative contribution of non-tax revenue unlike grant revenue which made a positive contribution. Non-tax revenue continued to gradually recover in the second half of the year (an annual decline of -10.9 per cent in November against -15.5 per cent in August). Grants revenue posted a year-on-year increase of 22.2 per cent in November, mainly driven by redirected funds under EU operational programmes to address the consequences of COVID-19 spread.

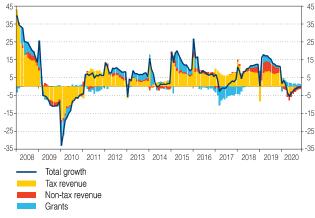
Tax revenue recorded an insignificant increase in the first eleven months of the year (0.2 per cent) compared to the same period of 2019. Receipts from social and health insurance contributions and revenue from personal income tax made a decisive contribution to this growth, while the contribution of indirect taxes and corporate tax revenue was negative.

With regard to direct taxes, revenue from personal income tax rose (4.4 per cent in November), while corporate tax revenue fell in the same period (-7.2 per cent). Revenue from social security contributions increased on an annual basis by 4.1 per cent by November. Government's measures implemented during the year to support employment and income contributed to mitigate the worsened labour market conditions, favouring the dynamics of revenue from social security contributions and personal income tax.

The annual decline in VAT revenue moderated to -2.7 per cent in November against -4.5 per cent in August. VAT receipts from domestic and intra-Community acquisitions (net)⁷⁷ accelerated to 6.8 per cent in November, from 5.8 per cent in August. This dynamics was reported in the con-

Contributions of Major Groups of Revenue to Growth in Total Revenue and Grants, Cumulatively (on an Annual Basis)

(per cent; percentage points)



Sources: the MF. BNB calculations.

⁷⁷ Based on Ministry of Finance Monthly Bulletins on state budget performance and major CFP indicators for 2019 and 2020. BNB calculations.

text of a relatively low level of non-refunded tax credit (BGN 83.1 million⁷⁸) and expected negative budget effects as a result of lowered tax rates on particular goods and services⁷⁹ effective as of early July. Concurrently, the decline in VAT revenue from imports slightly moderated on an annual basis to -18.4 per cent in November against -20.8 per cent in August. Factors that influenced this decline included lower petroleum product prices and the changes made to the method of charging VAT on imports of particular raw materials from third countries⁸⁰. Excise revenue fell by -1.7 per cent in November reflecting the negative contribution of fuel excise revenue. while tobacco excise revenue made a slightly positive contribution.

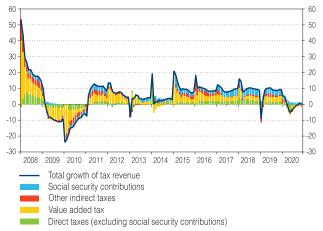
In the first eleven months of 2020 total expenditure on the consolidated fiscal programme recorded annual growth of 3.5 per cent driven mainly by the increased social expenditure and staff costs. Total budget expenditure growth was also underpinned by the positive contribution of subsidy payments unlike capital expenditure which contributed negatively.

At the end of the first eleven months of the year social expenditure rose by 10.9 per cent. In November the growth of expenditure on pensions, household benefits and allowances under the Social Security Code (SSC) amounted to 13.9 per cent, accelerating in the second half of the year. The main factors behind the upward dynamics of social payments were the indexation of pensions by 6.7 per cent as of 1 July, the supplement payments to pensions (amounting to BGN 50 for each pensioner per month) approved by the government at the end of July and the increased costs of unemployment benefits due to the increase in the minimum amount of unemployment benefit from BGN 9 to BGN 12 per day along with the extended duration of unemployment benefit receipt from four to seven months, effec-

 $^{78}\,\mathrm{Based}$ on MF Monthly Bulletin on Budget Performance and Major Indicators under the Consolidated Fiscal Programme for November 2020.

Contributions of Major Tax Groups to Tax Revenue Growth, Cumulatively (on an Annual Basis)

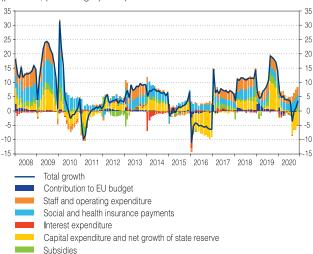
(per cent; percentage points)



Sources: the MF, BNB calculations.

Contributions of Major Groups of Expenditure to Total Expenditure Growth, Cumulatively (on an Annual Basis)

(per cent; percentage points)



Notes: In Consolidated Fiscal Programme reports of January 2016, staff costs include wage, insurance and other remunerations, while in the reports for past periods. the latter were included in operating expenditure. To prevent data inconsistencies prior to and after January 2016 resulting from the methodological change, staff and operating expenditure are presented aggregately in the chart and separately in the table 'Key Budget Indicators Performance for 2019 and 2020'.

Sources: the MF, BNB calculations.

⁷⁹ With effect from 1 July 2020, a reduced VAT rate of 9 per cent was levied on books, restaurants and catering services, baby food and diapers. The scope of goods with reduced tax rate was additionally expanded from 1 August 2020, with this rate being applied on sales of tourist companies, fitness centres and beer and wine consumed in restaurants. The 9 per cent rate is temporary and will be valid until 31 December 2021.

