National Bank of the Republic of North Macedonia



Quarterly Report August 2020

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Introduction

After the monetary policy easing performed on two occasions during the first quarter, in the second quarter of 2020 the National Bank additionally reduced the key interest rate by 0.25 percentage points, bringing it to the historically lowest level of 1.5%. In addition, during the second quarter, the supply of CB bills was reduced on two occasions, by a total of Denar 15 billion, in order to enable the banking system to provide support to the Macedonian economy by maintaining credit flows and the credit cycle. These steps are complementary to the other measures taken, i.e. regulatory changes that provide greater flexibility and incentives for banks for the lending process, as well as changes in the reserve requirement that release additional liquidity and support the lending to the most affected sectors in the economy. Given the solid level of foreign reserves and the absence of inflationary pressures, this monetary setup was assessed as appropriate to the current economic and financial developments, which are under strong impact of the COVID-19 pandemic and restrictive measures to prevent the spread of the virus. On the foreign exchange market, the National Bank intervened during the second guarter of the year, amid reduced foreign exchange inflows due to the pandemic. In the second guarter of the year, the foreign reserves increased mainly due to transactions on behalf of the government, and according to all adequacy ratios, they are still in the safe zone. Favorable developments were also registered in the deposit and credit flows, which registered solid growth exceeding the expectations in the April projection.

In terms of sources of risk, they remain markedly downward, and are almost entirely related to the COVID-19 pandemic. Compared to the April forecasts, the risks are even more unfavorable, given the further downward revisions of the projected global economic activity, as well as the extremely high uncertainty about preventing the spread of the disease, as well as the effect on the economy. As highlighted in April, the risks to both the global and domestic economies relate to possible prolongation of infection and restrictive measures, the possible emergence of a second wave of infection and reactivation of public health strategies, as well as changes in the behavior of economic entities in terms of their consumption and investment decisions.

The comparison of the latest macroeconomic indicators of the domestic economy with their forecast dynamics within the April forecasting round indicates certain deviations in the growth intensity and structure. Namely, the initial data on the minimum annual GDP growth of 0.2% in the first quarter of 2020 indicate that already from the end of the first quarter, relatively strong effects of the new viral infection and the measures taken to prevent its spread were recorded. In terms of the growth structure, there was a small positive contribution to domestic demand (significantly lower than the April forecasts), which was almost completely neutralized by the negative contribution of net exports. In the first quarter, gross investment declined, while private and public consumption had a small positive contribution to growth. Furthermore, as expected, in the first quarter there was a decline in real export of goods and services, which is the component with the highest negative individual contribution to GDP growth. The decrease in exports, together with the slower growth of domestic demand, led to a downward adjustment of imports. Available data for the second quarter so far indicate larger decrease in economic activity, in line with April expectations for the strongest negative impact of the new viral infection and measures taken at this time of the year. However, the May data on industrial output and foreign trade indicate launching of new export-oriented facilities, which have a significant share in the economy, which is a positive signal for economic activity in the coming period. On an annual basis, the April forecast predicts a fall of 3.5% in 2020 and growth of 4.7% in 2021, with extremely high uncertainty related to the COVID-19 pandemic and pronounced downside risks. Except for public consumption, all individual expenditure components of GDP are expected to decrease in 2020.

In the second quarter, **the annual inflation rate** was 0.5%, on average, mostly due to the food component of inflation, but with a positive contribution to the basic component, with a simultaneous negative contribution to the energy component. Inflation in this period exceeds the expectations for the quarter, and the deviation from the April forecast is mostly associated with higher performance in food and energy component, while performance in core inflation generally corresponds to expectations. In conditions

of higher performances than expected and at the same time smaller revisions in different direction of the expectations for the import prices, the risks pertaining to the inflation projection for 2020 of around 0% are assessed as upward. Yet, there is still pronounced uncertainty about the future movement of world primary commodity prices in the next period, in line with the uncertain economic effects of the pandemic and its duration.

In the first quarter of 2020, **the current account** deficit was 1.4% of GDP, which is in line with the expectations for the first three months according to the April forecasts. Major deviations from the projection were not registered in the financial account either, which realized net outflows of 0.7% of GDP, with higher performances in direct investments and net borrowing abroad partially offset by lower net inflows on the basis of trade loans and higher net outflows in portfolio investments. The analysis of the balance of payments on an annual basis shows that the deficit of current transactions is almost unchanged compared to the same quarter of the previous year. By component, there was a slightly higher deficit in the foreign trade of goods and services, in conditions of lower deficit in primary income and almost unchanged surplus in the secondary income. In the financial account, the annual changes indicate deterioration of the financial flows, i.e. net outflows were realized, as opposed to the realized net inflows in the first quarter of 2019. Namely, net outflows of loans were realized, due to repayment of a significant amount of long-term credit of the Government to a foreign creditor, trade credits show significantly lower net inflows, while currencies and deposits realized higher net outflows, on annual basis. These movements were partially neutralized by positive annual changes in direct investment inflows. The data on the gross foreign reserves for the second quarter indicate an increase compared to the previous quarter, which is mainly due to the transactions for the account of the government, i.e. the government borrowing from the International Monetary Fund in April and the issuance of securities in the international financial markets.

The lending activity of the banking sector during the second quarter of the year registered accelerated quarterly growth, which was largely a result of the increased lending to the corporate sector, amid a solid positive contribution of household loans. In order to stimulate lending activity, the National Bank has adopted a series of measures since the beginning of the crisis, thus creating conditions for reducing the financing cost through bank loans, as well as for providing additional liquidity in the banking system. On annual basis, at the end of the second quarter the credit growth reached 6.6%, which is above the projected annual growth according to the April forecast (4.3%). Regarding the sources of financing, in the second quarter, accelerated growth was registered at the deposit base as well, which was largely due to the increase in household deposits, amid solid growth of deposits of enterprises and other financial institutions. Such changes in the deposit base are consistent with the packages of measures of the Government to deal with the consequences of the health crisis, through which additional funds were provided to companies and households in order to improve their liquidity. The annual growth of total deposits at the end of June was 8.4%, which is a solid growth and is higher than expected with the April projection (6.3%).

In general, recent macroeconomic indicators and assessments indicate strong effects of the COVID-19 pandemic on both the global and domestic economy. Although the economic fundamentals in the medium term are assessed as sound, the environment in which monetary policy is implemented is variable, with extremely high uncertainty. The measures taken by the National Bank in the first half of the year are expected to provide further and adequate credit support to the domestic economy by the banks, in the absence of inflationary pressures. Foreign reserves are within expectations and are expected to remain in the safe zone, and inflation is estimated to remain within acceptable limits. In the period head, the National Bank will continue to carefully monitor the trends and potential risks from the domestic and external surrounding in the context of the monetary policy setup.

I. Macroeconomic developments

1.1. International economic surrounding

In the first quarter of 2020, there was a significant reduction in global economic activity, amid simultaneous unfavorable economic developments in both developed and developing countries. These developments are largely related to the spread of the new viral infection globally and the restrictive measures taken to prevent further spread of the virus. Thus, the euro area, as our most important trading partner, in the first quarter recorded a decrease in economic activity of 3.1% on an annual basis, which is the largest fall recorded in the euro area since the third quarter of 2009. The latest perceptions of the world economic growth in the coming period are influenced by the weaker performances in the first half of the year and the extremely high uncertainty about the further developments related to the new viral infection and its effects on global economic activity. In addition, the expectations have been revised downwards and point to a 4.9% decrease in global economic activity in 2020, which is estimated to be the largest global recession since the Great Depression of the 1930s. On the other hand, there are expectations for recovery and global economic growth of 5.4% for 2021. As for the risks, they are mostly downward, and the uncertainty about the further development of the pandemic is a key factor that determines the risks to global growth.

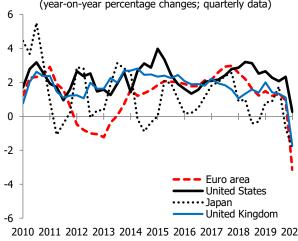
As a result of the negative effects of the COVID-19 pandemic, the global economic activity reduced significantly in the first quarter of 2020, amid simultaneous unfavorable economic performance in both developed and emerging economies. Thus, viewed by individual economies, the euro area, Japan and the United Kingdom recorded a real annual decrease in the first quarter of the year, while the United States registered slight economic growth. In the first quarter of 2020 the Japanese economy again recorded a real annual decrease of 1.9% (a fall of 0.7% in the previous quarter) and entered a recession¹, amid unfavorable performance in domestic demand and net exports. In the first quarter the United Kingdom recorded a real annual decrease of 1.7%, compared to the growth of 1.1% in the previous guarter, with negative effects in almost all sectors of the economy. The decline in economic activity in the euro area equaled 3.1% on an annual basis, which is the highest fall since the one in the third quarter of 2009 (of 4.5%, as a result of the financial crisis in that time) and is due to the decrease in household demand and exports, as well as the slowdown in investment growth. In the first quarter, the US economy registered a small real annual growth of 0.3%, which is a significant slowdown in growth (growth of 2.3% in the previous quarter), amid a significant fall in domestic demand. According to unemployment data, the perspectives for the US economy for the second quarter have deteriorated significantly. Namely, the average unemployment rate in the United States of 3.8% in the first quarter increased significantly in the first two months of the second quarter and reached 14%, which is the highest unemployment rate ever.²

 $^{^{1}}$ For two consecutive quarters, Japan has been registering a decrease in economic activity compared to the previous quarter (1.9% in Q4 2019 and 0.6% in Q1 2020).

² The series on the US unemployment rate date back to January 1948.

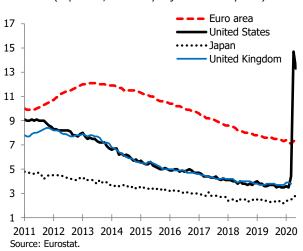
Real GDP growth in advanced economies

(year-on-year percentage changes; quarterly data)



Unemployment in advanced economies

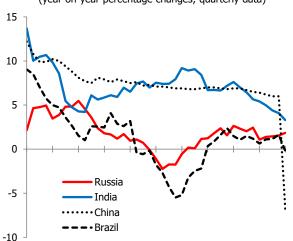
(in percent; seasonally adjusted monthly data)



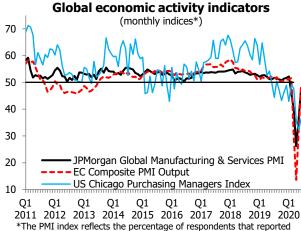
2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 Source: OECD.

In the first quarter of the year, the economic activity in the emerging countries showed mainly downward shifts. Thus, China's economy, which was first hit by the new viral infection, registered a high real decrease of 6.8% on annual basis (as opposed to the 6% growth in the previous quarter), which, since the data exist, is the first decrease since 1992. Thereby, an activity reduction was registered in all sectors, with industry and services sector being affected the most. Furthermore, a small real decline of 0.2% on an annual basis was registered in Brazil (compared to the growth of 1.6% in the last quarter), which is the first decline after three years of continuous growth of the Brazilian economy, with a decrease in activity in almost all sectors being registered. In the first quarter, the Indian economy recorded slowdown in its real annual growth to 3.3% (growth of 4.1% in the previous quarter), which is the slightest growth since the first quarter of 2009. The slowdown in growth is due to the slower domestic demand and a negative contribution to net exports. On the other hand, Russia registered real economic growth of 1.8% on annual basis, which is a slight acceleration compared to the growth of 1.5% in the previous guarter, amid accelerated growth in private consumption and lower negative contribution to net exports.

Real GDP growth in emerging economies (year-on-year percentage changes; quarterly data)



2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 2020 Source: OECD.



*The PMI index reflects the percentage of respondents that reported better bussiness conditions compared to the previous month and it can take values between 0 and 100. PMI=50 is considered as a reference value, indicating unchanged economic conditions. A PMI value over 50 is taken to indicate that the economy is expanding, while a PMI value below 50 suggests that the economy is contracting. Source: Markit, ISM-Chicago.

In terms of growth estimates for the second quarter, recent high-frequency survey indicators indicate a significant activity reduction. Thus, the average value of the PMI index in the second quarter of the year was 36.7 (45.9 in the first quarter), with the lowest value of the index so far being recorded in April (26.2), largely reflecting the more intense global spread of the new viral infection and the restrictive measures taken by countries to prevent further spread of the virus.

According to the IMF forecasts from June, it is estimated that in 2020 the global economy will fall by 4.9%, while in 2021 recovery and economic growth of 5.4% is expected, so that the level of GDP in 2021 will be just above the 2019 level. These figures mean a downward revision for 2020 by 1.9 percentage points, compared to the April projections, with a deeper decline than previously expected in the first half of the year and slower recovery in the second, and expectations for smaller growth by 0.4 percentage points for 2021. The baseline scenario again assumes a gradual recovery of the global economy in the second half of 2020, but with slower dynamics than previously expected. In addition, the assumptions for countries with declining rates of infection include the application of social distance measures also in the second half of 2020, a greater negative effect of restrictive measures taken in both the first and the second quarter on the economy than previously expected, reduced productivity due to the application of special workplace protection measures, as well as the absence of similar strict restrictive measures in the future. For countries that will face difficulties in controlling the spread of the disease, additional negative effects on economic activity are expected due to the further need of applying restrictive measures.

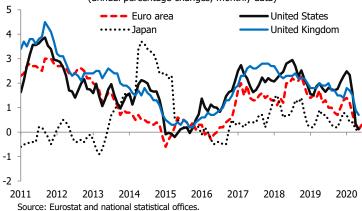
Global economic growth projections are characterized by extreme uncertainty, largely related to the prospect of tackling the pandemic. In general, the risks for the next period are downward and refer to the possibility of re-intensification of the infection in countries where the situation is currently under control and the introduction of restrictive measures that would further adversely affect economic activity and labor market conditions, the possibilities of tightening of the conditions in the financial markets and the premature termination of the extensive measures of the policies for prevention of the crisis or their inadequate targeting. Furthermore, other risks unrelated to the pandemic relate to tensions between the United States and China, deteriorating relations between OPEC + member states, and the possibility of social unrest in some countries. On the other hand, the projected global economic downturn may be milder if the normalization process accelerates more than expected, there may be advances in medical treatment or advances in vaccine discovery, or there may be advanced changes in production, distribution, and payment systems during the pandemic (from new techniques in medicine to the accelerated process of digitalization, as well as the shift towards greater use of renewable energy sources), which could have a positive impact on productivity. Based on the risks, the IMF is working on two alternative scenarios, with the first scenario assuming a resurgence of the infection in early 2021, while the second assumes a faster economic recovery3.

When it comes to global inflation, the second quarter of 2020 registered a slowdown in inflation compared to the previous quarter, mainly reflecting the decrease in global demand and lower oil prices, as a result of the spread of a new viral infection in the world.

³ Under the first scenario, which assumes that there will be a new wave of global intensification in early 2021, taking restrictive measures will cause global GDP in 2021 to be 4.9% lower than the baseline scenario. According to the latter, which assumes a faster recovery of the global economy, global GDP would be higher by 0.5% in 2020 and 3% higher in 2021 compared to the baseline scenario.

Inflation in advanced economies

(annual percentage changes; monthly data)



In the first quarter of the year the euro area registered a real decrease of 3.1% on an annual basis (decrease of 3.6% on a quarterly basis), which is the largest drop since the third quarter of 2009 when the decrease was 4.5%, as a result of the financial crisis in that time. The negative economic performance in the first quarter of the year is due to the pandemic and the introduced restrictive measures to prevent it, which had a negative effect on industry and the services sector, given the simultaneous decrease in private and export demand, as well as slower investment growth. In terms of countries, the largest decrease in economic activity was registered in Italy, France and Spain, which were also the most affected countries by the pandemic. Regarding unemployment, in the first two months of the second quarter there was a slight deterioration, so that the average unemployment rate in the euro area was 7.4% (7.2% in the first quarter). According to the June ECB forecasts, in the euro area real GDP decline on an annual basis of 8.7% in 2020 is expected, anticipating real annual growth of 5.2% and 3.3% in 2021 and 2022, respectively. Compared to the March forecasts, a significant downward revision was performed for 2020, reflecting the negative effects of the spread of viral infection, while for 2021 and 2022 an upward revision was made as a result of the transmission effect from the second half of 2020 when stronger recovery of the economy is expected.4 The annual inflation rate in the euro area in the second quarter of 2020 averaged 0.2%, which is a slowdown compared to the previous quarter when the average inflation rate was 1.1%. The slowdown in inflation is due to the slower growth of core inflation, especially in services prices, and the stronger reduction in energy prices. According to the June projections of the ECB, the inflation rate in the euro area is expected to be 0.3% in 2020, then to accelerate to 0.8% in 2021 and 1.3% in 2022, with downward revisions compared to projections in March for all three years⁵.

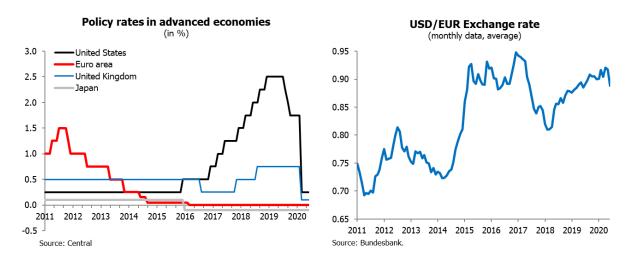
In the second quarter of 2020, developed countries pursued their stimulative monetary policy in order to mitigate the negative effects of the spread of the new viral infection, mainly through unconventional measures. Thus, during the second quarter the interest rate remained unchanged in the United States, the euro area, the United Kingdom and Japan. The FED kept the interest rate at 0.25%, but continued to introduce new measures to stimulate economic activity, such as facilitating lending to small businesses through the Small Business Paycheck Protection Program⁶, establishing a measure to overcome liquidity problems to local authorities, and also increased the volume and eased the conditions for the measures that are already applied to support lending to households and companies. The Bank of England maintained its interest rate at 0.1% during the second quarter, implementing also a number of other measures to support the economy, starting with an additional corporate bond purchase

⁴ Due to the great uncertainty related to the pandemic and its effects on the economy, two additional risk scenarios were developed. Compared to the baseline scenario, the medium risk scenario estimates a lower real economic decline in 2020 by 2.8 percentage points and higher inflation by 0.1 pp, while within the scenario with more pronounced risks, the GDP decrease in 2020 would be deeper by 3.9 percentage points, while the negative effect on inflation would be 0.1 percentage point.