⁸⁰ Based on Ministry of Finance Monthly Bulletin on state budget performance and major consolidated fiscal programme indicators for November 2020, the effect of applying this rate in January–November 2020 resulted in VAT not charged on imports worth BGN 1015.6 million.

tive as of 1 October. Increased social payments coupled with higher wage costs of the public sector and the effects of government subsidised employment programmes supported significantly disposable income of households over the year.

Staff costs posted annual growth of 12.9 per cent in November, largely driven by the wage rises in the public sector in the first half of the year and the additional 30 per cent wage increase of those working at the front line in the fight against the spread of COVID-19, announced at the end of July⁸¹. Expenditure on subsidies rose by 16.7 per cent on an annual basis in November mainly as a result of the subsidised employment payments (the so-called 60/40 measure⁸²). In November health insurance payments rose by 6.8 per cent on an annual basis⁸³, with these costs gradually increasing throughout the year. Operating expenditure fell by 3.3 per cent year on year in the period from January to November and lower payments under this item probably continued to reflect additional government expenditure for overcoming the consequences of the spread of COVID-19, which was offset by savings under lower priority expenditure items.

The additional public spending incurred as a result of the pandemic, including higher expenditure on healthcare and healthcare staff, contributed to the accelerated increase in government consumption compared to 2019. According to national account data, in the first nine months of 2020 government consumption rose by 5.3 per cent on an annual basis in real terms (against annual growth of 1.1 per cent for the same period of 2019).

In the third quarter of 2020 government consumption grew 2.2 per cent on a quarterly basis in real terms.

Between January and November 2020 capital expenditure under EU programmes increased by 1.5 per cent on an annual basis, whereas national budget capital expenditure posted a fall

⁸¹ See the Council of Ministers' press release of 27 July on social and economic government measures in response to the COVID-19 pandemic.

⁸² Based on the National Insurance Institute monthly reporting information on expenses made on the containment measures on COVID-19 and its treatment, business-support measures and social measures, compensations paid under the 60/40 measure totalled BGN 554.1 million at the end of November (BGN 214.7 million by the end of August).

⁸³ Based on MF Monthly Bulletin on budget performance and major indicators under the consolidated fiscal programme.

of 50.6 per cent. Lower national budget capital expenditure reflected the base effect of the payment made in August 2019 for acquiring new fighter aircraft. If this one-off effect is excluded, the annual rate of change in national capital expenditure would be positive at 10.7 per cent on an annual basis by end-November. Preliminary NSI data show that public investment of the government sector grew by 28.1 per cent on an annual basis for the first nine months of 2020, having a strong positive effect on Bulgaria's economic activity.

In the first and second quarters of 2021 fiscal policy is expected to retain its strong positive influence on the economic activity in terms of transfers to households, government consumption and public investment.

The public sector wage expenditure growth projected in the 2021 budget, minimum pension increases, supplement payments of BGN 50 for pensioners over the first three months of 2021, higher social payments and 60/40 subsidised employment measure, as well as the increased amount and extended period for receiving unemployment benefits will provide significant support to disposable income of households. The socialled 'Save me' measure aimed at supporting employed in temporarily closed economic areas due to anti-epidemic measures imposed in late 2020 will have an additional favourable effect on households' disposable income over the first quarter of the year⁸⁴.

Business-support measures, such as the 'Working capital support for SMEs affected by temporary anti-epidemic measures' programme, are also expected to affect positively the economic activity in Bulgaria.

Higher expenditure on healthcare payments with the aim of enhancing the health system stability projected in the 2021 budget coupled with increased wage costs for the public sector are expected to have a positive effect on government consumption dynamics over the projection horizon⁸⁵.

⁸⁴ The measure is valid for the 30 November 2020 to 31 March 2021 period. Employees are entitled to compensations of 75 per cent of the social security contributions for October 2020 for up to 60 days within the calendar year during which they were on unpaid leave due to temporary containment measures introduced by the government (the Decree No 418 of 30 December 2020 of the Council of Ministers).

⁸⁵ For further information, see the Main Parameters of the 2021–2023 Budgetary Framework box.

Key Budget Indicators Performance for 2019 and 2020

Consolidated Fiscal Programme		019 November ¹		020 November ¹
0011001100000 1 10000 1 10000	BGN million	per cent ²	BGN million	per cent ²
Total revenue and grants	39,854	11.3	39,699	-0.4
Tax revenue	31,988	9.3	32,037	0.2
incl. social security and health insurance contributions	9,560	11.3	9,955	4.1
Non-tax revenue	5,899	22.1	5,258	-10.9
Grants	1,966	15.5	2,404	22.2
Total expenditure (incl. the contribution to EU budget)	38,553	17.1	39,913	3.5
Staff	8,957	14.0	10,116	12.9
Operating expenditure	3,682	4.4	3,559	-3.3
nterest	607	-7.0	583	-4.0
Social expenditure, scholarships	15,551	6.3	17,253	10.9
Subsidies	3,064	32.2	3,575	16.7
Current and capital transfers to abroad	34	-32.0	39	15.0
Capital expenditure and government reserve growth	5,522	91.7	3,602	-34.8
incl. capital expenditure	5,495	91.8	3,601	-34.5
Contribution to the general budget of the European Union	1,136	14.2	1,185	4.3
	BGN million	difference ³	BGN million	difference ³

Budget balance, on a cash basis	1 301	-1 596	-214	-1 515
Tax revenue under the state budget	20 January – 1		202 January – N	
Ç	BGN million	per cent ²	BGN million	per cent ²
Tax revenue	21,472	8.6	21,102	-1.7
Corporate tax	1,949	4.1	1,809	-7.2
Personal income tax	3,671	9.3	3,832	4.4
Value added tax	10,356	11.3	10,072	-2.7
Excise duties	5,088	5.0	5,003	-1.7
Customs duties and taxes	213	0.4	192	-10.0
Insurance premia tax	45	19.1	46	3.8

(BGN million)

(BGN million)

-1.9

147

Note: The difference between the sum of individual components and total sum is due to rounding.