⁵ In March, the inflation rate in the euro area was expected to be 1.1% in 2020, 1.4% in 2021 and 1.6% in 2022.

⁶ The Small Business Administration's Paycheck Protection Program, or just PPP.

(CBPS) in April, and raising in June the maximum amount for the purchase of government bonds through the bank's reserves by 100 billion pounds (to 745 billion pounds), and eased the conditions for some of the measures that are already applied. In the euro area, the interest rate remained unchanged at 0%, but the ECB took various measures to stimulate economic activity, so in June it announced an additional increase of Euro 600 billion under the new program for the purchase of securities due to the new viral infection pandemic, with the current amount of Euro 1.350 billion, and the prolonging the deadline for program implementation from the end of this year to June 2021. Furthermore, the ECB announced additional easing of conditions under the third package of targeted long-term repo operations (TLTRO III) in the period between June 2020 and June 2021 by reducing the interest rate by 0.5 percentage points, as well as a new a series of 7 additional pandemic-related long-term repo operations (PELTRO), which will be carried out after the expiration of the long-term repo operations (LTRO). The Bank of Japan also did not change its interest rate (-0.1%), but strengthened the monetary easing by increasing the purchase of corporate securities, easing the conditions under the special fund for facilitating private sector financing due to the new corona virus, while in May a new measure was adopted to support lending to small and medium-size enterprises by financial institutions⁷, and also continued with the purchase of government securities and ensuring domestic and foreign exchange liquidity to stabilize the financial markets.

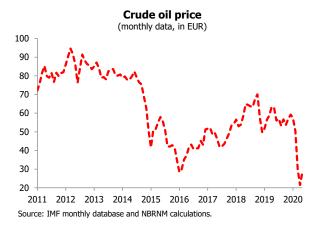


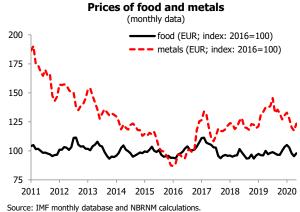
In the second quarter of 2020, the value of the US dollar against the euro, on average, registered a slight appreciation of 0.2% compared to the previous quarter and amounted to Euro 0.91. This change was mainly due to the resurgence of geopolitical tensions between China and the United States. On an annual basis, the US dollar appreciated by 2.1% against the euro.

The price of oil in the first two months of the second quarter of 2020 decreased significantly by 45.5% compared to the previous quarter, where the average price was reduced to 25 euros per barrel, which is a record low price in recent years. The sharp drop was largely due to declining global demand following the outbreak of a new viral infection and extensively increased stocks in the United States, despite an agreement by OPEC + members to extend the limited oil production agreement until the end of July. On annual basis, in the first two months of the second quarter of 2020, the oil price also dropped sharply by 58.9%.

⁷ The new measure and the previous ones will be combined under a program called the Special Funding Support Program in response to the new corona virus, with a total support amount of about 75 trillion yen, and the duration of these measures has been extended for another 6 months, until end of March 2021.

⁸ The realized price is the lowest from the second quarter of 2003 onwards, when the price of oil was 23 euros per barrel.





Prices of non-energy primary products⁹ (in euros) registered a quarterly fall of 2.4% in the first two months of the second quarter of 2020 compared to the last quarter. Analyzed by product group, the decrease was due to the decline in food prices, while metals prices registered a slight increase, caused by the rise in the prices of precious metals. Thus, the food price index¹⁰ decreased by 5.2% compared to the previous quarter, within which there was a decline in the prices of almost all food categories. Only cereals increased, with the price of wheat rising as a result of increased demand amid export restrictions in the Black Sea region, while the price of corn decreased as a reflection of reduced demand for industry. The base metals index¹¹ decreased by 5.2% compared to the previous quarter, due to the fall in prices of almost all metals, especially copper and aluminum, generally reflecting the growing uncertainty and reduced demand due to the spread of the COVID-19 virus. On an annual basis, the euro prices of primary non-energy products increased by 1.5%.

In terms of macroeconomic performance in the economies of the region, in almost all countries there was an increase in economic activity in the first quarter of 2020, but at a slower pace compared to the previous quarter. The unfavorable movements are mainly due to the negative effects related to the spread of the virus and the measures taken to prevent further spread of the infection. The highest growth in the region was registered by Serbia (5%), Turkey (4.5%) and Romania (2.4%). Growth in Serbia stems from domestic demand, in conditions of high investment activity, solid private consumption and significant fiscal momentum, as opposed to net exports, whose increased negative contribution is the main factor in slowing growth. The growth of the Turkish economy stems from solid private consumption, which is still slowing down and contributing most to the slowdown in total growth, while investments in fixed assets and net exports have a negative contribution. The slowdown in economic growth in Romania is due to the growth deceleration in all components of domestic demand, as well as due to declining exports, with the declining domestic demand being also a key factor for the slowdown in the Bulgarian economy, amid more favorable net exports. In Croatia, GDP growth slowed significantly, due to lower growth in household consumption, as well as slower growth in fixed assets investment and declining exports. Only, the economic activity in Albania is declining, which is deeper drop compared to the previous quarter and is due to the decline in industry and in the sector "trade, transport, hotels and restaurants".

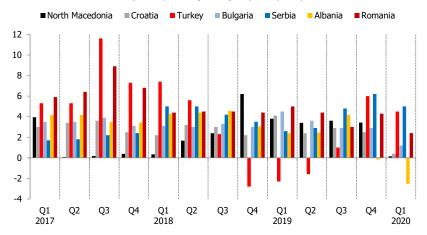
⁹ This aggregate index includes the Precious Metals Index, the Food and Beverage Index, the Agricultural Raw Materials Index and the Basic Metals Index.

¹⁰ This index includes the following primary food products: cereals, vegetable oil, meat, seafood, sugar and other foods.

¹¹ This index includes the following metals: aluminum, cobalt, copper, iron, lead, molybdenum, nickel, tin, uranium and zinc.

Real GDP growth in countries from the region

(annual percentage changes, quarterly data)



Source: Eurostat and national statistical offices.

In the second quarter of 2020, the average annual inflation rate in the countries of the region slowed down, with the exception of Albania, where there was a slight acceleration compared to the previous quarter, while in Croatia a negative inflation rate was recorded. Despite the slight slowdown, the inflation rate remains relatively high in the Turkish economy, and the slowdown is due to lower energy prices. The significant drop in energy prices is also a major factor in the slowdown in inflation in Serbia and Kosovo in the first two months of the second quarter. In Romania, lower inflation stems from deeper decrease in energy and core inflation, while in Bulgaria it is due to significantly lower transport prices, amid weaker economic activity due to measures taken to prevent the spread of the new virus, as well as slower price growth of food. In Croatia, in the first two months of the second quarter, a small negative inflation rate was recorded, for the first time since 2016, due to the high decrease in energy prices and the weaker growth of core inflation. On the other hand, only in Albania there was a slight acceleration of inflation compared to the first quarter, mainly due to more intensive growth of food prices.

Inflation in countries from the region (annual percentage changes)

24 22 20 18 16 14 12 10 8 6 -2 Q3 Q1 Q2 Q3 Q4 Q1 Q2 Q3 Q1 Q2 2017 2018 2019 2020

Source: Eurostat and national statistical offices

1.2. Domestic supply

The emergence of the new COVID-19 viral infection and the measures taken to prevent its spread from mid-March 2020, led to a significant slowdown in the growth of the domestic economy in the first quarter. The real GDP growth in the first quarter of 2020 was 0.2% on an annual basis, versus 3.4% in the previous quarter. The deterioration of the business activity is visible in most of the economic activities, and the biggest negative contribution is noticed in the industry and the activities from the group "trade, transport and catering". The available data for the period April-May 2020 are mainly unfavorable and indicate a decline in economic activity in the second quarter of the year, amid restrictive measures taken in the first two months of the second quarter12 to prevent the spread of viral infection and worsened perceptions of the economic agents. Such movements also correspond to the assessments of the business situation of the enterprises in the retail trade, construction and processing industry, which significantly deteriorated in the second quarter. However, the managers of these activities show a gradual return of optimism related to their expectations for the next period, which are more favorable compared to the second quarter.

In the first quarter of 2020, the domestic economy reported a minor real growth of 0.2% annually. This movement is a significant slowdown in annual growth (3.4% in the fourth quarter of 2019), while on a quarterly basis there was a fall of 4.1% (seasonally adjusted), a decrease that has not been observed in the last ten years. Considering that the measures taken to deal with the COVID-19 virus started in the second half of March, during the first quarter, positive rates of change were registered in some of the activities, with the highest individual positive contribution being given by the activities related to real estate activities and information and communication. Agriculture, construction and the group of activities "art, entertainment and recreation" also have a positive contribution to economic growth, although with less intensity. On the other hand, in the first quarter there was a deepening of the decrease in value added in industry (with unfavorable performance in the energy sector and manufacturing), and a more negative contribution to overall economic growth has the group of activities trade, transport and hotels and restaurants, which was one of the main drivers of growth in the past. 13

 $^{^{12}}$ Measures to prevent the spread of the virus included closing borders, restricting the movement of people within the state, closing accommodation facilities and closed shopping malls, introducing a

full ban on visiting cafes, bars, clubs, as well as restricting the operations of restaurants by not allowing visits by consumers, envisaging a possibility of selling in an alternative way (via online orders, telephone orders, etc.).

¹³ "Financial and insurance activities", "administrative and support service activities" and "public administration and defense"; compulsory social insurance; education; health and social protection activities" also have a negative contribution to economic growth.

Annual growth rates (in %)

(/0)			anı	nual gro	wth ra	tes, in ^o	%		
	2016	2017	2018	2019	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Agriculture	-0.4	-12.5	7.4	3.8	9.6	3.6	0.6	3.1	2.8
Industry	-3.0	1.4	4.1	3.1	5.7	4.3	6.8	-3.1	-5.1
Manufacturing	-1.5	1.6	4.5	-0.1	1.9	-0.7	-0.5	-0.7	-1.3
Construction	-2.8	1.6	-11.9	5.9	6.7	4.8	5.5	6.7	1.5
Trade and transport	8.7	7.1	5.9	4.7	3.4	2.1	4.9	8.1	-1.3
Information and communication	7.2	7.6	-6.4	-0.9	-5.5	-6.1	2.2	5.7	10.4
Financial and insurance activities	1.5	1.9	2.6	0.2	-0.8	0.4	0.9	0.2	-1.9
Real estate activities	-3.2	-1.6	0.1	3.3	3.7	4.2	2.4	2.9	6.5
Professional, scientific and technical activitiess	11.5	8.8	7.5	3.1	-0.1	3.6	4.5	4.5	-2.8
Public administration	3.5	-2.2	2.6	2.9	5.6	3.6	1.2	1.3	-0.9
Other service activities	7.2	3.1	3.0	-2.0	-8.6	-3.8	1.0	4.1	5.2
Gross Domestic Product	2.8	1.1	2.7	3.6	3.8	3.4	3.6	3.4	0.2

^{*}From the release for GDP of 08.06.2020

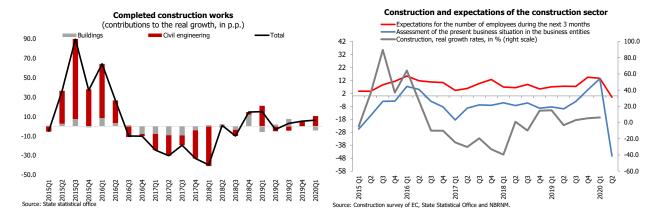
Source: State Statistical Office and NBRNM calculations.

Contributions to the GDP growth (in percentage points)

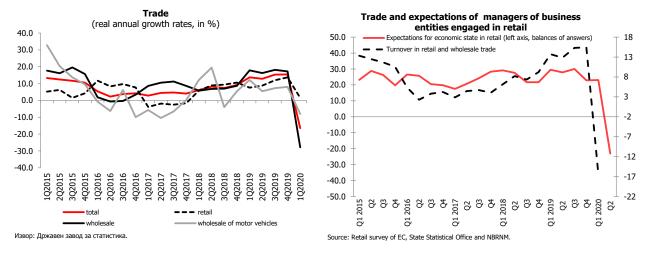
3.2.1.1.1 (p 0.2011.1		,,,,	contribu	ution in (GDP gro	wth, in	p.p.		
	2016	2017	2018	2019	Q1 2019	Q2 2019	Q3 2019	Q4 2019	Q1 2020
Agriculture	0.0	-1.1	0.6	0.3	0.6	0.2	0.1	0.4	0.2
Industry	-0.5	0.2	0.7	0.6	1.0	0.8	1.2	-0.6	-1.0
Manufacturing	-0.2	0.2	0.6	0.0	0.2	-0.1	-0.1	-0.1	-0.2
Construction	-0.2	0.1	-0.8	0.3	0.3	0.3	0.3	0.4	0.1
Trade and transport	1.6	1.3	1.2	0.9	0.7	0.4	1.0	1.5	-0.3
Information and communication	0.2	0.2	-0.2	0.0	-0.2	-0.2	0.1	0.1	0.4
Financial and insurance activities	0.0	0.1	0.1	0.0	0.0	0.0	0.0	0.0	-0.1
Real estate activities	-0.4	-0.2	0.0	0.3	0.5	0.4	0.2	0.2	0.7
Professional, scientific and technical activitiess	0.4	0.3	0.3	0.1	0.0	0.1	0.2	0.2	-0.1
Public administration	0.4	-0.3	0.3	0.3	0.7	0.4	0.1	0.2	-0.1
Other service activities	0.2	0.1	0.1	-0.1	-0.3	-0.1	0.0	0.1	0.1
Gross Domestic Product	2.8	1.1	2.7	3.6	3.8	3.4	3.6	3.4	0.2

Source: NBRNM calculations.

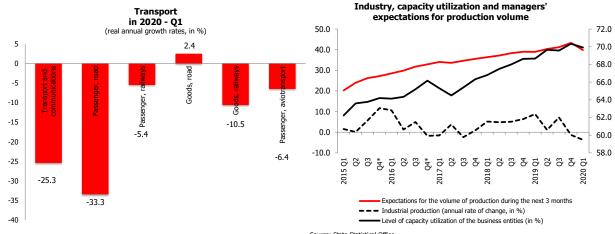
In the first quarter, the construction sector registered real growth on an annual basis and had a positive contribution to the overall economic growth. Based on the high frequency data, in the first quarter, the performed construction works registered solid rate of real growth on annual basis, entirely due to the favorable performance in civil engineering (significant acceleration of activity compared to the previous quarter), which is largely due to continuation of the realization of public infrastructure projects. On the other hand, the building construction activity registered decrease in activity, which is deeper than the one in the previous quarter, in part under the influence of measures taken to prevent the spread of viral infection during March. Observed for the second quarter, the April data indicate a real annual decrease in construction, mostly due to the high drop in building construction, but a negative contribution to the overall performance accounts for civil engineering, as well. Also, the assessments of the managers of the construction enterprises for the movement of their construction activity during the second quarter have significantly deteriorated. On the other hand, the expectations for selling prices, the total number of orders and the number of employees for the next period show a slight improvement.



The decrease in the value added of trade in the first quarter of the year is also evident through the high frequency data on the trade turnover, which registered a relatively high annual decrease in the first quarter, compared to the high growth in the previous quarter. This is largely a reflection of the developments related to the new viral infection and the measures taken to prevent its spread. Observed by types of turnover, only the turnover in retail trade registered a small increase in the first quarter, but significantly more moderate compared to the performances in the previous quarter. In the period April-May, the total trade turnover registered a significant real annual fall, reflecting the unfavorable developments and the substantial fall in the turnover in all three types of trade (wholesale trade, retail trade and trade in motor vehicles). Consequently, the assessments of the managers of the enterprises in the "retail trade" sector for their turnover during the second quarter have significantly deteriorated. As for the expectations in terms of orders, selling prices, as well as the number of employees for the next period, they are generally better and there is a gradual return of optimism.



Regarding **transport**, a decline in annual activity in the first quarter of the year is observed in almost all types of transport, given the restrictions on the movement of population, both locally and internationally. Consequently, the most pronounced decrease on an annual basis is recorded by all types of passenger traffic (rail, road and air traffic). Only in the freight railway traffic a small annual growth was registered in the first quarter, which is a significant slowdown in the activity compared to the previous quarter.



Source: State Statistical Office

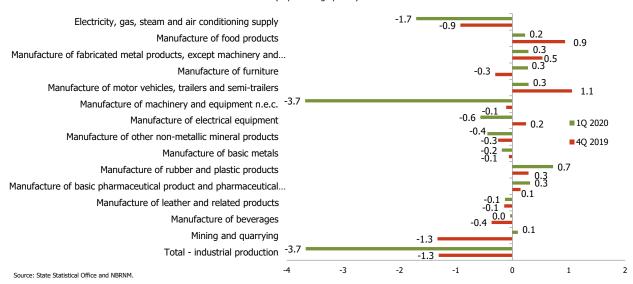
Source: State Statistical Office

In the first quarter of 2020, the real annual decrease in value added in industry deepened. Despite the growth in the first two months of the guarter, this industry movement is entirely a result of the downward adjustment in March in accordance with the measures taken to prevent COVID-19. Analyzed by activities, by the index of industrial production, in the first quarter, the annual decrease in industry was mainly due to the weaker performance of energy sector and manufacturing industry¹⁴, while mining recorded a small positive contribution.¹⁵ Within the manufacturing industry, in the first quarter, the activities in "production of machine devices, not mentioned elsewhere", "production of electrical equipment", as well as the activity "production of other non-metallic mineral products" had the largest negative contribution. On the other hand, activities within the manufacturing industry where the highest positive contribution was registered in the first quarter are "production of rubber and plastic products", "production of basic pharmaceuticals and pharmaceuticals", as well as activities "production of fabricated metal products, except machinery and equipment", "manufacture of motor vehicles, trailers and semi-trailers" and "manufacture of furniture". In the period April- May, industrial output registered a significant deterioration on an annual basis, compared to the decline recorded in the first quarter of the year. Moreover, the largest decline and consequently the highest negative contribution were registered in the manufacturing industry, amid fall in mining and energy sectors. Similar to other sectors, the managers of the industrial sector have significantly deteriorated assessments of production in the second quarter, while in terms of the movement of production, selling prices and the number of employees in the coming period, there is a gradual return of optimism.

¹⁴ As of mid-March, some of the new industrial facilities have temporarily suspended production to reflect disrupted global production and logistics chains.

¹⁵ The analysis of trends in industry uses data on the SSO's monthly data for the industrial output indices.





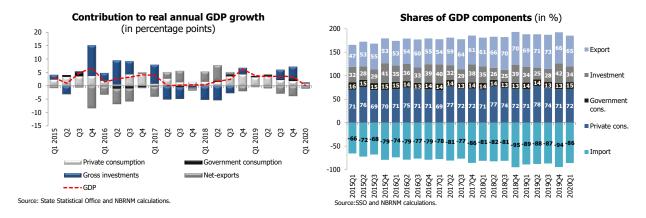
1.3. Aggregate demand

In terms of demand, annual GDP growth of 0.2% in the first quarter of 2020 was due to the positive contribution of domestic demand, which was largely offset by the further, albeit more moderate, negative contribution of net exports. Thereby, the growth of domestic demand in the first quarter significantly slowed down, resulting from the small decline in gross investment, as opposed to their solid growth in the previous quarter, as well as the slowdown in the growth of private and public consumption. Namely, the developments related to the outbreak of COVID-19 caused deterioration of the business activity and disruption of the trust and expectations of the companies, and thus of the opportunities and inclination for investment. At the same time, the restrictive measures, as well as the uncertainty, led to a delay of a part of the consumption. After the slight decline in the previous quarter, exports continued to decrease more sharply in the first quarter of this year, representing the component with the highest negative individual contribution to GDP growth. Given the import dependence of the domestic economy, the decrease in exports, along with the slower growth of domestic demand, led to a downward adjustment of imports.

The structural analysis of the GDP components¹⁶ in terms of demand shows that the growth is due to domestic demand, while net exports have a negative contribution. By components of the domestic demand, the spread of the COVID-19 virus and the restrictive measures taken to deal with it, led to deterioration of business activity and increased uncertainty among companies, due to which gross investment declined slightly and had a negative contribution to growth. The presence of restrictive measures as well as the uncertainty led to a delay of a part of the consumption, which slowed down the growth of private consumption in this period. Public consumption also registered weaker growth. The decline in exports, which was observed in the last quarter of 2019, deepened in the first quarter of 2020, with exports being the component with the highest negative individual contribution to overall economic

¹⁶ The quarterly changes in GDP and its components are calculated on the basis of seasonally adjusted data.

growth. Due to the weaker domestic demand, as well as the reduced export, in the first quarter of the year, annual decrease was realized in imports, as well. However, amid a larger fall in exports than imports, net exports had a negative contribution to overall economic growth in this quarter as well.



			Real	annua	l grow	th rat	es (%	6)			Contributions to real annual growth (in p.p.)**										
	2015	2016	2017	2018	2019	2019-Q1	2019-02	2019-Q3	2019-Q4	2020-Q1	2015	2016	2017	2018	2019	2019-01	2019-02	2019-03	2019-04	2020-Q1	
Private consumption	4.4	3.9	2.1	3.7	3.5	4.4	4.4	2.9	2.4	1.2	3.1	2.7	1.4	2.4	2.3	2.8	3.0	1.9	1.6	0.8	
Government consumption	3.9	-4.9	-2.6	2.0	4.5	3.8	4.8	2.0	7.1	2.4	0.7	-0.8	-0.4	0.3	0.7	0.6	0.7	0.3	1.0	0.4	
Exports of goods and services	8.5	9.1	8.3	15.6	8.3	17.8	11.7	8.3	-1.6	-5.4	4.0	4.4	4.2	8.6	5.0	9.9	7.0	5.2	-1.1	-3.3	
Imports of goods and services	9.9	11.1	5.2	9.1	9.0	13.8	10.4	10.7	2.8	-3.2	-6.5	-7.2	-3.4	-6.2	-6.6	-9.7	-7.4	-7.5	-2.3	2.4	
Gross capital formation	8.3	12.5	-2.2	-7.3	6.6	-0.2	-0.4	14.1	11.5	-0.5	2.5	3.8	-0.7	-2.4	2.1	0.3	-0.6	3.1	5.1	-0.1	
Domestic demand	5.4	5.1	0.3	0.3	4.4	3.0	3.4	5.3	<i>5.7</i>	0.9	6.3	5.6	0.3	0.4	5.1	3.7	3.1	5.3	7.8	1.1	
Net exports*	14.1	16.7	-2.7	-9.4	11.3	2.1	5.4	25.1	<i>15.0</i>	4.5	-2.4	-2.8	0.8	2.3	-1.5	0.3	-0.4	-2.3	-3.4	-0.9	
Statistical discrepancy											0.0	0.0	0.0	0.0	0.0	-0.2	0.6	0.6	-1.0	0.0	
GDP	3.9	2.8	1.1	2.7	3.6	3.8	3.4	3.6	3.4	0.2	3.9	2.8	1.1	2.7	3.6	3.8	3.4	3.6	3.4	0.2	

^{*}decrease represents lower deficit

In order to comply with the official real growth rates, the statistical discrepancy is included in the aggregate GDP.

Source: SSO and NBRNM calculations.

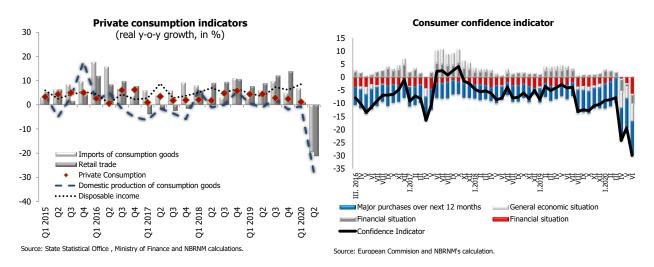
1.3.1. Private consumption

The growth of private consumption on an annual basis continued in the first quarter of 2020, but significantly slower. Namely, due to the restrictive measures that were introduced in March, but also due to the postponement of part of the consumption in conditions of uncertainty from the further spread of COVID-19 virus, private consumption decreased on a quarterly basis by 1.3%, making the annual real growth rate reduced to 1.2%. The growth of private consumption was fully supported by the growth of disposable income due to the accelerated growth of stock of wages¹⁷ and pensions, given declining private transfers amid global uncertainty and movement restrictions caused by the COVID-19 virus. During the first quarter, the growth of household lending by banks continued, but at a slightly more moderate pace.

^{**} Contribution components do not sum to total GDP due to statistical discrepancies in real amounts.

¹⁷ The growth partly reflects the increase in the minimum wage, the increase in the wages in the public sector, as well as the effect of the measure for subsidizing contributions due to wage increase (for more information see section 1.3. Employment and wages)

The signals of the available high frequency data on private consumption indicate fall¹⁸ in the second quarter of 2020. In the period April-May, there was a double-digit fall in retail trade, domestic production of consumer goods, import of consumer goods and gross revenues from VAT. Also, the signals from the consumer confidence surveys¹⁹ conducted in the second quarter indicate a significant decrease in confidence amid greater restraint from larger purchases and unfavorable expectations regarding the general economic situation, as well as expectations and perceptions of deteriorating financial condition of households. In terms of sources of financing private consumption, the available data so far indicate an increase in disposable income, but with a significant slowdown in annual wage growth and more moderate growth in household loans, while the growth of the pensions stock accelerates. This partially corresponds with the results of the June Lending Survey, which indicate a moderate easing of the total lending conditions and significant net decrease in the households demand for loans in this period.



1.3.2. Public consumption

During the first quarter of 2020, the annual growth of the public consumption slowed down and amounted to 2.4%, with a minimal quarterly growth of only 0.1%. According to the budget data, the annual growth was supported by the growth of most of the main categories of public consumption (mainly higher expenditures for wages²⁰, transfers to local authorities, as well as transfers for health care), while the decrease was observed only in expenditures on goods and services.

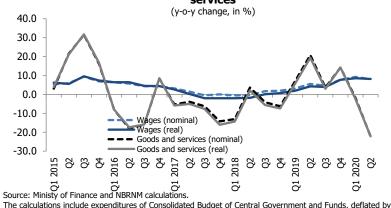
The data on the budget execution as of April-May 2020 indicate an annual deceleration in **public consumption** in the second quarter, mainly due to the reduction in the expenditures on goods and services.

¹⁸ From the indicators for personal consumption, data on turnover in retail trade, pensions, domestic production of consumer goods, imports of consumer goods and household loans refer to the period April- May 2020, while net wages are as of April 2020.

¹⁹ European Commission's Consumer Survey as of June 2020. The chart shows the consumer confidence index as a net percentage of responses. This index is an integral component of the total index of economic confidence. Starting from January 2019, the European Commission revised the structure of consumer confidence indicator, and accordingly, the composite indicator of economic confidence. For more information on the new methodological changes visit: https://ec.europa.eu/info/files/revised-consumer-confidence-indicator_en_. In a press release of 23 March 2020, the European Commission stated that due to the corona virus, the data collection period in most countries had stopped earlier than usual. Only about 15% of consumer responses were provided after the introduction of strict restraint measures by individual countries.

²⁰ According to the increase in wages for the employees in the public sector (in more detail in section 1.3 Employment and wages).

Expenditures for Wages and salaries and Goods and services



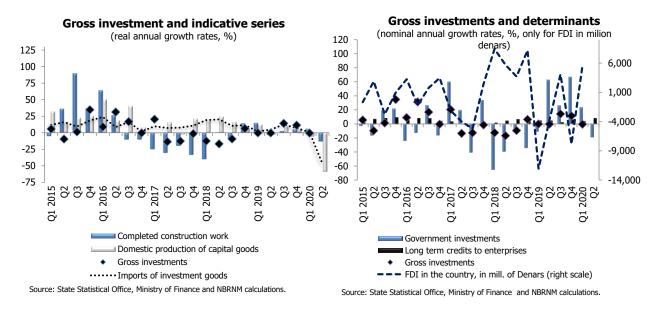
1.3.3. Investment consumption

The growth of gross investments, which started in the second half of 2019, was interrupted in the first quarter of 2020, primarily due to the developments with the new viral infection, which reflected on the confidence and expectations of business entities, resulting in a small annual decline of 0, 5%, with double-digit decline on a quarterly basis of 14.5%. Such movements do not fully correspond to the observed annual growth of construction activity and the import of machinery and equipment in this period, as key components of investments in fixed assets, as well as the growth of government capital investments, which was present with lower intensity and this quarter. In the first quarter, the support of the banks through the long-term loans to the companies continued, but with a slightly more moderate dynamics of their annual growth.

In terms of investments²¹ in the second quarter of 2020, most of the high-frequency data are mainly unfavorable. Thus, a double-digit decrease was registered in the total industrial production, domestic production of capital products, import of capital products, as well as in construction and state capital investments. Decline was recorded also in revenues from corporate income tax. The assessments of the managers of the enterprises from construction and industry²² also point to decrease in investments in the second quarter. On the other hand, faster growth was registered in long-term corporate lending by banks, which was also due to the series of measures taken in order to improve the liquidity conditions and ease the financing conditions. This is partly in line with the results of the Lending Survey for the second quarter, where banks reported net easing of credit conditions, but reduced demand for loans.

²¹ Out of the gross investments indicators, data on the government capital investments, domestic production of capital goods, import of means for operation and long-term corporate loans are as of April- May 2020, while data on completed construction works are as of April 2020.

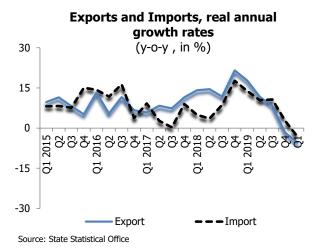
²² European Commission's Survey on business tendencies in construction and industry, as of June 2020.

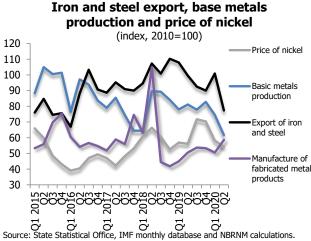


1.3.4. Net external demand

As in the previous three quarters, net exports in the first quarter of 2020 had a negative contribution to the growth of the domestic economy with a larger annual decrease in exports than decrease in imports of goods and services. The fall in foreign demand and the disrupted global production and logistics chains as a result of the viral pandemic had a direct effect on export demand. After the moderate decline of 1.6% in the last quarter of 2019, in the first quarter of 2020 there was a decrease in export activity of 5.4%, on an annual basis and 2.6%, on a quarterly basis. Analyzed by high frequency foreign trade statistics, such performance on the export side are a result of the lower export of part of the foreign export capacities, as well as the smaller exports of some of the traditional sectors (clothing and footwear and iron and steel). Having in mind the import dependence of the domestic economy, the decline in exports together with the slower growth of domestic demand, contributed to a decrease in imports of 3.2% (quarterly drop of 5.6%).

Foreign trade data in the period April-May 2020 indicate potential deficit narrowing in the second quarter of the year compared to the same period last year, amid faster fall in absolute amounts of the import than the fall in the export of goods.

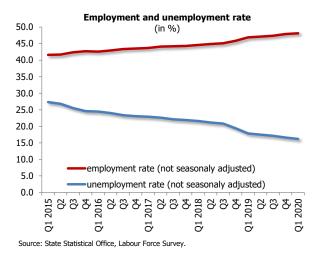


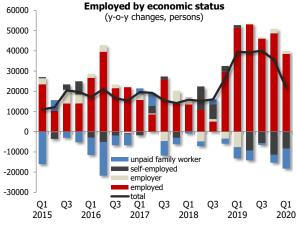


1.4. Employment and wages

Labor market indicators in the first quarter of 2020 show further growth in the number of employees and continuation of the downward trend in the unemployment rate. Namely, the number of employed persons in this quarter realized annual growth rate of 2.7%, and the unemployment rate was reduced to 16.2%. However, the dynamics of employee growth slowed down significantly in the first quarter compared to the growth in the previous year. In addition, the current situation related to the new viral infection and the measures taken to deal with it are expected to have a more pronounced adverse impact on the labor market in the second quarter. Surveys of business trends indicate reduced optimism among company executives regarding employment in the second quarter, but with expectations to improve employment prospects in the next period. Observing labor supply, the annual growth of the active population present since the last quarter of 2016, continued. In terms of competitiveness indicators, labor productivity is still declining, while unit labor costs continue to rise.

Employment increased in the first quarter of 2020, but with slower annual growth dynamics compared to the growth rate in the previous quarter. Thus, the number of employees increased by 2.7% on annual basis (4.6% in the previous quarter) and by 0.8% on quarterly basis (1% in the previous quarter). Analyzed by activity, the largest contribution to the annual employment growth was made by education, manufacturing industry, wholesale and retail trade, repair of motor vehicles and motorcycles and health and social care. Decreased number of employees was registered only in a few activities, mostly in agriculture, activities related to "accommodation facilities and food service activities" and construction. Regarding the economic status²³, the growth of the number of employees is mostly explained by the category "employees".

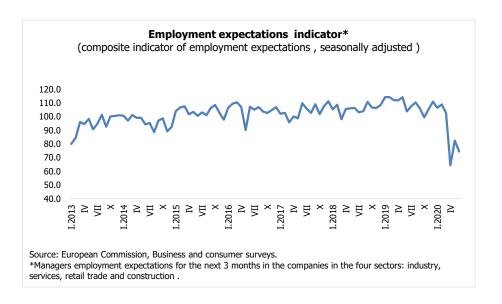




Source: State Statistical Office, Labour Force Survey.

²³ The classification by economic status applies to the following groups: **employers** - persons who operate their own business entity or engages independently in their own shop, or farm owners who hire other employees; **employees** - persons who work in government institutions, business entities in public, mixed, cooperative and undefined ownership or for private employer; **own-account workers** - persons who operate their own business entity, company, engage independently in their own business and work on a farm in order to generate income, while not hiring other employees; **unpaid family workers** - persons who work without pay in a business entity, shop or farm (owned by a family member).

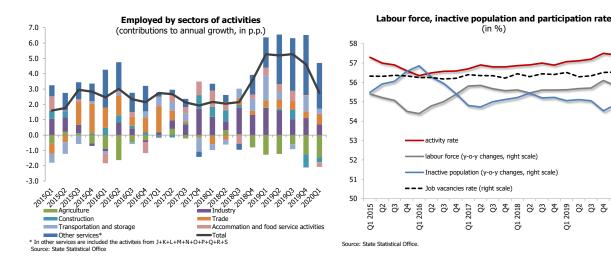
In the first quarter of 2020, the employment rate amounted to 48.1%, which is an annual growth of 1.2 percentage points. On the other hand, the aggregated signals from the business tendency surveys²⁴ mainly indicate reduced optimism among the managers of the business entities regarding the employment expectations for the second quarter, primarily due to the uncertainty caused by the COVID-19 virus infection, but with expectations for a gradual return to optimism and more favorable perspectives for the future.