Other taxes

Given the last phase of the 2014-2020 programme period, the implementation of large infrastructure projects financed by national and EU funds is expected to continue⁸⁶. These projects would contribute to growth in public investment, while the effects of newly approved investment projects, as part of government anticrisis measures, are likely to materialise with a certain delay.

Based on monthly reports on cash-based performance of the Consolidated Fiscal Programme.

² The annual rate of change on the same period of previous year.

³ The change of the budget balance on the same period of previous year.

⁴ Based on monthly reports on cash-based implementation of the state budget.

⁸⁶ The BNB macroeconomic forecast does not include assessments of the potential effect on public investment and government consumption of funds, which will be provided to Bulgaria under the multiannual financial framework for 2021-2027 and the recovery effort known as the Next Generation EU due to the lack of sufficient detailed information by the time of preparing the forecast. The forecast includes only an assumption of the funds expected from the REACT-EU instrument (BGN 820 million in 2021).

Main Parameters of the 2021–2023 Budgetary Framework

The updated medium-term budget forecast of the government for the 2021–2023 period⁴⁰, which complies with 2021 budget and tax laws adopted by the National Assembly, provides for a budget deficit on the consolidated fiscal programme (CFP) and for the general government sector (ESA 2010) over the whole projection horizon. The estimates in the 2021 updated medium-term budget forecast reflect temporary discretionary measures planned by the government to address the negative fallouts of the COVID-19 pandemic and to mitigate the effects on the health system, which are estimated at 2.5 per cent of projected GDP for the year. The cash deficit in 2021 is expected to be BGN 4.9 billion (-3.9 per cent of GDP), in 2022 the deficit is projected to decrease to BGN 2.7 billion (-2.0 per cent of GDP), and in 2023 to be BGN 2.5 billion (-1.8 per cent of GDP). The budget balance of the general government sector (ESA 2010) used for the purposes of the excessive deficit and debt procedure is expected to be negative at -5.0 per cent of the projected GDP in 2021 and to improve to a deficit of -1.9 per cent of GDP, reflecting mainly the expected delivery of military equipment for modernisation of the army. Primary deficits planed for the entire forecast horizon will weigh on the government debt and the general government consolidated debt growth both in nominal value and as a percentage of GDP.

According to the updated medium-term budget forecast, the structural deficit of the general government sector will account for -2.4 per cent of GDP in 2021 and it is anticipated to decrease to -1.7 per cent of GDP and -1.6 per cent of GDP in 2022 and 2023. The higher structural budget deficit in 2021 compared with the medium-term budget target of -1.0 per cent of GDP is in line with the general escape clause of the Stability and Growth Pact activated by the European Commission and remaining in force in 2021. This clause allows Member States to adopt fiscal stimulus measures in the emergency situation caused by the pandemic outbreak through a temporary departure from their medium-term budgetary objective. According to EC guidelines, fiscal measures to effectively address the COVID-19 impact at national level should be tailored to the specific situation in the country, remain temporary and be assessed regularly in terms of their effectiveness and adequacy.

In 2021 the updated medium-term budget forecast provides for a 10.1 per cent increase in total CFP revenue compared to its expected performance for 2020⁴¹, with tax and social security revenue contributing most (4.9 percentage points), followed by grants (2.8 percentage points) and non-tax income (2.4 percentage points). Projected growth in tax and social security revenue (6.0 per cent) reflects mainly the MF forecast of an accelerating year-on-year increase in consumption and wages and measures to improve tax collection. Temporary discretionary measures on the revenue side of the CFP, initiated to cushion the negative effects of the pandemic on the economy, are estimated by the MF at BGN 380.6 million (0.3 per cent of projected GDP). These measures include VAT cuts from 20 to 9 per cent for certain goods and services, VAT and tariff exemption on some imported medical products⁴² and higher tax reduction for children on generated 2021 income. Early 2021 increases in both minimum wage and minimum social security income of self-employed persons are expected to have a low positive budget effect with regard to tax insurance income. The increase in grant revenue (by 44.7 per cent *vis-à-vis* expected performance for 2020) is projected to reflect largely the Recovery and Resilience Facility funds which have been included by the government in the 2021 budget forecast. A robust rise is also envisaged in non-tax revenue (by 18.7 per cent against the expected 2020 performance) due mainly to a transfer of proceeds from Sofia airport concession from 2020 to 2021 budget.

The updated medium-term forecast sets out a 9.0 per cent increase in total CFP expenditure for 2021 *vis-à-vis* expected 2020 implementation, reflecting the effect of planned measures in response to the COVID-19 crisis and expenses on other government's priority policies across various areas. Temporary discretionary expenditure measures for 2021, intended to tackle the aftermath of COVID-19, are estimated by the MF at BGN 2.8 billion (2.2 per cent of projected GDP), with the bulk of them related to enhanced transfers and grants to households, and planned subsidised employment payments under the so-called 60/40 measure. An important strand in government's discretionary policy in response to the pandemic is the health

⁴⁰ The updated medium-term budget forecast for the 2021–2023 period was drawn up in October 2020 as reasons to the 2021 draft State Budget Law and adopted by Decision No 778 of the Council of Ministers of 29 October 2020. To ensure compliance with the parameters of 2021 final budget and tax laws adopted by the National Assembly, amendments to the updated medium-term budget forecast were made and approved by Decision No 963 of the Council of Ministers of 23 December 2020. This box discusses the updated medium-term budget forecast parameters approved on 23 December 2020.

⁴¹ The October 2020 budget revenue estimate for 2020 under the Consolidated Fiscal Programme remained unchanged in the updated medium-term budget forecast approved on 23 December 2020.

⁴² VAT and tariff exemption on some imported medical products which are needed to overcome the effects of the COVID-19 pandemic is in force in the period up to 30 April 2021.

system strengthening for which additional funds are earmarked mainly in terms of larger direct payments to the National Health Insurance Fund and higher remunerations of front-line healthcare workers. The income policy remains a priority of the government in 2021, involving additional funds for planned wage increases in education⁴³, for a 15 per cent rise of Ministry of Interior employees' wages and 10 per cent income growth in all other budget sectors. In addition, 2021 budgetary estimates include all-year funds to cover the 30 per cent increase since 1 August 2020 in staff costs of bodies and entities entrusted with activities to overcome the pandemic and its implications. Broken by expenditure items, projected growth in social and health insurance payments (by 11.4 per cent or BGN 2.2 billion against expected 2020 performance) will have the strongest contribution to a 4.6 percentage point increase in total budget expenditure for 2021. This growth will be driven by both greater support to households through increased pensions (supplements, raised minimum and maximum pension amounts and indexation) and higher benefits and allowances along with a projected stronger rise in health insurance payments (by 17.2 per cent). Staff costs (2.7 percentage points), maintenance expenses (0.9 percentage points) and capital expenditure (0.7 percentage points) will make a comparatively lower contribution to total CFP expenditure growth.

In case of significant deterioration in the epidemic situation resulting from the pandemic development in Bulgaria during 2021, the updated medium-term budget forecast foresees financial resources to meet eventual *force majeure* expenditure throughout the year.

Planned fiscal consolidation in 2022 to a deficit of -2.0 per cent of projected GDP (-3.9 per cent of GDP in 2021) provides for limitation of total budget expenditure as a share of GDP mainly in terms of current expenditure and, to a lesser extent, capital expenditure. Lifting the temporary COVID-19 measures set out for the current year will be decisive for reducing current expenditure by 2.2 percentage points compared to the projected level for 2021. Concurrently, total budget revenue as a share of GDP is expected to fall mainly as a result of the one-off concession receipts projected in 2021 and the lower receipts from grants in 2022 compared to 2021. In 2023 the budget deficit on the consolidated fiscal programme is projected to decline slightly compared to 2022, accounting for -1.8 per cent of GDP.

Bulgaria's debt burden is projected to increase both in nominal terms and as a percentage of GDP under the updated medium-term budgetary forecast. Government debt to GDP ratio is expected to increase from 23.5 per cent at the end of 2020 to 28.2 per cent at the end of 2023, and so is the general government consolidated debt to GDP ratio from 25.3 per cent to 29.4 per cent of the GDP over the same period. The main objectives of the government debt management policy include provision of funds to refinance the outstanding debt, financing of planned budget deficits and ensuring stability of the fiscal reserve as a liquidity buffer. In line with the MF issuing policy and the debt limits set out in the 2021 State Budget Law, the maximum amount of the new government debt that can be assumed over the year is BGN 4.5 billion.

Risks to the achievement of the budgetary targets under the updated medium-term budget forecast for the 2021-2023 period could arise in the event of a failure to contain the spread of COVID-19 globally and in the country. If the epidemiological situation deteriorates, a less favourable macroeconomic scenario compared to that in the MF forecast could materialise, which would hinder the projected tax revenue performance. This could give rise to risks to the achievement of budgetary targets over the forecast horizon and lead to a sharper rise in country's debt burden. Additional risks to the budget forecast arise from the significant increase in permanent budget expenditure (e.g. wages, pensions) under the updated mediumterm budget forecast, which are hard to reverse in case of a less favourable development of the economic activity over the medium term and would limit the opportunities for budgetary consolidation. A specific risk to the 2021 budget forecast is associated with the projected receipts related to the initial concession payment under the Sofia airport agreement, which are unlikely to be realised given the expected strong negative impact of the COVID-19 pandemic on the air transport and aviation industry. Another specific risk to the 2021 budget forecast arises from possible slower than expected absorption of grants under the EU's Recovery and Resilience Facility. Finally, as specified in the updated medium-term budget forecast, the EC plans to review the fiscal developments in 2020 and 2021 forecasts and to assess which of the COVID-19 measures presented by the countries as temporary are compliant with the definitions of expenses related to extraordinary circumstances, and to make an assessment of the adjusted balance for the purposes of the excessive deficit procedure. Supplement payments to pensions and expenditure related to the increase in the minimum old-age pension amount as projected in the 2021 budgetary framework are an example of expenses, which are unlikely to be approved by the EC as extraordinary and could worsen the assessment of the adjusted general government balance.