In the first quarter of 2020, **the job vacancy rate**²⁵ **equals 1.8%** (as in the same quarter of 2019). The job vacancy rate has been relatively stable over a long period, which, amid continuous decrease in the unemployment rate, points to possible improvement of the connection process of the supply with the demand for skills in the labor market. Observed by activity, the highest job vacancy rate was registered in administrative and auxiliary services (4.1%), mining and quarrying (3.9%), information and communication (2.8%) as well as in construction (2.7%).

²⁴ Source: European Commission, Business Trends Surveys, employment expectations for the next 3 months in industry, services, retail and construction (surveys conducted in April, May and June 2020).

²⁵ The job vacancy rate is defined as the ratio between the number of job vacancies and the total number of jobs. Usually, the job vacancy rate is considered along with the unemployment rate (a relationship known as the Beveridge Curve). The placement of these two indicators gives information on labor market performance in terms of potential mismatches between demand profiles and those available on the job market at a given moment (skill mismatches). In particular, if both indicators are moving simultaneously, they are temporary, cyclical fluctuations, while in the case of the unemployment rate decreasing, with a stable vacancy rate, these are structural changes, that is, improving the efficiency of the labor market.



Analyzing labor supply, the favorable trends from the last quarter of 2016 continued in the first quarter of 2020. Thus in the first quarter, the total labor force increased by 0.7% annually, while the activity rate equaled 57.4%.

4.0

2.0

0.0

-2.0

-4.0

The stronger rise in the demand relative to supply of labor force in the first quarter of 2020 resulted in further fall in unemployment. The number of unemployed in the first quarter decreased by 8.6% annually, while the unemployment rate reduced to 16.2% (annual and quarterly fall of 1.6 and 0.4 percentage points, respectively).

Average paid net and gross wages in the first quarter increased by 10.7% and 11.4%²⁶, **respectively**, reflecting in part the growth of the statutory minimum wage²⁷, the increase in public sector wages²⁸, as well as the effect of the measure for subsidizing contributions due to wage increases²⁹. Thereby, wage growth was registered in all economic activities, and the highest annual net wage growth was registered in manufacturing industry, "professional, scientific and technical activities", followed by the activities "art, entertainment and recreation",

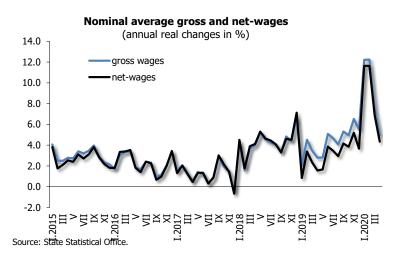
²⁶ The faster increase in gross wages compared to net wages is a result of the increase in the rates at which contributions for compulsory pension and disability insurance and compulsory health insurance are paid. The rates at which contributions are paid in 2020 are 18.8% for compulsory pension and disability insurance and 7.5% for compulsory health insurance (previously these rates were 18.4% and 7.4%, respectively).

²⁷ During 2019, the minimum wage was increased twice, in April and December. In April, the minimum wage was increased from Denar 12,165 to Denar 12,507 net wage (gross from Denar 17,370 to Denar 17.943) in accordance with the adjustment with the increase for the previous year of the average wage paid in the RNM, the consumer price index and the real GDP growth (with one third of the growth of each indicator, respectively, Law on Minimum Wage, Official Gazette of the Republic of North Macedonia No. 59/19). With the additional increase in December (of around Denar 2000 net), the amount of minimum wage which is paid for the period from December 2019 to March 2020 is Denar 14,500 in net amount (Law on Minimum Wage, Official Gazette of the Republic of North Macedonia No. 239/19).

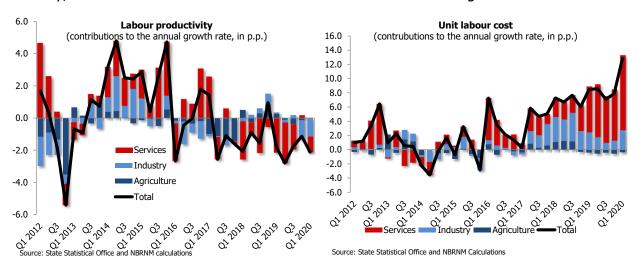
²⁸ The wages of health workers were increased by 5%, starting with the payment of the September wage in 2019. Also, the Decision of the Government of the Republic of North Macedonia adopted in May 2019, leveled the wages of around 2,900 employees in the field of culture, from both the national and the local institutions, starting from the April wage for 2019. In addition, the amendments to the Law on Protection of Children increase the wages of educators, carers/nurses, professional workers and associates by 16%, starting with the June wage in 2019, and the Labor Agreement increases the wages of ancillary-technical staff. The wages of social workers were also increased by 22% with the payment of the June wage, and with the payment of the September wage they also received an additional increase of 5%. In addition, there was 5% salary increase for employees in education, police, defense and the entire public sector, starting with the September wage in 2019. In January 2020, an additional wage increase of 10% was made in education, and from February 2020, an additional wage increase was made for health care workers (increase of 25% for specialists, 15% for general practitioners, 10% for nurses, and 5% for health care associates and support staff).

²⁹ According to the Law on subsidizing contributions from compulsory social insurance due to wage increase, which started to be enforced with the payment of the November wage (Official Gazette of the Republic of North Macedonia No. 239/19), whereby the subsidizing of contributions is approved if the increase in the net wage is in the amount of at least Denar 600 up to Denar 6000 per month by insuree (Official Gazette of the Republic of North Macedonia No. 239/19, Articles 2 and 3).

trade, education, information and communications, as well as in construction. In the first quarter, given the small growth of consumer prices, **the real annual growth of net and gross wages was 10% and 10.7%, respectively**. In April 2020, the nominal annual growth of the average net wage was 4.2%, which is a significant slowdown in growth and an indication of the impact of the shock of the new viral infection on this labor market segment.



In terms of labor productivity, the annual decline that has been registered since the beginning of last year, continued in the first quarter of 2020. In conditions of stronger employment growth than value added growth, labor productivity³⁰ decreased by 2.1% (decline of 1.1% in the previous quarter). Observed by sectors, the decrease is largely due to lower productivity in industry and the services sector. The continued increase in wages, amid a simultaneous decline in productivity, contributed to further growth of unit labor costs, which in the first quarter was 12.8% (7.9% in the previous quarter). Thereby, most of the growth is explained by higher costs in the services sector, with lower growth of costs in industry, and minimal reduction of costs was observed in the sector "agriculture".



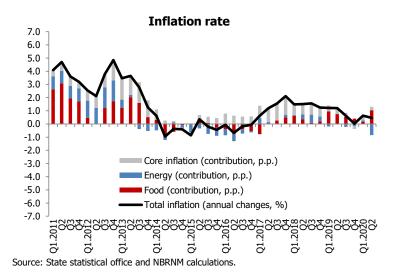
³⁰ Total labor productivity is a weighted sum of productivity of each sector. Sector productivity is the ratio of the sector's value added to the number of employees.

1.5. Inflation

The growth of domestic consumer prices in the second quarter of 2020 is 0.5%, which is a minimal slowdown in the annual inflation rate from the previous quarter, mainly caused by the energy component. Regarding the future short-term dynamics of consumer prices, shifts in imported inflation and domestic producer prices are moderate, while the growth in unit labor costs continues to accelerate. However, in conditions of a negative output gap and in the absence of significant pressures on domestic inflation through the channel of foreign prices and producer prices, higher labor costs should not cause upward pressures on the prices of final products. In terms of expectations for the inflation rate in the coming period, according to the National Bank Survey, economic analysts expect it to be 0.4% in 2020 and to moderately accelerate to 1.3% in 2021 and 1.6% in 2022. However, in conditions of a strong synchronized global shock with significant negative economic consequences and disturbances, on the both supply side and on demand side, the uncertainty about the future trend of prices in the domestic and foreign markets remains pronounced.

1.5.1. Current inflation

In the second quarter of 2020, the annual inflation rate was 0.5% (compared to 0.6% in the previous quarter)³¹. The minimal slowdown in the annual inflation rate is mainly due to the energy component, which declined in the second quarter, following the growth in the previous quarter. The basic component of inflation has an additional contribution to the slowdown, but to a lesser extent, which reflects the developments related to the spread of the viral infection in the second quarter of 2020 and the presence of restrictive measures, which caused lower spending, i.e. reduced demand. On the other hand, the growth of food prices is accelerating on an annual basis. In terms of structure, the annual price growth in the second quarter is explained by higher prices in food and basic components, while the energy component has a small negative contribution.



In the second quarter of the year, core inflation grew by 0.5% on annual basis (growth of 0.7% in the last quarter). The slowdown in the core inflation is due to the more moderate increase in

³¹ On a quarterly basis, domestic consumer prices increased by 0.8%, while on a seasonally adjusted basis they increased by 0.17%.

tobacco and car prices, as well as the decrease in footwear prices and the larger fall in air traffic prices, compared to the annual decrease in the previous quarter. From the aspect of the annual growth structure of the core inflation, the highest positive contribution have the prices of tobacco³², catering services, electrical appliances for personal hygiene and other appliances, as well as the cars prices³³. The other subindices of inflation, which exclude the most volatile prices, show growth similar to the previous quarter. Thus, the total index, excluding energy³⁴, liquid fuels and lubricants (for transport) and unprocessed food registered an annual growth of 1.7% (same as in the previous quarter), while the total index excluding energy, liquid fuels and lubricants (for transport), unprocessed food, tobacco and alcoholic beverages registered an annual growth of 1.5% (1.4% in the last quarter).

			(annual c		contributions to annual changes, in p.p.)											
	2018		2019)		2019	2020		2018		2019)		2019	2020	
		Q1	Q2	Q3	Q4		Q1	Q2		Q1	Q2	Q3	Q4		Q1	Q2 0.5
Consumer price index - all items	1.5	1.2	1.2	0.6	0.0	0.8	0.6	0.5	1.5	1.2	1.2	0.6	0.0	0.8	0.6	0.5
Food	0.9	2.7	2.1	1.5	1.2	1.9	0.5	2.9	0.3	1.0	0.7	0.5	0.4	0.7	0.2	1.0
Energy	2.6	-1.4	-0.2	-1.7	-1.2	-1.1	0.7	-6.4	0.3	-0.2	0.0	-0.2	-0.2	-0.2	0.1	-0.8
Electricity	-0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Heat energy	-2.7	-2.9	-2.9	-5.2	-6.4	-4.3	-6.4	-6.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Fuels and lubricants	10.7	-4.5	0.1	-5.1	-3.3	-3.2	3.4	-22.8	0.4	-0.2	0.0	-0.2	-0.1	-0.1	0.1	-0.8
Food and energy (volatile prices)	1.4	1.6	1.5	0.6	0.5	1.0	0.6	0.4	0.7	0.8	0.7	0.3	0.2	0.5	0.3	0.2
Core inflation calculated by the NBRM (total index food and energy (categories 01.1, 04.5, 07.2.2))	1.5	0.9	1.0	0.6	-0.4	0.5	0.7	0.5	0.8	0.4	0.5	0.3	-0.2	0.3	0.4	0.3
Overall index excluding energy, liquid fuels and lubricants and unprocessed food (SSO)	1.0	0.6	0.9	1.1	0.6	0.8	1.7	1.7								
Overall index excluding energy, liquid fuels and lubricants, unprocessed food, tobacco and alcoholic beverages (SSO)	0.7	0.3	0.5	0.9	0.3	0.5	1.4	1.5								

Source: State Statistical Office and NBRNM calculations.

In the second quarter of 2020, **the food prices** registered an accelerated annual growth of 2.9% (compared to 0.5% in the previous quarter), which is mainly due to the smaller decline in vegetable prices driven by the June performance, and to a lesser extent, to higher growth in fruit prices. In terms of structure, the annual growth in food prices mainly arises from the prices of fruit, bread and wheat, as well as meat prices, with slightly lower contribution accounting to the prices of milk, cheese and eggs, as well as oil and fats. In the second quarter³⁵, the selling prices of domestic food producers also increased (although with a slight slowdown compared to the previous quarter), while foreign effective prices registered a slight acceleration compared to the previous quarter. Namely, **energy prices** registered annual drop, which reflects the movement of domestic prices of oil derivatives. Namely, despite the increased price of excise duty on unleaded gasoline, diesel fuel and heating fuel by three denars at the end of April³⁶, domestic prices of oil derivatives remained lower compared to the same period last year and followed the movement of the brent oil price on world stock markets, which fell sharply due to lower global demand for oil caused by the spread of the new coronavirus. Central heating prices also had a minimal negative contribution to the decline of the energy component of inflation³⁷. Adequately to this price shifts, the decrease is also registered in the selling prices of energy producers (which refer only to electricity)³⁸.

³²The annual growth of tobacco price in the second quarter also reflects the increase in the prices of cigarettes in May 2019 and March 2020, in consistence with the annual planned increase in excise duties on cigarettes by Denar 0.20 per piece as of 1 July 2023.

³³On 1 January 2020, the Law on Motor Vehicle Tax (Official Gazette of the Republic of North Macedonia No. 261/2019) came into effect, which abolished the current excise duty in case of import of motor vehicles and replaced it with motor vehicle tax. One of the major changes with the new law is the introduction of taxation according to the amount of the average emission of carbon dioxide.

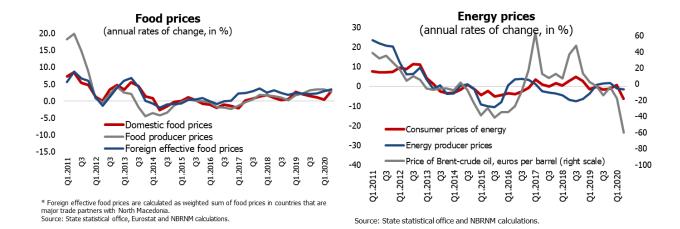
³⁴The category "energy" refers to electricity, gas, liquid and solid fuels for heating and central heating.

³⁵The analysis of selling prices of domestic food producers and foreign effective food prices refers to April and May.

³⁶This measure of the Government was adopted to mitigate the economic consequences of the increased costs of dealing with the coronavirus and providing funds for regular servicing of budget needs. The proposed mechanism enables gradual return of the existing amounts of excises in conditions of normalization of market prices.

³⁷According to the decision of the Energy Regulatory Commission, the price of heating in the BEG system as the largest supplier of heat in Skopje is reduced by 6% from August 2019, as a result of the previous decision to reduce VAT on heat from 18 to 5 %.

³⁸The analysis of oil prices and selling prices of energy producers refers to April and May.

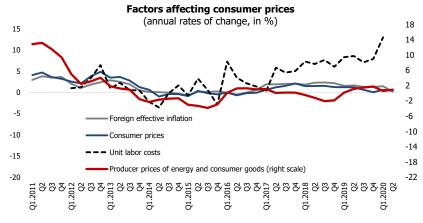


Producer prices of industrial products registered moderate annual growth of 0.4%, the same as in the previous quarter. Also, **producer prices of energy and consumer goods**, as one of the factors influencing the dynamics of consumer prices, on average recorded an annual growth of 0.9% (compared to 0.6% in the previous)³⁹. Foreign effective inflation, as an indicator of imported inflation, in the second quarter registered a more pronounced slowdown in growth (annual growth of 0.2% compared to growth of 1.5% in the last quarter). On the other hand, unit labor costs are growing rapidly during the first quarter of 2020, at an annual rate of 12.8%, compared to the growth of 7.9% in the fourth quarter of 2019. **Foreign effective inflation**⁴⁰, as an indicator of imported inflation, in the second quarter registered a more pronounced slowdown in growth (annual growth of 0.2% compared to growth of 1.5% in the last quarter). On the other hand, **unit labor costs** are growing rapidly during the first quarter of 2020, at an annual rate of 12.8%, compared to the growth of 7.9% in the fourth quarter of 2019. However, given the negative output gap⁴¹ in the domestic economy and the significant slowdown in wage growth in March and April, as well as the absence of significant pressures on domestic inflation through the channel of foreign prices and producer prices, higher labor costs are not expected to cause greater upward pressures on the prices of final products in the future.

³⁹The analysis of producer prices of industrial products and producer prices of energy and consumer goods refers to the first two months of the second quarter of 2020.

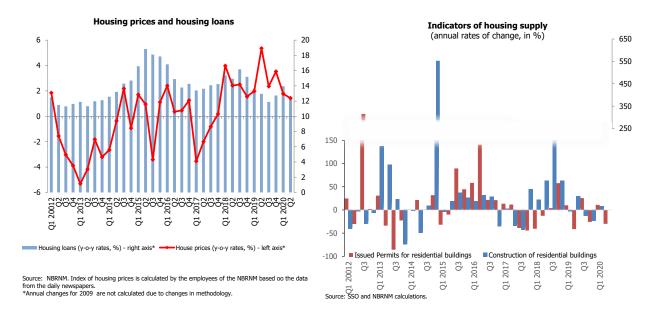
⁴⁰ The calculation of foreign effective inflation derives from the weighted sum of consumer price indices of the countries that are major partners of the Republic of North Macedonia in the field of import of consumer goods. The weight structure is based on the normalized shares of nominal imports from each country in the total nominal imports in the period 2010-2012. The calculation of this indicator includes Bulgaria, Germany, Greece, France, Italy, Austria, Slovenia, Croatia and Serbia. The analysis refers to the first two months of the quarter.

⁴¹ The National Bank assessments show that domestic production is below the potential level (negative output gap) throughout the period of forecast (until 2021).



Source: State statistical office and NBRNM calculations.

In the second quarter of 2020, apartment prices, as measured by the Hedonic index⁴² increase annually by 1.4% which is a small deceleration compared to the previous quarter. From the aspect of the supply in the second quarter of 2020, the value of the constructed residential buildings increased, while the value of the issued permits for construction of residential buildings decreased.⁴³ Analyzing the demand, also in the second quarter of 2020, it was supported by the two-digit rise in housing loans⁴⁴.