 $^{^{43}\,\}mathrm{ln}$ 2021 pedagogical staff remunerations are projected to double as planned compared to 2017.

4. Inflation

In November annual inflation slowed down significantly compared with end-2019, reaching 0.3 per cent. All major commodity and services sub-groups contributed to the lower inflation, with the slowdown reflecting mostly the strong price fall in energy products as a result of the downward dynamics of international oil prices on an annual basis. Core inflation also slowed down from the end of the previous year due to negative effects of containment measures on domestic demand. The lower inflation of unprocessed food was mainly driven by the meat and meat products sub-group due to the gradually exhausting effect of the sharp price hike in 2019 after the African swine fever spread worldwide and in Bulgaria.

In the first and second quarters of 2021 inflation is expected to gradually accelerate, reflecting largely the expectations of upward movements in international prices of food and petroleum products over this period compared with the end of 2020. Core inflation is anticipated to remain close to that at the end of 2020 due mostly to the assumptions of extending the anti-epidemic measures in Bulgaria until the end of the first quarter of 2021, which will continue to limit final consumer expenditure of households, in particular in services.

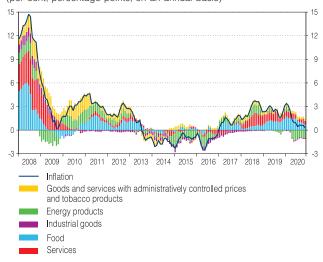
In November 2020 annual inflation slowed down significantly from the end of 2019 to reach 0.3 per cent⁹¹ (3.1 per cent in December 2019). In November annual inflation in the main HICP groups either decelerated or turned negative, largely driven by the downward dynamics in international oil prices in euro and weaker domestic demand as a result of the spread of COVID-19 and the containment measures introduced globally.

Energy products (excluding administratively controlled prices) had the major negative contribution to the November inflation. This reflected mainly the 17.3 per cent decline in transport fuel prices as of November in line with the fall in oil prices in euro by 35.7 per cent on an annual basis amid weaker global demand for oil. The group of food and core HICP components continued to have the largest positive contribution to November inflation although the inflation in this group also decelerated from the end of 2019. This was due to negative effects of containment measures on domestic demand, as well as the exhausted pro-inflationary effect of reduced supply of some unprocessed food in 2019. Slight slowdown in annual inflation by November was also observed in goods and services with administratively controlled prices and tobacco products, reflecting mostly the heating price fall in the context of decreasing import prices of natural gas.

⁹¹ The analysis in this Section employs NSI data on HICP.

Inflation and Contribution of Major Commodity and Services Groups to It

(per cent; percentage points; on an annual basis)



Notes: Data for 2020 cover the period to November inclusive. This structure corresponds to the Eurostat classification; tobacco products and goods and services with administratively controlled prices are presented separately. The price index of goods and services with administratively controlled prices is calculated through the elementary aggregates level in the consumer basket.

Sources: the NSI, BNB calculations.

65 Inflation

In November food inflation moderated to 2.7 per cent (6.2 per cent by end-2019), reflecting a shrinking positive contribution of both unprocessed and processed food. Inflation deceleration in the group of unprocessed food to 1.9 per cent in November 2020 (11.8 per cent in December 2019) was attributable mainly to the meat and meat products sub-group due to the gradual exhaustion of the pro-inflationary effect of reduced supply of these products reflecting African swine fever spread in 2019 worldwide and in Bulgaria. In November fruit and vegetables had a low positive contribution to overall inflation, consistent with the increased producer prices of these products⁹² in the second and third quarters of 2020 amid weaker domestic production⁹³. Concurrently, the annual decline in the import deflator for these products and in production costs reported over the third quarter due to fuel price falls was a factor dampening price rises of fruit and vegetables⁹⁴.

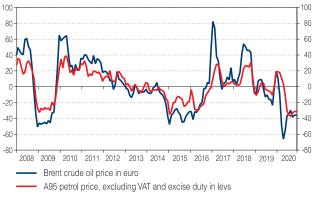
Processed food inflation was 3.2 per cent in November, from 3.4 per cent by end-2019. The bread and cereals group contributed most to its price growth, which was in line with poorer domestic harvest and higher producer prices. Another factor with a pro-inflationary effect was the rise in international wheat prices in euro, reflecting robust global demand for this commodity and concerns about the supplies by large producer countries⁹⁵. Between January and November 2020 milk, dairy products and eggs, animal and vegetable oil and fats, and sugar and confectionery had relatively stable positive contribution to overall inflation (totalling around 0.3 percentage points) probably due to the upward dynamics of these products' imported prices.

Core inflation (including services and non-food prices) slowed down to 0.8 per cent on an annual basis in November (1.8 per cent in December 2019) reflecting deflation in industrial goods, while services group's positive contribution shrinked.

⁹² NSI data on producer prices and price indices of agricultural production for the second quarter of 2020.

Annual Rate of Change in Brent Crude Oil and A95 Petrol Prices

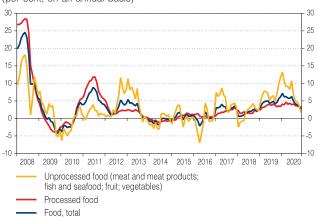
(per cent, on an annual basis)



Sources: the ECB, the NSI, BNB calculations.

Rate of Change of Food Price Index

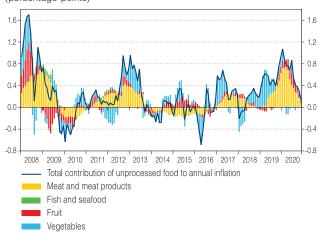
(per cent, on an annual basis)



Sources: the NSI, BNB calculations.

Contribution of Major Sub-groups of Unprocessed Food to Overall Inflation

(percentage points)



Sources: the NSI, BNB calculations.

⁹³ NSI preliminary data derived from agricultural accounts are used.

⁹⁴ NSI data on price indices of goods and services intended for current consumption in agriculture are used.

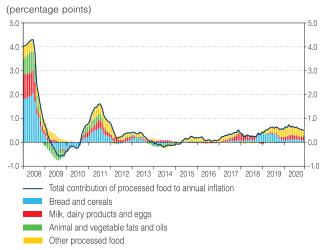
⁹⁵ The analysis employs Commodity Exchange and Wholesale Markets State Commission Monthly and Weekly Bulletin data.

Inflation in the group of services decelerated significantly from end-2019 to reach 1.3 per cent in November (from 4.4 per cent in December 2019). The slowdown was mainly due to the negative contribution of accommodation services and the sharp decline in the positive contribution of package holidays as a result of subdued demand for these services in the context of the pandemic. Despite the moderated catering inflation observed in November 2020, this group contributed most significantly to price rises in services. The temporarily reduced VAT rate of 9 per cent levied on restaurants and catering services (in effect from July 2020 until the end of 2020) was partially compensated by the growing prices without VAT⁹⁶. Financial services and air transport were other groups with a comparatively high contribution to the inflation in November, with price pressures of the air services probably reflecting increased costs and decreased revenue of airline companies due to the decline in travel as a result of the measures imposed to curb the global spread of COVID-19.

Following the 2019 reversal in non-energy industrial goods deflation observed since 2010, in Bulgaria this group's prices have started to decline again on an annual basis since the beginning of 2020. Weaker demand for goods in the group stemming from the uncertain economic environment, changes in consumer expenditure structure97 and limited business activities of some of the trading establishments in the periods of tightening of containment measures in Bulgaria contributed to the price fall in the group, with deflation reaching in November -1.1 per cent (compared to 0.5 per cent inflation in December 2019). Automobiles and clothing and footwear played a key role in the negative contribution of the group to the core inflation, with price declines expected to continue in the following months as a result of the negative

 96 According to Eurostat data, inflation in catering came to 4.2 per cent in November 2020, while the annual growth rate of the HICP at constant tax rates accounted for 12.0 per cent.

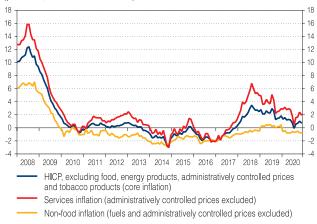
Contribution of Major Sub-groups of Processed Food to Overall Inflation



Sources: the NSI, BNB calculations.

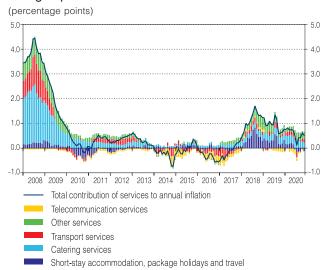
Core Inflation

(per cent, on an annual basis)



Sources: the NSI, BNB calculations.

Contribution of Inflation in Services and Major Services Sub-groups to Overall Inflation



Sources: the NSI, BNB calculations.

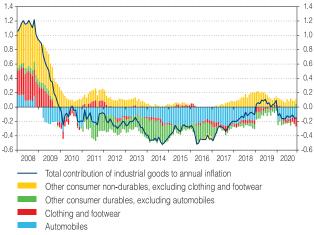
67

Inflation

⁹⁷ According to the NSI Household Budget Survey for the first nine months of 2020, nominal monetary consumption expenditure reported a decline of -0.8 per cent average per households, which was accompanied by changes in expenditure structure. In the first nine months of 2020 households in Bulgaria made relatively lower expenditure on clothing and footwear, transport, personal and cultural recreation services and education, and higher expenditure on food, water, energy and transport, home furnishing and maintenance, communications, and healthcare.

Contribution of Inflation in Non-food Goods (Excluding Energy Products) and Major Services Sub-groups to Overall Inflation





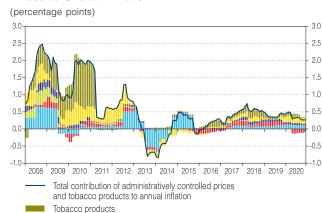
Sources: the NSI, BNB calculations

effects of extended anti-epidemic measures in Bulgaria.