1.5.2. Inflation expectations

Regarding the trajectory of the future price movement, most of the domestic and international institutions expect low, even negative inflation rate in 2020 and gradual and moderate acceleration of the inflation rate in the next two years. Such expectations are largely a reflection of the expected decline in

⁴² Hedonic index of housing prices, prepared by the National Bank on the basis of the notices of sale in the capital city, and published by the agencies dealing with trade in real estate. The apartment price is a function arising from the size of the apartment, the neighborhood in which it is located, the floor, whether the apartment has central heating and whether the apartment is new.

⁴³The analysis refers to the first month of the second quarter of 2020.

⁴⁴ Available data for the first two months of the quarter.

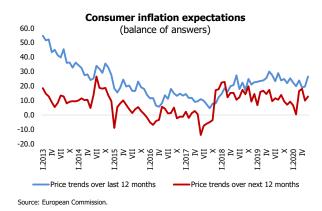
economic activity, both globally and in the domestic economy and the expectations for a gradual recovery in the coming period. According to from the June **Survey on Inflation and Real GDP Expectations**⁴⁵, in 2020, inflation is expected to be 0.4%. During the next two years, according to economic analysts, the inflation rate will gradually accelerate to 1.3% in 2021 and 1.6% in 2022.

Forecasts and expectations for the inflation rate

	2020	2021	2022
Economic analysts	0,4	1,3	1,6
IMF	-0,9	0,8	/
Consensus Forecast	0,2	1,7	/
Ministry of Finance	-0,2	/	/
NBRNM	0,0	1,5	2,0

SSource: Inflation and real GDP growth expectations survey, June 2020; IMF World Economic Outlook, April 2020; Consensus Forecast, June 2020; Ministry of Finance, Indicators and Projections, May 2020; and NBRNM, April 2020.

Similar are the short-term expectations of consumers and company managers for price movements presented in the survey conducted in the second quarter (as of June 2020). Thus, according to the "consumer expectations for price changes in the next 12 months" most people believe that in the next 12 months the pieces will grow, as opposed to the number of people expecting a reduction or unchanged prices, with the end of the quarter expectations for price growth are becoming more moderate. In terms of corporate sector expectations, managers in trade and construction expect prices to rise in the next three months, but more moderately than in the previous quarter, while the managers in industry and services sector expect prices to fall in the coming period.





1.6. Balance of payments

In the first quarter of 2020, the current account deficit on the balance of payments remained almost unchanged on an annual basis. Within the foreign trade, the trade deficit deepened, which was partially offset by the higher surplus in services. In March, the negative impact of the spread of COVID-19 virus on trade was felt, which is expected to be most pronounced in the next quarter. The primary income deficit decreased slightly compared to the first quarter of last year, while the

⁴⁵Starting from October 2017, the National Bank changed the current Inflation Expectations Survey. The new Survey on Inflation Expectations and Expectations for the Movement of the Real GDP is conducted on a sample of economic analysts, and the subject of the Survey has also been expanded, according to the practice of the European Central Bank (ECB).

⁴⁶European Commission's Consumer Survey as of June 2020.

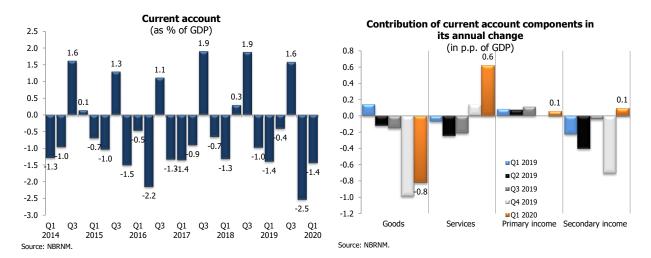
⁴⁷ European Commission's business tendency surveys in industry, retail trade, construction and services sector as of June 2020.

secondary income surplus did not change significantly. In the financial account, during the first quarter, net outflows were realized, which mostly result from the debt repayment by the Government to external creditors, as well as from the outflows on the basis of currencies and deposits and portfolio investments, given the simultaneous solid net inflows on the basis of of direct investment.

	20	018			2019			2020	20	18						2020
	Кв.1	I-XII	Кв.1	Кв.2	Кв.3	Кв.4	I-XII	Кв.1	Кв.1	І-ХП	Кв.1	Кв.2	Кв.3	Кв.4	I-XII	Кв.1
I. Current account	-141.0	-14.9	-158.1	-47.0	178.5	-286.9	-313.5	-157.0	-1.3	-0.1	-1.4	-0.4	1.6	-2.5	-2.8	-1.4
Goods and services	-359.2	-1372.7	-373.2	-344.8	-262.1	-646.7	-1626.8	-381.6	-3.4	-12.8	-3.3	-3.0	-2.3	-5.7	-14.3	-3.5
Credit	1407.4	6452.5	1623.4	1700.3	1848.0	1779.4	6951.1	1515.9	13.2	60.3	14.3	15.0	16.3	15.7	61.3	13.9
Debit	1766.6	7825.2	1996.7	2045.1	2110.0	2426.1	8577.9	1897.5	16.5	73.1	17.6	18.0	18.6	21.4	75.6	17.4
Goods	-462.8	-1734.9	-475.1	-441.4	-436.3	-613.7	-1966.5	-547.7	-4.3	-16.2	-4.2	-3.9	-3.8	-5.4	-17.3	-5.0
Services	103.6	362.2	101.8	96.6	174.2	-33.0	339.7	166.2	1.0	3.4	0.9	0.9	1.5	-0.3	3.0	1.5
Primary income	-113.8	-450.7	-111.5	-109.9	-112.3	-114.6	-448.3	-101.1	-1.1	-4.2	-1.0	-1.0	-1.0	-1.0	-4.0	-0.9
Secondary income	332.0	1808.5	326.6	407.7	552.8	474.4	1761.6	325.7	3.1	16.9	2.9	3.6	4.9	4.2	15.5	3.0
II. Capital account	1.2	11.6	0.6	0.1	5.9	-1.9	4.8	1.3	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0
Net lending (+) / net borrowing (-) (balance from current and capital account)	-139.7	-3.3	-157.5	-46.9	184.4	-288.7	-308.8	-155.7	-1.3	0.0	-1.4	-0.4	1.6	-2.5	-2.7	-1.4
III. Financial account	-415.0	-545.2	-153.6	-83.1	31.4	-410.5	-615.8	76.6	-3.9	-5.1	-1.4	-0.7	0.3	-3.6	-5.4	0.7
Direct investment	-233.5	-603.7	-40.2	-11.0	-62.9	-176.5	-290.6	-132.7	-2.2	-5.6	-0.4	-0.1	-0.6	-1.6	-2.6	-1.2
Portfolio investment	-368.6	-320.3	22.3	19.8	72.3	36.3	150.6	31.6	-3.4	-3.0	0.2	0.2	0.6	0.3	1.3	0.3
Currency and deposits	80.0	285.6	35.0	-30.6	98.5	-28.7	74.2	112.6	0.7	2.7	0.3	-0.3	0.9	-0.3	0.7	0.7
Loans	47.9	-7.2	-18.1	-26.5	-57.1	-129.8	-231.4	#REF!	0.4	-0.1	-0.2	-0.2	-0.5	-1.1	-2.0	1.0
Trade credit and advances	59.3	101.7	-152.7	-34.3	33.1	-164.4	-318.3	-6.9	0.6	1.0	-1.3	-0.3	0.3	-1.4	-2.8	-0.1
Other accounts receivable/payable	0.0	0.2	0.0	-0.3	-52.4	52.5	-0.2	0.0	0.0	0.0	0.0	0.0	-0.5	0.5	0.0	0.0
Special drawing rights (Net incurrence of liabilities)	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
IV. Net errors and omissions	-18.6	8.4	-1.6	13.2	21.4	34.6	67.6	-17.0	-0.2	0.1	0.0	0.1	0.2	0.3	0.6	-0.2
V.Reserve assets	256.6	550.3	-5.6	49.4	174.4	156.4	374.6	-249.3	2.4	5.1	0.0	0.4	1.5	1.4	3.3	-2.3

Source: NBRNM.

1.6.1. Current account



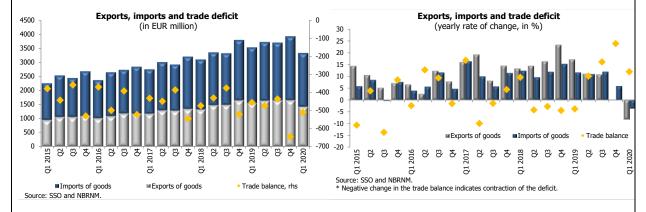
In the first quarter of 2020, the current account deficit was Euro 157 million or 1.4% of GDP⁴⁸, which is almost identical to the one registered in the same quarter of the previous year. The analysis of the individual components indicates a slightly higher deficit in the trade of goods and services abroad (by 0.2 percentage points of GDP). Thereby, the trade deficit registered annual deterioration (of 0.8 percentage points of GDP), in conditions of more intensive decrease in exports compared to the decrease in the import component. This deepening was largely neutralized by a better

⁴⁸ The calculations use the projected amount of the nominal GDP (from April 2020).

trade surplus (by 0.6 percentage points of GDP). The higher annual surplus in services results from the improved balance in construction services and other business services (due to lower outflows on the same basis) and the increased surplus in computer services (in conditions of higher export of these services). The primary income deficit is slightly lower on an annual basis, mainly due to lower outflows on the basis of investment income. The primary income surplus register no major changes compared to the previous quarter.

Annex: Foreign trade of goods and movement of the Nominal and the Real Effective Exchange Rate (NEER and REER)⁴⁹

In the first three months of 2020 the foreign trade amounted to Euro 3,326.5 million or 30.4% of GDP, which compared to the same quarter of the previous year is a decrease of 5.6% or 0.6 percentage points of the GDP. Decrease in the foreign trade has been registered for the first time in the past seven years and it is driven by the decline of both the export and import component on an annual basis, especially in March when the consequences of the pandemic caused by COVID-19 virus became more intensive. The high transmission rate of the virus, since its appearance in China in January 2020, has soon caused a global pandemic spreading it to all continents, which resulted in closure of borders, as well as measures to limit the movement of population. This state of emergency with the world, as well as in the domestic economy, had an adverse effect on foreign trade relations.

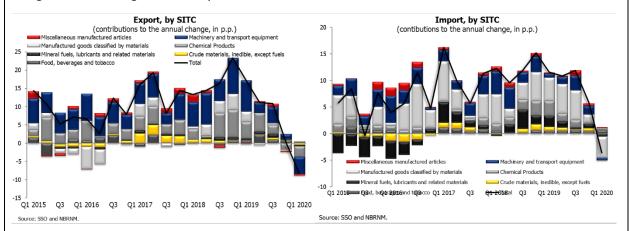


Data pertaining to the first quarter of 2020 indicate a decline in export of goods by 8.2%, driven by a more intense fall in exports in March. The decrease was largely caused by the export of new facilities in the economy, many of them belonging to the car industry, a sector significantly affected by the negative effects of the pandemic, where some of the facilities were temporarily closed from the second half of March. The contribution of other categories to the decrease in exports is significantly lower and is distributed among the export of clothing and footwear, energy exports, export of iron and steel and ores. Compared to the same quarter of the previous year, positive trends were realized in the export of textile yarns, food and tobacco. The import component of the foreign trade also contracted on annual basis, although the decrease in the first quarter of 3.6% was more moderate compared to the decrease in exports. The decrease in imports is driven by lower raw material imports, as well as lower energy imports in the first quarter. The highest contribution to the decrease was made by raw materials imports of new export-oriented facilities, which on the one hand is a reflection of lower global demand for cars and correspondingly, lower exports in this period, as well as of disrupted supply chains due to the closure of part of the Chinese economy since the beginning of the year due to the spread of COVID-19 virus. Additionally, there is a more significant downward correction in the import of iron and steel, due to the lower imported quantities, although a moderate decline was observed in the imported prices. In the field of energy import, the driving factor

⁴⁹ According to the Foreign Trade Methodology, data on the export of goods are published on an f.o.b. basis, and on the import of goods, on a c.i.f. basis.

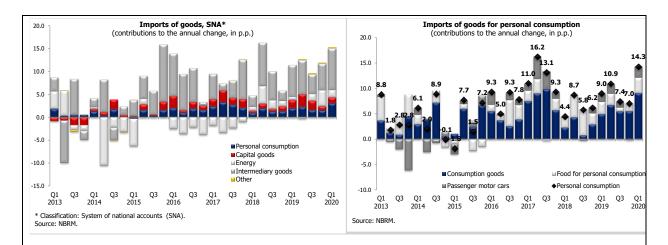
for the annual decrease is the drastic reduction of the oil price on the world stock exchanges⁵⁰ in the first quarter of the year, which accordingly led to a decrease in the import price of oil derivatives in this period, given higher quantities of imports of this fuel. On the other hand, the increased needs of the health system due to the virus increased the import of medical and pharmaceutical products in this period, with higher import of food being also realized. Such performances in both foreign trade components in the first quarter of 2020 caused a widening of the trade deficit by 11.9% on an annual basis. Analyzed by individual balances, the deepening is due to the non-energy balance, given favorable changes in the energy balance compared to the same period last year.

The latest available data on foreign trade for April and May 2020 indicate a deepening of the decrease in export activity on an annual basis, with simultaneous contraction of the import side. The export of goods in April and May registered an annual fall of 49.5%, due to the decrease of all export categories, with the largest contribution being made by the decline in exports of new companies in foreign ownership, because of which part of the facilities were temporarily closed during April, as well The decrease on the import side was 43.9% compared to the same period last year, mostly due to the categories "products classified by materials" and "equipment and machinery", with other import categories also acting towards imports reduction.



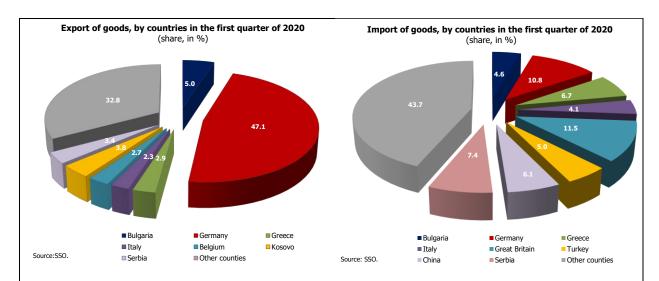
According to the analysis of the import of goods in terms of division according to the System of National Accounts (SNA), the decrease in imports in the first quarter of 2020 is mostly driven by the import of intermediate goods, while the negative contribution of capital goods and energy towards the total decrease is significantly more moderate. The only import component acting towards growth is the import intended for private consumption. The detailed analysis of this component indicates that the annual growth reflects the higher import of consumer goods and to a lesser extent the import of food for private consumption, with a negative contribution to the import of vehicles. By dynamics, the growth of imports for private consumption in the first quarter of the year accelerated compared to the previous quarter, but it does not indicate significant pressures on total imports, especially given that part of the growth is driven by import of pharmaceutical products, to meet the increased needs for these products due to the pandemic.

 $^{^{50}}$ In the first quarter of 2020, the price of oil on world stock markets decreased by more than 20% on an annual basis, with the decrease being 50% in March itself.

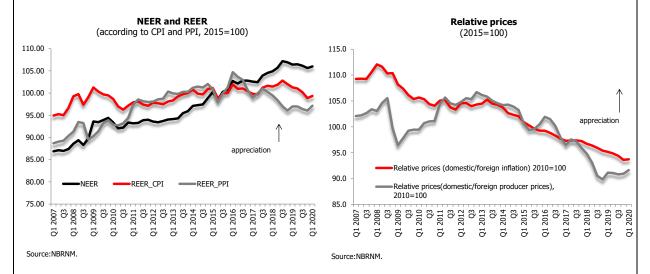


The analysis of foreign trade by trading partners in the first quarter of 2020 indicates that the European Union remained dominant in the total foreign trade, with a share of 69.6% in this quarter⁵¹. As for individual trade partners on the export side, the annual change is driven by the decrease in exports to Germany, as a result of lower export of chemical products and equipment and machinery, the main export products of new facilities included in the German production chain. The crisis in the car industry was evident at the end of 2019, but the situation in this industry worldwide has significantly deteriorated with the spread of the virus and the corresponding negative effects were spilled on the companies in the domestic economy whose activity is within this industry and which are fully export-oriented. The same factors affected the lower exports to Belgium and Romania in this period, while the decrease in exports to Italy was driven by lower export of iron and steel for the most part. Outside the EU countries, significantly lower exports were recorded to Kosovo, due to lower energy export. It is interesting to note that exports to the Netherlands increased in this period, mainly due to higher export of iron and steel, when some domestic companies shifted the exports from China to this European economy. The analysis of the *import* side indicates that the decrease in the import of iron and steel from Ukraine has the largest contribution to the decline in imports, followed by lower import of precious metals from Italy, as well as lower energy import from Greece and lower import of machinery and cars from Germany. On the other hand, higher imports were realized from the USA, due to the import of precious metals and pharmaceutical products, as well as from Serbia, due to the growth of imported energy. In terms of trade balances with individual trading partners, the deepening of the trade deficit on an annual basis is due in large part to the lower trade surplus with Germany in the first quarter of the year compared to the surplus in the same period last year. The higher deficit with the United States and Serbia also acted significantly towards widening of the negative trade balance. On the other hand, the reduced import demand caused an improvement in the trade balance with Ukraine and Greece, while the better export performance to the Netherlands led to a trade surplus, compared to the deficit from the same period last year.

⁵¹⁵¹ The UK is included within the EU countries. Despite the exit of this country from the European Union on 1 January 2020, in this transitional period they remain part of the EU customs union and accordingly the same trade rules between our economy and this country remain valid. Accordingly, for analytical reasons, we are analyzing the UK in this transitional period within the EU.