Inflation in goods and services with administratively controlled prices and tobacco products reached 1.2 per cent in November, from 2.0 per cent by end-2019. The inflation slowdown in this group vis-à-vis December 2019 was largely driven by a natural gas price decline by 37.1 per cent for November compared to the fourth guarter of 2019 and a heating price decrease⁹⁸ by 12.7 per cent on average as of July for a period of one year, confirmed by the Energy and Water Regulatory Commission (EWRC). Concurrently, the increase in the prices of electricity⁹⁹ by 2.8 per cent on average since July for a period of one year contributed positively to the inflation. Other groups of goods and services with administratively controlled prices, which also contributed positively to the inflation, were tobacco products, medicines and pharmaceuticals 100 followed by educational services.

The slowdown in overall inflation which started in early 2020 was consistent with the downward dynamics in producer prices. In November the

Contribution of Tobacco Products and Major Sub-groups of Goods with Administratively Controlled Prices to Overall Inflation



Sources: the NSI, BNB calculations.

Urban public transport

Heating

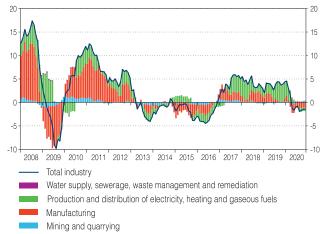
Electricity

Rate of Change in PPI on the Domestic Market and Contributions by Major Sub-sectors

(per cent; percentage points; on an annual basis)

Water supply and sewarage services

Other administratively controlled prices



Source: the NSI.

⁹⁸ For further information, see https://www.dker.bg/news/511/65/kevr-utvrdi-okonchatelnite-tseni-ot-1-yuli-na-elektricheskata-i-na-toplinnata-energiya-i-na-energiyata-proizvedena-ot-toplotsentrali-po-visokoefektiven-kombiniran-sposob.html.

⁹⁹ See footnote 98.

¹⁰⁰ From 6 August 2019, amendments to the Ordinance on the Terms, Rules and Procedures for Regulation and Registration of Prices of Medicinal Products entered into force. For further information, see https://www.ncpr.bg/images/Naredbi/2019/HΥΠΡΡΡЦΡΠ_6_08_2019.pdf.

total producer price index (PPI) decreased by 1.5 per cent, compared to an increase of 4.5 per cent in December 2019. By economic sector, this price drop reflected primarily the negative contribution of manufacturing as a result of the downward price dynamics in the sub-sector of production of coke and refined petroleum products. It led to lower consumer prices of transport fuels on an annual basis. In line with this dynamics, the end-use classification shows a negative contribution of energy products to the annual change in producer prices.

According to the NSI business survey, in December 2020 the majority of managers in retail trade (91.4 per cent), industry (91.3 per cent) and services (90.2 per cent) expect stagnation in selling prices over the coming three months, with balance of opinions in all sectors decreasing from the end of 2019. In the sectors of trade and services, which are the closest to end users in the supply chain, most managers expecting changes in selling prices foresee price decreases. These expectations were among the factors on the basis of which the core inflation in the first half of the year is projected to remain around its level of end-2020.

Despite the deterioration of the economic situation in Bulgaria caused by COVID-19, in the third quarter of 2020 the House Price Index (HPI) increased by 4.8 per cent on an annual basis (against 6.2 per cent by end-2019). House price growth was reported in both new and existing housing. Price hikes are likely to be driven by the growth of credit activity in the context of decreasing annual percentage rate of charge (APRC) on new housing loans to 3.3 per cent in the third quarter (against 3.5 per cent by end-2019) and almost unchanged credit standards compared with the previous quarter. Other potential factors relate to earlier price negotiations on concluded transactions and the lack of alternatives for investing accumulated savings. In the third guarter of 2020 country-wide house prices remained 10.1 per cent lower than the maximum values recorded in the third quarter of 2008. Estimates obtained on the basis of a BNB macroeconomic model¹⁰¹ suggest that as of the third quarter of 2020 the deviation of current

Rate of Change in Producer Prices on the Domestic Market by Major Industrial Groupings

(per cent; on an annual basis)

20

20

10

-10

-20

2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020

Intermediate consumption goods

Consumer non-durables

Consumer durablesEnergy productsInvestment products

Source: the NSI.

Expectations of Selling Prices in Industry, Retail Trade and Services in the Next Three Months

(balance of opinions, per cent, 6-month moving average)



Source: the NSI.

Rate of Change of House Price Index

(per cent; on an annual basis)



Source: the NSI.

Inflation

¹⁰¹ For more information on this model, see the research topic on *Dynamics of house prices in Bulgaria between 2000 and 2016*, Economic Review, 1/2017.