The price competitiveness indicators of the Macedonian economy in the first quarter of 2020 registered divergent changes compared to the same period last year. More precisely, the CPI-deflated REER depreciated by 1.9% annually, while the CPI-deflated REER registered an insignificant annual appreciation of 0.1%. Such movements are a reflection of the performances with relative prices, where the relative consumer prices decreased on annual basis (by 1.5%), while the relative producer prices of industrial products increased (by 0.6%). The nominal effective exchange rate index depreciated slightly by 0.4% compared to the same period last year, as a result of the appreciation of the Russian ruble, the Ukrainian hryvnia and the US dollar against the denar.

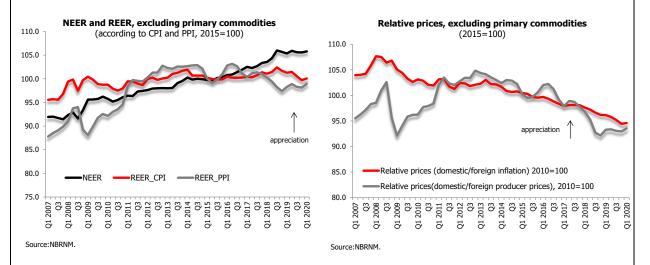


The analysis of REER indices, as measured by using weights based on the foreign trade without primary commodities⁵² also points to divergent changes in both indices. Namely, the REER deflated by the consumer prices registered a depreciation of 1.2% on annual basis, while the REER calculated according to the producer prices of industrial products appreciated by 0.7% compared to the same period of the previous year. Thereby, the NEER index registered a small appreciation of 0.4% on annual basis, while the relative consumer prices decreased (by 1.6%), and the relative prices of industrial

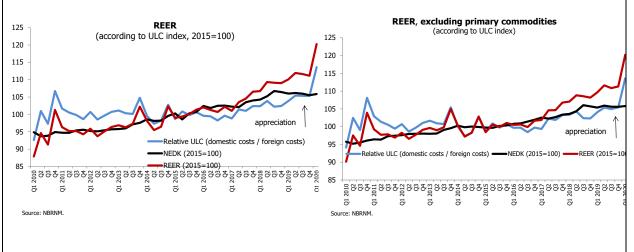
⁵² Primary products not included in the calculation are: oil and oil derivatives, iron and steel, ores and imported raw materials for the new industrial facilities. For more detailed information on the methodology for calculating the real effective exchange rate visit: http://nbrm.mk/WBStorage/Files/Statistika REDK Informacija za promenite na metodologijata za presmetuvanje na realnio t efektiven devizen kurs na denarot mak.pdf

products registered annual growth (by 0.2%). The appreciation of the nominal effective exchange rate is mostly due to the depreciation of the Turkish lira against the denar.

The latest data on price competitiveness for April and May 2020 indicate divergent movements in the index calculated by weights with total foreign trade. The CPI-deflated REER depreciated slightly by 0.2% annually, while the CPI-deflated REER appreciated by 6.3%. Divergent movements were also realized in the index calculated with weights based on foreign trade statistics without primary commodities, namely depreciation in the index deflated by the consumer prices of 0.6% on an annual basis and appreciation in the REER calculated according to the producer costs of 4 industrial products of 4.7%.

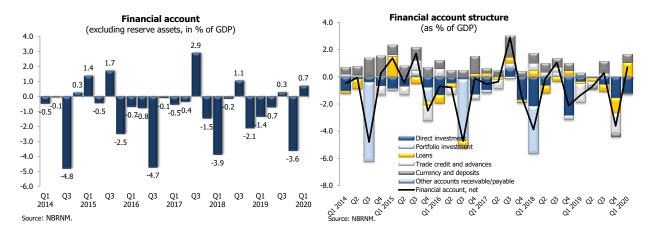


In the first quarter of 2020, the analysis of REER indices calculated using unit labor costs indicates appreciation. Thereby, the REER calculated by the weights based on the total foreign trade appreciated by 9.2%, a change driven by the growth of relative prices (by 9.4%), amid a small depreciation of the NEER of 0.1% on annual basis. Annual appreciation was registered in the REER index calculated by using weights based on the foreign trade without primary commodities of 9.6%, determined by the growth of the relative labor costs (of 9.2%) amid mild NEER appreciation (of 0.4%).



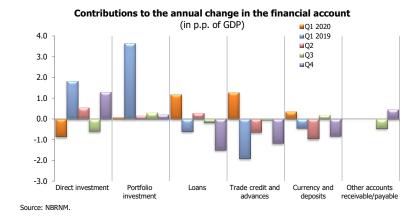
1.6.2. Financial account

The financial account in the balance of payments recorded net outflows of Euro 76.6 million in the first quarter of 2020, or 0.7% of GDP. Thereby, net outflows were registered in the categories of loans, currencies and deposits and portfolio investments, while solid net inflows were registered in direct investments. The developments in the loans mostly refer to the debt repayment of the Government to the foreign creditors⁵³ on the basis of long-term loans, and in conditions of moderate net foreign borrowing of the non-banking and private banking sector. Net outflows registered in the category of currencies and deposits are entirely due to the behavior of other sectors in the economy (mainly households), amid decrease in the foreign currency assets of banks on foreign accounts. In portfolio investments, net outflows are mostly a result of increased net assets in other sectors (mainly OFI sector investments abroad). The positive developments in direct investments are a result of the net inflows on the basis of all three components, where the estimated reinvested profit had the largest contribution.

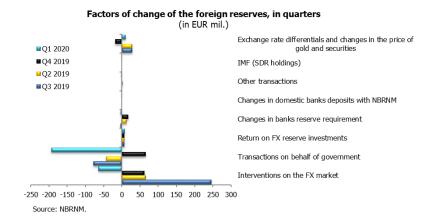


The analysis of the annual changes indicates deterioration of the financial flows, i.e. net outflows were realized, as opposed to the realized net inflows in the first quarter of 2019. Thus, net outflows were registered in loans, due to repayment of a significant amount of long-term government credit to a foreign creditor, compared to net borrowings from the same period last year, in trade loans flows show lower net inflows, while currencies and deposits registered higher net outflows on an annual basis. On the other hand, positive annual changes were registered in the inflows from direct investments, entirely due to the realized net inflows on the basis of debt instruments (intercompany debt), unlike the first quarter of 2019 when this category recorded high net outflows.

⁵³ In January 2020, a loan in the amount of Euro 158.1 million was repaid to Deutsche Bank.

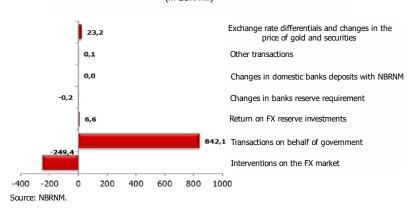


At the end of the first quarter of 2020, gross foreign reserves totaled Euro 3,017.3 million. Transactions on behalf of the Government (regular servicing of liabilities to external creditors), and to a lesser extent the interventions of the National Bank with net sale of foreign currency on the foreign exchange market during the first quarter, acted towards foreign reserves reduction. The remaining categories made a moderate contribution to the growth of foreign reserves in this period.



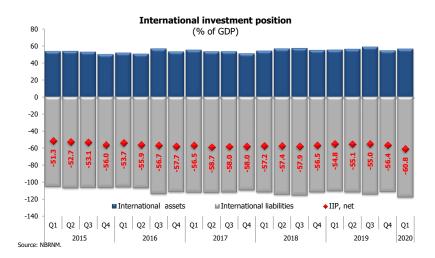
As of the end of the second quarter of 2020, gross foreign reserves stood at Euro 3,639.7 million, which is an increase of Euro 622.4 million compared to the end of the first quarter of 2020. The main factor for such change are the transactions on behalf of the government (inflow from an IMF loan and a Eurobond issue). The National Bank interventions on the foreign exchange market acted in the opposite direction. The remaining flows had a moderate impact on the shifts in foreign reserves in the analyzed period.

Factors of change of the foreign reserves in the second quarter of 2020 (in EUR mil)



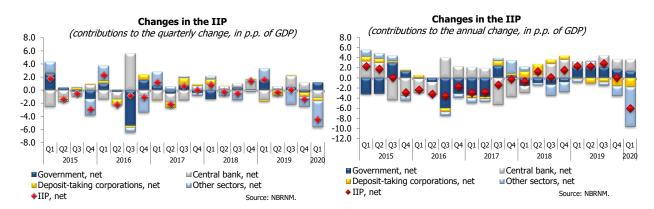
1.6.3. International investment position and gross external debt

The international investment position of the Macedonian economy remains negative and at the end of the first quarter of 2020 amounted to Euro 6,650.1 million, or 60.8% of GDP. Compared to the end of 2019, the international investment position increased by 4.5 percentage points of GDP, in conditions of higher growth of international liabilities in relation to the growth of international assets. From the aspect of sectors, the quarterly change mainly results from the growth of net liabilities in other sectors of the economy (increase in liabilities to direct investors), then lower net assets in the central bank (lower reserves) and slightly higher net liabilities with the banking sector. On the other hand, the country recorded a decrease in net liabilities, amid a decline in loan-based liabilities due to debt repayment to Deutsche Bank in January 2020 and to a lesser extent, to the investment of the banking sector in Eurobonds issued by the Government.

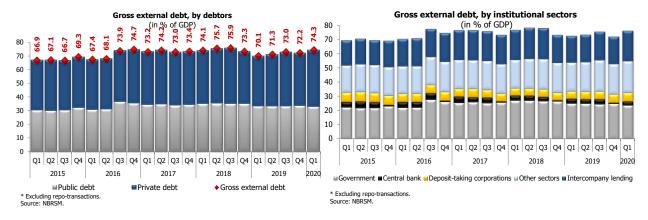


On annual basis, the international investment position also increased (by 6 percentage points of GDP), again in conditions of higher growth of international liabilities in relation to the growth of international assets (by 7.2 percentage points and 1.2 percentage points of GDP, respectively). The sector analysis indicates that this change mostly arises from the increased net liabilities in other sectors of the economy (higher net liabilities to direct investors, increased net loan liabilities and reduced net assets from trade credits), and then from the net position of depository corporations (lower net assets in currencies and deposits). At the same time, these movements were partially neutralized by the favorable shifts in the net

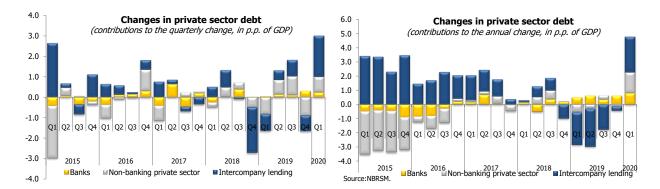
position of the Government (mainly reflecting the lower liabilities abroad on the basis of debt securities, i.e. banks' investment in domestic Eurobonds) and the net position in the central bank (as as a result of the increase in foreign reserves).



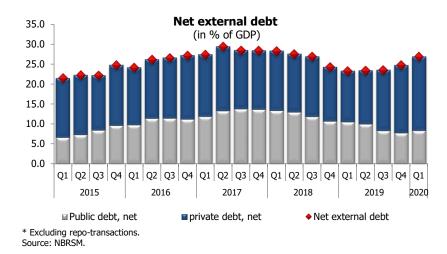
At the end of the first quarter of 2020, the gross external debt stood at Euro 8,338.9 million, or 76.3% of GDP, which is a quarterly increase of 4.1 percentage points of GDP. Excluding the effect of repo transactions of the National Bank, gross external debt increased by 2.1 percentage points of GDP. Higher gross external debt is entirely due to the increase in private sector debt, amid a small decline in public sector debt. The quarterly increase of the private debt results from the growth of the intercompany debt and to a lesser extent, from the growth of the liabilities of the non-banking private sector and the banking sector. In public debt, the change mainly stems from lower central government liabilities, given repayment of the long-term loans and investment of domestic banks in government debt securities.



On annual basis, gross external debt increased by 4.2 percentage points of GDP, which in conditions of small decline in public debt (0.5 percentage points of GDP), is entirely due to the annual growth of debt to the private sector (by 4.8 percentage points of GDP). The annual growth of private debt is mostly due to the higher intercompany debt, then the higher debt of the non-banking private sector (increased liabilities based on long-term and short-term loans), and to a lesser extent, the increased debt of the banking sector (higher long-term liabilities based on loans and increased short-term liabilities from currencies and deposits). The decrease in public sector indebtedness is mostly due to the smaller government liabilities based on debt securities and long-term loans, while larger liabilities based on long-term loans to public enterprises acted in the opposite direction.



At the end of March 2020, the net external debt stood at Euro 2,938.3 million, or 26.9% of GDP, which is a quarterly increase of 2.1 percentage points of GDP. The higher net external debt is mainly due to the higher net debt of the private sector (by 1.5 percentage points of GDP), amid a slight decline in public net debt (by 0.6 percentage points of GDP).



External indebtedness indicators of the national economy remain in the safe zone. The indicator of the share of gross external debt in GDP has slightly improved, but still classifies the economy in the group of highly indebted countries. All other indicators of solvency and liquidity show low indebtedness of the country, with a slight deterioration in most of the indicators.

		Solvei	псу			Liquidity	
Indicators for external indebtness	and services and services and other other inflows inflows		port of goods of goods and Gross debt/ Export of goods and services and other GDP services and other				Short-term debt/ Overall debt
		in %	Ó		ratio	ratio	in %
31.12.2010	3.2	140.4	59.7	13.9	1.5	1.0	27.9
31.12.2011	3.1	148.4	64.6	16.8	1.8	1.2	25.2
31.12.2012	2.9	142.1	67.6	13.1	1.6	1.0	26.7
31.12.2013	2.5	137.3	67.3	15.8	1.6	1.1	23.3
31.12.2014	3.0	149.1	74.0	17.2	1.8	1.1	22.3
31.12.2015	2.7	143.9	73.2	20.0	1.7	1.1	21.3
31.12.2016	2.4	149.39	79.33	14.89	1.7	1.2	21.93
31.03.2017	2.7	138.68	76.61	12.72	1.5	1.0	23.53
30.06.2017	2.7	140.69	77.72	12.72	1.3	0.9	24.19
30.09.2017	2.7	138.24	76.37	12.72	1.3	0.9	24.57
31.12.2017	2.7	139.17	76.88	12.72	1.3	0.9	23.94
31.03.2018	2.2	132.80	78.27	15.77	1.3	0.9	25.06
30.06.2018	2.2	135.55	79.89	15.77	1.3	1.0	25.61
30.09.2018	2.2	135.98	80.14	15.77	1.3	1.0	25.59
31.12.2018	2.2	131.37	77.42	15.77	1.4	1.0	25.75
31.03.2019	2.1	119.55	74.37	8.89	1.4	1.0	25.81
30.06.2019	2.1	121.51	75.59	8.89	1.4	1.0	26.39
30.09.2019	2.1	124.39	77.38	8.89	1.4	1.0	27.62
31.12.2019	2.1	123.15	76.61	8.89	1.6	1.0	25.52
31.03.2020	2.5	121.76	73.94	16.79	1.4	1.0	26.63
Moderate indebtedness criterion*	12 - 20%	<i>165 - 275%</i>	30 - 50%	18 - 30%		1.00	

^{*}The moderate indebtedness criterion is according to the World bank's methodology of calculationg indebtedness indicators, which implies 3-year moving averages of GDP and exports of goods and services in the calculation of the indicators.

II. Monetary policy

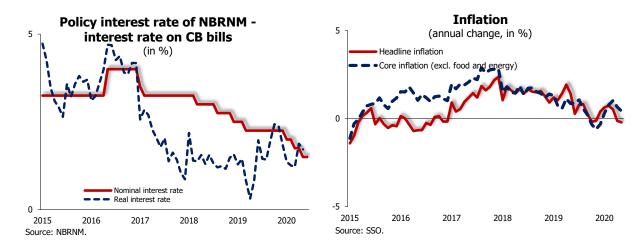
During the second quarter of the year, the National Bank lowered the key interest rate, reducing it to a historically lowest level of 1.5%, given simultaneous reduction of the bid amount of CB bills. The changes were aimed at mitigating the effects on the domestic economy from the spread of the COVID-19 virus and the measures taken to deal with it, contributing to further increase in the liquidity of the banking system and supporting credit flows in the economy. The easing of monetary policy has been made at a solid level of foreign reserves and in the absence of inflationary pressures. The National Bank will continue to carefully monitor the indicators and potential risks of the domestic and external environment, in order to adequately adjust the monetary policy setup.

During the second quarter of 2020, the National Bank continued easing the monetary policy. The key interest rate was reduced by 0.25 percentage points, i.e. from 1.75% to 1.5%,

In compliance with "External debt statistics: Guide for compilers and users," published by the IMF.

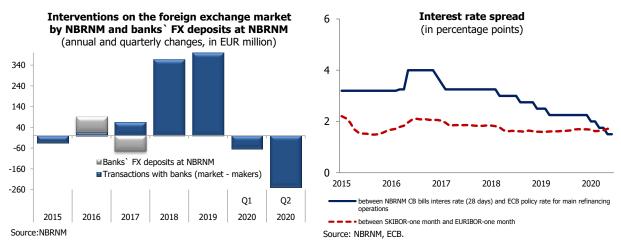
^{*}According to the "Greenspan-Guidotti rule", a country should maintain full coverage of short-term debt at remaining maturity with gross foreign reserves. Short-term debt at remaining maturity is calculated by addition of the long-term external debt (original maturity), with final contractually scheduled payment of less than a year, to the short-term debt (original maturity).

while reducing the bid amount of CB bills by Denar 15,000 million.⁵⁴ Further monetary easing was made in conditions imposed by the COVID-19 pandemic and measures to prevent the spread of the virus, which adversely affect the global and domestic economies, and at a solid level of foreign exchange reserves and the absence of inflationary pressures. The weakening of the monetary policy in this period contributed to further increase of the liquidity in the banking system, which the banks can appropriately use to increase the credit activity and mitigate the effects of the negative shock on the domestic economy.



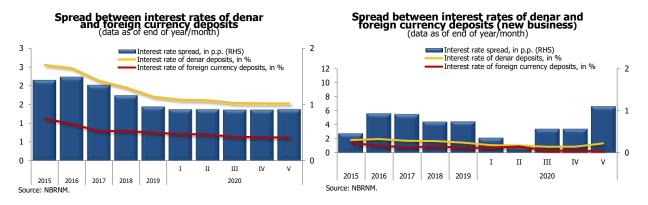
The performance of the basic macroeconomic indicators in the domestic economy pointed to certain deviations from the April forecast cycle. Regarding the inflation movements, the average annual growth rate of consumer prices in the period April-May was negative and amounted to 0.2%, with the estimates corresponding to the forecast for the second guarter. However, uncertainty about the future movement of world primary commodity prices related to the coronavirus and the duration of the pandemic remained. In terms of economic activity, according to the published GDP data for the first guarter, the annual growth reduced to only 0.2% (compared to the growth of 3.4% in the last quarter of 2019), a performance that is weaker than the expected growth dynamics for the first quarter in accordance with the April forecast. Developments related to the emergence of COVID-19 on a global scale have contributed to deterioration of business activity, visible in most economic activities. The available high-frequency data for the second guarter of 2020 we limited to fully grasp the situation, with the industry, trade and construction data indicating further negative effects of the health crisis on the economic activity. The level of foreign reserves remained in the safe zone, and the performance during the second quarter was in line with expectations. Analyzing total deposits and total loans, the May data show further annual growth, as forecasted for the second quarter of the year.

⁵⁴ At the regular monthly meeting of COMP held on 13 May, it was decided to reduce the key interest rate by 0.25 percentage points i.e. from 1.75% to 1.5%. At this session, a decision was made to further reduce the supply of CB bills by Denar 7,000 million, which followed the decision of 13 April to reduce the supply of CB bills by Denar 8,000 million. Consequently, in this period, the supply of CB bills decreased by a total of Denar 15,000 million, which would provide further support to the Macedonian economy and maintenance of credit flows. At the session, additional measures were adopted by the National Bank in order to ensure greater access of banks to liquidity, if they need in the coming period. For more information on the meetings of the National Bank OMPC and measures introduced, see the National Bank website.



Regarding the external environment, the ECB continued with monetary policy easing, making additional decisions to create additional liquidity in the system and support lending, in order to reduce the negative effects on economic growth, while keeping the interest rate unchanged. Having the key interest rate of the National Bank reduced and interest rate of the ECB⁵⁵ unchanged in the second quarter of 2020, the spread between these interest rates narrowed compared to the previous quarter. Regarding the indicative market interest rates, one-month EURIBOR and one-month SKIBOR, the range between them moderately expanded at the end of the second quarter. The expansion during the second quarter results from the growth of the one-month SKIBOR, while one-month EURIBOR registered a slight decrease, compared to the previous quarter.

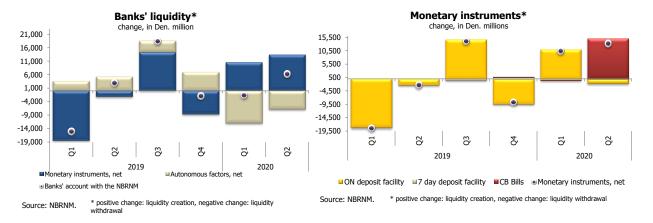
Interest rates on total deposits (denar and foreign currency) in the domestic economy registered no changes at the end of May compared to the previous month, so that the spread between these interest rates remained stable at 0.9 percentage points. In total newly accepted deposits, the interest rate spread widened (from 0.6 percentage points in March) to 1.1 percentage point , given the increase in the interest rate on denar deposits of 0.5 percentage points and minor decrease in the interest rate on foreign currency deposits of 0.05 percentage points.



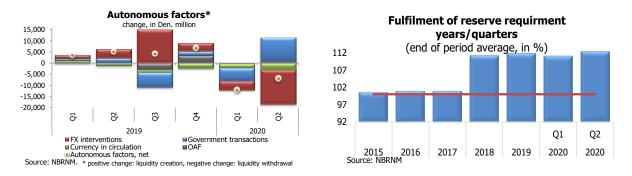
⁵⁵ Main refinancing operations rate.

2.1. Bank liquidity

In the second quarter of 2020, the denar liquidity of banks increased, which is entirely due to the change of monetary instruments on a net basis, i.e. the lower amount of funds placed in CB bills⁵⁶ by a total of Denar 15,000 million in line with the reduction of the bid amount. Available banks' deposits with the National Bank increased (by Denar 1,735 million) as a result of the increase in overnight deposits and 7-day deposits.



The autonomous factors, on a net basis in the second quarter, were in the direction of liquidity withdrawal in the amount of Denar 6,893 million. This change is entirely due to the interventions in the foreign exchange market and the increase of currency in circulation, while the government transactions influenced towards creating liquidity in the banking system.



Observed through the reserve requirement, in the second quarter of the year, the amount of funds the banks allocated on the accounts with the National Bank was higher than the determined amount of reserve requirement in denars, by an average of 12%.

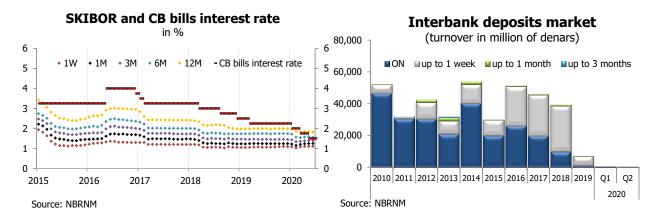
⁵⁶ During the quarter, three auctions of CB bills were held. At the CB bills auction held on 15 April 2020, Denar 17,000 million (or by Denar 8,000 million lower amount than the due amount) of CB bills was offered and sold at an interest rate of 1.75% and maturity of 28 days. At the CB bills auction of the National Bank held on 13 May 2020, Denar 10,000 million (or by Denar 7,000 million lower amount than the due amount) of CB bills was offered and sold at an interest rate of 1.5% and maturity of 35 days. At the CB bills auction of the National Bank held on 17 June 2020, Denar 10,000 million of CB bills was offered and sold at an interest rate of 1.5% and maturity of 29 days.

III. Financial market developments

In the second quarter of 2020, the interbank interest rate on the deposit market on average remained stable and low (by 1.1%), while the indicative interest rates on interbank deposit trading (SKIBOR) generally registered a slight upward shift. In the primary market of government securities, the new issues were mostly in shorter terms and in domestic currency, while in the secondary market only government bonds were traded. On the Macedonian Stock Exchange, despite the expectations for negative economic consequences from the rapid spread of the virus infection COVID-19, the value of MBI-10 increased slightly in the second quarter, registering an upward movements in the stock exchanges of the countries in the region, in conditions of gradual abolition of restrictive measures and initial signals of movements in the economies. In the international financial markets, the indices for volatility of the financial conditions decreased, indicating a possible stabilization of the uncertainty. Macedonian Eurobond yields quarter registered a growth, which caused a widening of the spread in terms of yields from the German government bonds, which remained relatively stable.

3.1. Interbank market for uncollateralized deposits

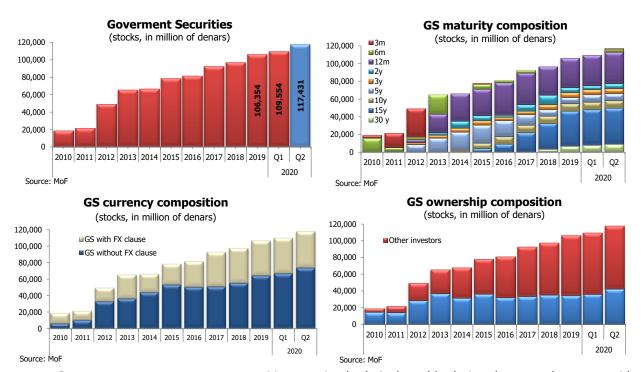
In the second quarter of the year, the interest rate on the interbank deposit market (MBKS) on average remained low and stable at 1.1%, similar to the previous quarter (1.07%), amid a decrease in the key interest rate of the National Bank by 0.25 percentage points. Trading on the interbank deposit market continued to decline in the second quarter, with the lowest quarterly turnover of Denar 480 million (Denar 642 million in the previous quarter) being registered. By structure, transactions with a maturity of up to 7 days completely dominate the total turnover on the interbank deposit market. A slight upward shift on a quarterly basis was observed at the average SKIBOR quotations, with the exception of the 6-month and 12-month quotations, where a downward adjustment was registered.



3.2. Government securities market

In the primary market of government securities, the stock of issued securities in the second quarter of the year increased. From the viewpoint of the structure, the growth is largely due to the increase in treasury bills, with a positive contribution of government bonds. Government bonds remain the dominant

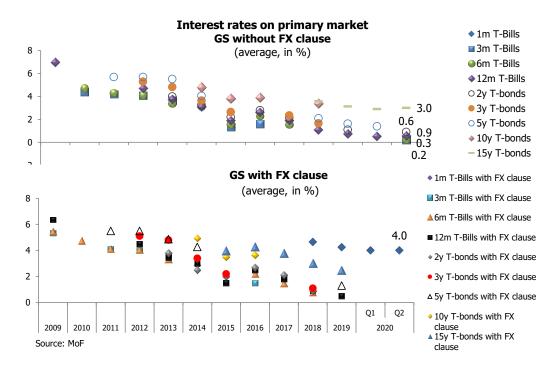
category (with a share of 66%) in the stock of total government securities issued on the primary market. In terms of maturity, the most common are 12-month treasury bills and 15-year government bonds, with a share of 30% and 35%, respectively in the total government securities. At the same time, in the second quarter of the year, after a break of almost four years, the Ministry of Finance issued 3-month treasury bills (with a share of 1% in the total government securities). Favorable developments in terms of the currency structure of government securities continued during the second quarter of the year. Namely, government securities without currency clause registered solid growth in this period, with their share in total government securities increasing from 61% to 63%, on quarterly basis. In terms of ownership structure, the greatest interest in government securities was registered with banks, whose share increased from 33% to 36% on a quarterly basis. Most of the total issued government securities are still owned by other investors (64%), within which the most common are pension funds.



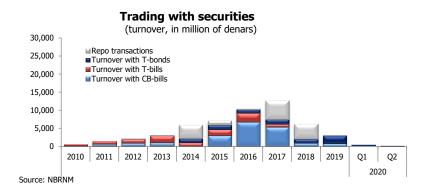
Interest rates on government securities remained relatively stable during the second quarter, with 3-month, 6-month and 12-month treasury bills sold without a currency clause at the primary market with interest rates of 0.2%, 0.3% and 0.6%, respectively.⁵⁷ Also on the primary market were sold 2-year and 15-year government bonds without currency clause and 30-year government bonds with currency clause with interest rates of 0.9%, 3.0% and 4.0%, respectively.⁵⁸

⁵⁷ In the second quarter of 2020, after a long period of reducing the interest rates on 6-month and 12-month treasury bills without currency clause, in May there was an increase from 0.2% to 0.3% and from 0.5 % to 0.6%, respectively.

⁵⁸ In the second quarter of 2020, in June, the interest rate on 15-year government bonds without currency clause increased from 2.9% to 3.0%.



The trade in securities on the secondary market in the second quarter of the year was relatively low, and structurally speaking, in this market segment, definite transactions were made only with government bonds. In terms of maturity, transactions with residual maturity of 3 to 5 years (with average yield to maturity of 1.5%) and from 15 to 30 years (with average yield to maturity of 4.0%) were realized.



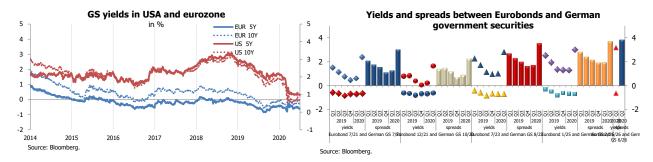
Globally, amid the rapid spread of the COVID-19 virus infection, at the end of the first quarter and during the second quarter of the year a number of central banks reacted by lowering key interest rates, and in coordination with governments they took additional measures for supporting the economies. In such conditions, in the financial markets in the euro area, in the second quarter the yields on the 10-year government securities⁵⁹ remained at a relatively stable level and averaged -0.2%, while the yields on the US 10-year government bonds⁶⁰ had downward trend and averaged 0.7% (1.4% in the first quarter of the year). Macedonian Eurobonds⁶¹ on average for the second quarter registered an increase in yields (price drop), amid a relatively stable level of yields on German government bonds. Consequently, in this period,

⁵⁹ Those are generic government bonds derived from the yield curves of government bonds of Germany and France.

⁶⁰These are generic yields derived from the US government bond yield curve.

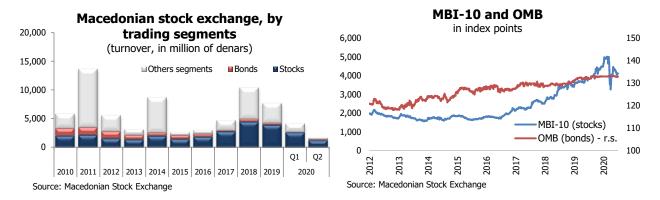
⁶¹ It refers to Macedonian Eurobonds issued in July 2014, in December 2015, July 2016, in January 2018 and in June 2020. Eurobonds are issued in the nominal amount of Euro 500 million, Euro 270 million, Euro 450 million, Euro 500 million and Euro 700 million, respectively, with a maturity of 7, 5, 7,7 and 6 years, respectively, and annual interest rates of 3.975%, 4.875%, 5.625%, 2.75% and 3.675%, respectively.

the spreads between these two bonds widened, which on average for the second quarter of the year amounted to 3.03 percentage points, 2.3 percentage points, 3.5 percentage points, 3.7 percentage points and 3.8 percentage points, respectively.



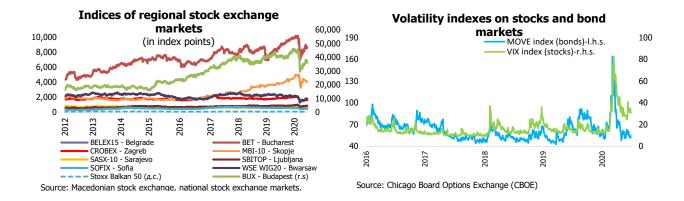
3.3. Stock exchange markets

On the Macedonian Stock Exchange, the value of the stock exchange index (MBI-10) increased by 13.6% and at the end of the second quarter was 4,116.66 index points. The stock exchange turnover was significantly lower compared to the previous quarter due to the decrease in the volume of all trading segments during the quarter. The value of the bond index (OMB) at the end of the second quarter was 133 and during the quarter remained at a relatively stable level, and did not change compared to the end of the previous quarter.



In the second quarter of the year, there was a slight upward movement in all regional stock exchanges, where the value of all indices in the region increased by 10% on average, compared to the decrease in the previous quarter of 23% on average. Significant upward movement was registered with the stock exchange indices of Poland, Slovenia and Romania, which achieved quarterly growth of 16%, 16% and 14%, respectively. The indices of other stock exchanges in the region, such as the Croatian, Bulgarian, Hungarian, Serbian and Bosnian indices, registered moderate growth on a quarterly basis, by 10%, 8%, 8%, 5% and 4%, respectively. Bond and stock market volatility indices such as the VIX⁶² and MOVE indices decreased slightly on a daily basis in the second quarter.

⁶² The MOVE index (Merrill Lynch Option Volatility Estimate) shows the volatility of the US government bond markets. The VIX index (Volatility Index) is constructed based on the implied volatility of S&P500 index options. Investors use both indices as indicators of the conditions and expectations for the financial markets volatility. Downward path in the indices indicates a decrease in volatility.



IV. Monetary and credit aggregates

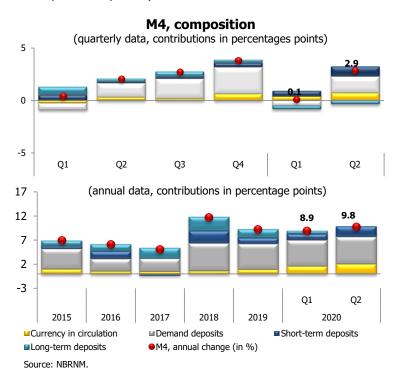
Monetary growth in the second quarter of the year, measured by the broad money M4, accelerated on a quarterly basis, compared to the growth in the previous quarter. Such adjustment of the money supply in the economy is partly related to the package of economic measures to deal with the COVID-19 crisis, where the Government pays funds to companies and households in order to increase the liquidity of enterprises and support the purchasing power of households. From a structural point of view, the quarterly growth of the money supply mostly results from the growth of the most liquid component i.e. the demand deposits, with a positive contribution to the savings and the currency in circulation. From a sectoral point of view, the household deposits, the corporate deposits and other sectors' deposits registered accelerated growth. Lending activity continued to grow, with accelerated quarterly dynamics. The loan growth is primarily due to the growth of corporate loans, amid solid growth of household loans. The Bank Lending Survey for the second quarter indicates a net decrease in the demand of both sectors, amid further net easing of credit conditions.