Key Indicators of the Housing Market in Bulgaria

(per cent; year-on-year change)

Indicators	2016	2017	2018	2019	2019		2020	
					IV	- 1	II	III
Price developments								
House price index, total	7.0	8.7	6.6	6.0	6.2	4.7	2.9	4.8
New dwellings	6.4	6.7	5.7	8.5	8.7	2.0	0.8	3.5
Existing dwellings	7.3	9.7	7.0	4.8	4.9	6.3	4.2	5.6
Inflation (HICP)	-1.3	1.2	2.6	2.5	2.3	3.0	1.1	0.6
House rentals, paid by tenants (HICP)	0.6	1.0	1.9	3.3	3.0	3.2	2.4	2.3
Lending								
New housing loans	7.4	32.7	14.9	12.4	18.7	25.7	20.0	15.5
Annual percentage rate of charge on new housing loans (per cent, at the end of the period)	5.4	4.4	3.9	3.5	3.5	3.4	3.3	3.3
Housing loans balances	-15.3	12.6	18.4	-1.4	14.5	14.8	13.3	12.3
Construction and investment								
Permits issued for the construction of new residential buildings (square meters)	4.8	32.5	39.0	-7.9	-38.5	-21.1	-23.6	-13.2
Value added in construction (at average annual prices for 2015)	-7.3	4.5	1.4	3.6	1.2	1.9	-7.4	0.7
Constriction production index, building construction	-16.1	10.9	2.6	8.4	5.7	-6.1	-12.6	-6.9
Fixed investment; residential buildings	-4.0	-3.3	-10.3	102.1	10.2	-11.5	-13.1	-2.8
Construction cost index for new buildings	0.8	2.5	2.9	5.1	5.8	3.3	1.8	1.0

Note: Values indicating the amount of the APRC on housing loans to households are averages weighted by the relevant volumes of new loans for a 12-month period.

Sources: the NSI, the BNB, Eurostat.

residential property prices in Bulgaria from their long-term equilibrium level, which depends on fundamental factors, such as the income level, interest rates on housing loans and FDI inflows, was positive at 6.0 per cent. Over the third quarter of 2020 the price-to-rent ratio remained at a level higher than its long-term (historical) value. In the first half of 2021 the HPI is expected to grow further on an annual basis, but at a slower pace due to worsening housing affordability of households as a result of subdued dynamics of some households' income. The NSI Consumer Survey of October 2020 indicated a decline in households' propensity to purchase homes in the next 12 months in line with the worsening household expectations for labour market and their financial position. These developments will facilitate the convergence of actual and equilibrium house prices in the first half of 2021. The lack of alternatives for investing accumulated savings and low interest rates will continue to be a precondition for growing house prices over the first half of 2021. House price dynamics in the next months will be also influenced by the behaviour of firms in the construction sector. Over the third guarter of 2020 the construction production index fell by 12.6 per cent on an annual basis (against

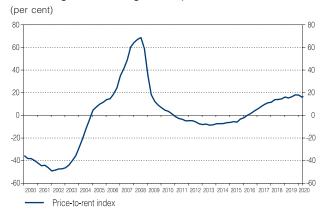
Sources: the NSI, BNB calculations.

growth of 5.7 per cent by end-2019). Concurrently, residential building permits (measured by building floor area) decreased by 13.2 per cent on an annual basis, indicating lower supply of new dwellings.

We project acceleration of the overall inflation in the first and second quarters of 2021 from the end of 2020, reflecting largely the expected increase in international oil and food prices in euro. Core inflation is projected to remain at its level of end-2020, with its dynamics over the first months of 2021 being further limited by the extended containment measures in Bulgaria. The increase in some administratively controlled prices in the second half of 2020 is expected to result in retention of the positive contribution of this group to overall inflation in the second and third quarters of 2021.

Risks to the inflation forecast are assessed as largely oriented towards a lower growth rate of prices. Lower than projected inflation could be seen in energy products and core HICP components in case of longer than expected extension of anti-epidemic measures in Bulgaria and globally.

Price-to-Rent Ratio (Percentage Deviation from Long-term Average Value)



Sources: the NSI, BNB calculations.

Rates of Change in Commodities and Services Prices and Their Contribution to Inflation

		,					
	Inflation accumulated as of November 2019 (December 2018 = 100)		Inflation accumulated as of November 2020 (December 2019 = 100)		Annual rate of inflation as of November 2020 (December 2019 = 100)		
Inflation (per cent)	2.3		-C).5	0.3		
	inflation rate by group (per cent)	contribution (percentage points)	inflation rate by group (per cent)	contribution (percentage points)	inflation rate by group (per cent)	contribution (percentage points)	
Food	5.6	1.3	2.2	0.5	2.7	0.7	
Processed food	3.4	0.5	3.2	0.5	3.2	0.5	
Unprocessed food	10.0	0.8	0.3	0.0	1.9	0.2	
Services	0.4	0.1	-0.5	-0.1	2.0	0.5	
Catering	5.3	0.3	3.8	0.2	4.2	0.2	
Transport services	-8.3	-0.3	-5.6	-0.2	5.1	0.1	
Telecommunication services	-3.3	-0.2	-0.5	0.0	-0.6	0.0	
Other services	1.9	0.2	-1.2	-0.2	1.3	0.2	
Energy products	3.8	0.3	-13.7	-1.0	-13.5	-1.0	
Transport fuels	5.0	0.3	-17.9	-1.0	-17.3	-1.0	
Industrial goods	0.5	0.1	-0.7	-0.2	-0.8	-0.2	
Goods and services with administratively controlled prices*	2.0	0.3	1.5	0.3	1.5	0.3	
Tobacco products	2.1	0.1	0.2	0.0	0.3	0.0	

^{*} The index of goods and services with administratively controlled prices is calculated through weighting the relevant elementary aggregates in the consumer basket.

Sources: the NSI, BNB calculations.

71 Inflation

ISSN 2367-4962

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