4.1. Monetary aggregates

Despite the strong adverse effects of the COVID crisis, visible through high-frequency indicators, in the second quarter of 2020 the broad money M4 recorded accelerated growth of 2.9% on a quarterly basis (0.1% in the previous quarter). The accelerated growth of the money supply is partly related to the government package of measures to support the economy and deal with the crisis caused by the spread of the COVID-19 virus infection. As part of the package of economic measures, the Government provided financial support to companies and households affected by the crisis, in order to increase the liquidity of enterprises and support the disposable income of households.⁶³ From the aspect of the money supply structure, the acceleration of the growth is mostly due to the demand deposits (with contribution of 1.6 percentage points), which in the second quarter increased by 5.2%, after the fall in the first quarter (of 1.6%). Of other broad money components, savings and currency in circulation registered accelerated quarterly growth of 1.0% and 8.5%, respectively (contributions of 0.6 percentage points and 0.7 percentage points, respectively), compared to the growth of 0.3% and 4.9%, respectively, in the previous

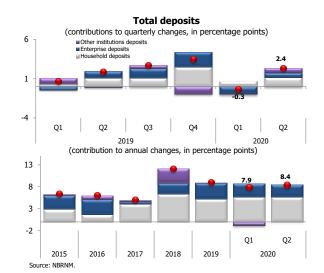
⁶³ During the second quarter, the Government paid subsidies for the payment of wages and contributions, as well as subsidies to farmers. Also, accelerated growth of M4 in the second quarter is common due to seasonal factors (increased consumption due to religious holidays).

quarter. In terms of currency structure, the broad money growth in the second quarter resulted from both denar (including demand deposits) and foreign currency deposits (contributing by 1.2 percentage points and 1.0 percentage point, respectively). The share of foreign currency deposits in M4 at the end of the second quarter of the year equaled 35.4% and was slightly lower compared to the end of the previous quarter (35.5%). Annually, the growth of M4 was 9.8% at the end of the second quarter (8.9% at the end of the previous quarter).



In the second quarter of 2020, the total deposits in the financial system⁶⁴ increased by 2.4% quarterly, as opposed to the decrease of 0.3% in the previous quarter. By currency, denar deposits have a positive contribution of 1.3 percentage points in the total deposits growth (entirely as a result of demand deposits), with lower positive contribution of foreign currency deposits (1.0 percentage point). According to the maturity structure of savings, short-term deposits continued to grow, while long-term deposits declined slightly, as in the previous quarter. On an annual basis, the total deposits growth equaled 8.4% at the end of June (7.9% at the end of the previous quarter). From a sectoral point of view, the quarterly growth of total deposits is primarily a result of the increase in household deposits, amid a more moderate positive contribution of corporate and other sectors.

⁶⁴ Data refer to non-government deposits in banks and savings houses, funds of other financial institutions on the accounts with the National Bank and funds of local government authorities on the accounts with the National Bank. The data are consistent with the methodological changes of the National Bank from June 2018. For more information on the methodological changes visit: http://www.nbrm.mk/monetarna statistika i statistika na kamatni stapki.nspx.



-			2020			
	Q1	Q2	Q3	Q4	Q1	Q2
	quarterly	change, ir	n %			
Total deposits	0.7	1.9	2.7	3.5	-0.3	2.4
COI	tributions to o	uarterly g	rowth, p.,).		
Deposit money	-0.7	1.4	2.0	2.7	-0.5	1.7
Denar deposits	0.4	0.5	0.1	0.1	-0.7	-0.4
FX deposits	0.9	-0.1	0.6	0.6	0.9	1.0
Short-term deposits	0.6	0.1	0.2	0.5	0.6	1.0
Long-term deposits	0.8	0.3	0.5	0.3	-0.4	-0.4
Households	0.3	1.1	1.1	2.5	0.7	1.2
Enterprises	-0.4	0.9	1.2	1.9	-0.9	0.6
Other institutions deposits	0.8	-0.1	0.4	-1.0	-0.1	0.6

In the second quarter of the year, the household deposits registered quarterly growth of 1.8%, which is higher compared to the growth in the previous quarter (1.1%). The quarterly growth of household deposits, in terms of currency, is largely due to higher foreign currency deposits, with lower positive contribution of denar deposits (entirely as a result of demand deposits). Observing by maturity of savings, the growth of household deposits was mostly a result of the increased short-term deposits, amid fall in long-term deposits for a second quarter in a row. The annual increase in total household deposits was 8.7% at the end of June (8.6% in the previous quarter).

In the second quarter of 2020, the corporate deposits registered quarterly growth of 2.2%, compared to the decrease in the previous quarter (3.4%). This change is partly explained by the payment of state aid to companies affected by the measures taken due to the pandemic. According to the currency structure, the change in corporate deposits is mostly due to the increase in denar deposits, i.e. demand deposits, amid lower growth of foreign currency deposits. In terms of maturity, short-term deposits slowed their quarterly growth down, while long-term deposits increased slightly, despite the decrease in the previous quarter. Annually, at the end of June, corporate deposits increased by 11.2% (12.5% at the end of the previous quarter).

Household deposits													
		20)19		2020								
	Q1	Q2	Q3	Q4	Q1	Q2							
quarterly change, in %													
Total household deposits	0.5	1.7	1.7	3.9	1.1	1.8							
contributio	n to quarterly c	hange of	total depo	sits. in p.p									
Deposit money	-0.8	1.2	0.5	3.1	0.7	1.5							
Denar deposits	0.6	0.2	0.2	0.3	-0.2	-0.9							
FX deposits	0.7	0.3	1.0	0.5	0.6	1.2							
Short-term deposits	0.5	0.1	0.8	0.5	0.5	0.8							
Long-term deposits	0.8	0.3	0.4	0.2	-0.1	-0.4							
Courses NRDNM													

		20)19		20	20							
	Q1	Q2	Q3	Q4	Q1	Q2							
quarterly change, in %													
Total household deposits	-1.6	3.4	4.7	7.5	-3.4	2.2							
contributio	n to quarterly c	hange of	total depos	sits. in p.p									
Deposit money	-2.1	3.6	4.9	6.1	-3.9	2.0							
Denar deposits	-0.8	0.9	-0.3	0.0	-1.4	-0.4							
FX deposits	1.3	-1.1	0.2	1.4	2.0	0.6							
Short-term deposits	-0.1	-0.5	-0.2	0.6	1.5	0.2							
Long-term deposits	0.6	0.3	0.1	0.8	-1.0	0.1							

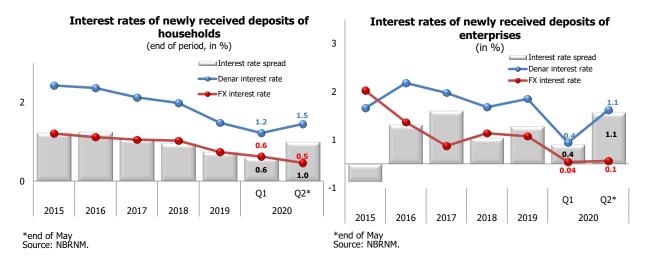
Regarding the returns⁶⁵ on new savings, the interest rate on the newly accepted⁶⁶ denar household deposits in May equaled 1.5% and increased compared to the end of the previous quarter (1.2%), while the interest rate on foreign currency deposits was 0.5 % and is lower than at the end of March (0.6%). In such conditions, the interest rate spread between the new denar and foreign currency household savings

⁶⁵ Data on interest rates are in accordance with the methodological changes of the National Bank from June 2018. For more information on the methodological changes visit:

http://www.nbrm.mk/monetarna_statistika_i_statistika_na_kamatni_stapki.nspx.

⁶⁶One should have in mind that the interest rates on the newly accepted deposits are volatile. Volatility of interest rate on newly accepted deposits results from the fact that they are driven by the volume of newly accepted deposits (which can vary from month to month) and their interest rate.

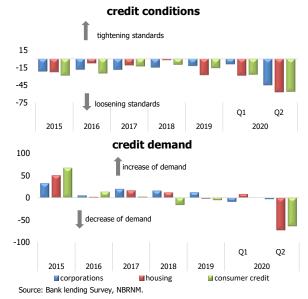
in May amounted to 1.0 percentage points and expanded compared to March (by 0.6 percentage points). Interest rates on newly accepted denar and foreign currency corporate deposits in May amounted to 1.1% and 0.1% respectively, which is an increase compared to March (0.4% and 0.04%, respectively). Taking into account these movements, the interest rate spread between the newly accepted denar and foreign currency corporate deposits at the end of May widened from 0.4 percentage points in March to 1.1 percentage points in May. Analyzing the total accepted deposits, interest rates on household and corporate deposits (denar and foreign currency) in May remained unchanged compared to the end of March and equaled 1.1% and 1.2%, respectively.



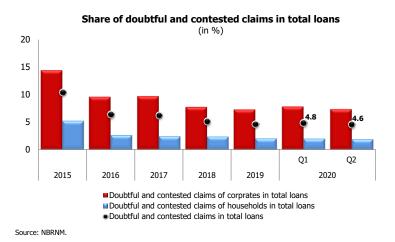
4.2. Lending activity

In the second quarter of 2020, the banking sector intensified their lending support to private sector. The total credits realized quarterly growth of 2.6%, which is an acceleration compared to the previous period (0.7% in the first quarter). In order to stimulate lending activity, since the beginning of the crisis the National Bank has adopted a series of measures to reduce the financing costs through bank loans and as to provide additional liquidity in the banking system. The net easing of credit conditions continued in the second quarter, with stronger dynamics for both companies and households. Surveys, on the other hand, point to a downward adjustment in credit demand. Thus, the results of the Credit Activity Survey for the second quarter indicate a net decrease in demand in both sectors (corporate and households), which is significantly more pronounced in households. For the third quarter of 2020, banks expect net increase in the total demand for loans by both sectors, amid net easing of credit conditions in the corporate sector and net tightening of credit conditions in the household sector.

lotal credits of private sector														
	2019 202													
	Q1	Q2	Q3	Q4	Q1	Q2								
quarterly change, in %														
Total credits of private sector	0.8	1.8	-0.5	3.8	0.7	2.6								
Contribution in quarterly change of total credits (in p.p.)														
Denar credits	0.4	0.8	-0.8	2.0	0.5	1.7								
Foreign currency credits	0.5	1.0	0.3	1.8	0.2	0.9								
Short-term credits	-0.1	-0.3	-0.9	0.6	0.1	-0.4								
Long-term credits	0.8	1.8	1.2	3.2	0.3	2.7								
Households	0.9	1.7	1.1	1.4	0.8	1.1								
Corporations	0.0	0.2	-1.7	2.5	-0.1	1.5								
Source: NBRNM.														



From a sectoral point of view, the quarterly growth of loans to private sector is primarily a result of the increase in corporate loans, amid solid growth of household loans, as well. From currency point of view, the growth mainly arises from the denar loans, amid moderate growth of the foreign currency loans as well.⁶⁷ Analyzing the maturity structure, the quarterly growth of total loans was almost solely due to long-term loans, amid small fall of short-term loans. The share of doubtful and contested claims in total loans at the end of June equaled 4.6% and decreased by 1.2 percentage points compared to the end of March 2020.



The solid growth on annual basis of total loans continued in the second quarter of 2020, at a rate of 6.6% (5.8% in the previous quarter). The annual growth of total loans is still primarily due to the growth of household loans, amid increasing corporate loans. Loan to deposit ratio at the end of June equaled 82.5% and increased moderately by 82.2% compared to the end of March 2020.

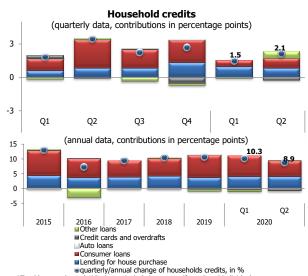
In the second quarter of 2020, the growth of household lending accelerated compared to the previous quarter. The realized quarterly growth of 2.1% (1.5% in the first quarter) largely stems from the increase in consumer and housing loans, with a positive contribution of other loans, while credit cards and

⁶⁷ Foreign currency loan data also include denar loans with currency clause.

overdrafts on current accounts decreased slightly. The Bank Lending Survey for the second quarter indicates a significant net decrease in the total loan demand by the households, amid further net easing of the credit conditions. As factors that act towards credit demand reduction, the banks have pointed out the costs that are not related to housing and loans from other banks (in housing loans), as well as spending on durable goods and household savings (in consumer loans). From currency point of view, the growth of household loans results mostly from the increase in denar loans, amid lower positive contribution of foreign currency loans (including loans with foreign exchange clause). Analyzing the maturity structure, the quarterly growth was almost solely due to long-term loans, amid small fall of short-term loans. Annually, at the end of June, total loans to households increased by 8.8% (10.1% at the end of March).

Total o	credits	of ho	usel	ıold	ls
---------	---------	-------	------	------	----

		20		20	20								
	Q1	Q2	Q3	Q4	Q1	Q2							
quarterly change, in %													
Total credits of households	1.8	3.4	2.2	2.7	1.5	2.1							
Contribution in quarterly change of household credits (in p.p.)													
Denar credits	1.6	1.7	0.8	1.3	0.9	1.6							
Foreign currency credits	0.2	1.7	1.4	1.3	0.6	0.5							
Short-term credits	0.4	0.0	0.0	-0.3	0.0	-0.4							
Long-term credits	1.4	3.2	2.5	3.1	1.5	1.9							
Source: NBRNM.													



*Total loans to households do not include loans to self-employed individuals

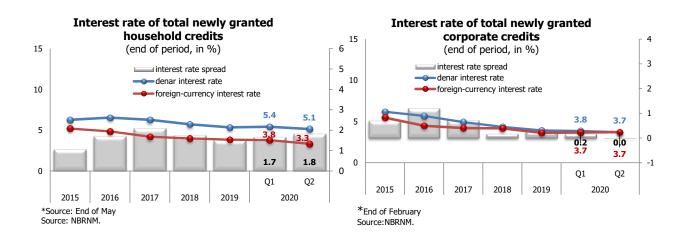
In the second quarter of 2020, total loans extended to enterprises registered quarterly growth of 3.2%, compared to the small decrease in the previous quarter (of 0.2%). The Bank Lending Survey for the second quarter indicates a small net decrease in the corporate loan demand, amid eased credit standards. About one third of the banks indicated reduced credit demand and the same percentage of banks indicated increased demand for loans. From currency point of view, the growth of the total credits of the enterprises is primarily a result of the increase of the denar loans, given simultaneous decrease in the foreign currency loans. The analysis of maturity structure shows that the quarterly increase is due to the long-term loans, with a minor fall in short-term loans. Annually, at the end of June, total corporate loans increased by 4.6% (1.8% at the end of March).

Total credits of corporations

rotal credits of corporations															
		20	20	20											
	Q1	Q2	Q3	Q4	Q1	Q2									
	quarterly change, in %														
Total credits of corporations	0.0	0.3	-3.4	5.1	-0.2	3.2									
Contribution in qu	Contribution in quarterly change of corporation credits (in p.p.)														
Denar credits	-0.8	0.1	-2.5	2.7	0.0	1.8									
Foreign currency credits	0.7	0.2	-0.9	2.4	-0.2	1.3									
Short-term credits	-0.5	-0.7	-2.0	1.8	0.1	-0.4									
Long-term credits	0.4	0.4	-0.1	3.5	-0.9	3.7									

Source: NBRNM.

According to the data on the interest rates⁶⁸ on the newly approved loans⁶⁹ in May, interest rates on denar and foreign currency loans to households amounted to 5.1% and 3.3%, respectively, and they are lower compared to the previous quarter (5.4% and 3.8%, respectively). In such conditions, the interest rate spread between the new denar and foreign exchange lending to households amounted to 1.8 percentage points and slightly expanded (by 1.7 percentage points in the previous quarter). At the companies, the interest rates on the newly approved denar and foreign currency loans in May equalized and amounted to 3.7% (3.8% and 3.7%, respectively in the previous quarter). Regarding the total approved loans to the private sector, at the end of May, the interest rates on loans to households and enterprises were 5.6% and 4.0%, respectively (5.6% and 4.1%, respectively in March).



V. Public finances

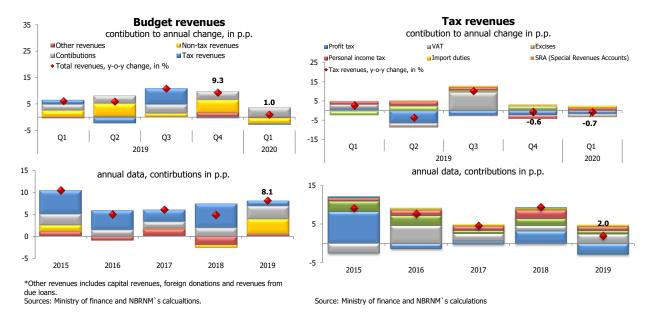
The rapid spread of the COVID-19 virus and its negative effect on both the global and the domestic economy, partly reflected on the fiscal sector. Namely, in conditions of weak economic growth, in the first quarter of 2020, the growth of budget revenues slowed down, amounting to 1% on annual basis, amid further growth of budget expenditures of 9.4%. In such conditions, the budget deficit was 1.1% of GDP and is higher compared to the performance in the same quarter last year. The deficit was mostly funded through domestic borrowing and withdrawing funds from the government deposit account with the National Bank. In conditions of additional deterioration of economic performance in April and May, for the period January - May 2020, the budget deficit is 2.8% of GDP, which is 40.9% of the supplementary budget for 2020. The budget deficit in the period January-May was mostly financed through domestic borrowing, and in some part through foreign borrowing, whereby part of the inflows were retained as government deposits in the

⁶⁸ Data on interest rates are in accordance with the methodological changes of the National Bank from June 2018. For more information on the methodological changes visit: http://www.nbrm.mk/monetarna_statistika_i_statistika_na_kamatni_stapki.nspx.

⁶⁹One should have in mind that the interest rates on newly approved loans are volatile. Volatility of interest rate on newly approved loans results from the fact that they are driven by the volume of newly approved loans (which can vary from month to month) and their interest rate.

National Bank. At the end of the first quarter of 2020, total public debt equaled 50.9% of GDP, which is by 2.0 percentage points more compared to the end of 2019.

In the first quarter of 2020, the total revenues in the Budget of the Republic of North Macedonia⁷⁰ are higher by 1.0%, on annual basis, which is a significant slowdown compared to the growth of 9.3% in the fourth quarter of 2019. This shift in part reflects the unexpected negative shock to the domestic economy associated with the rapid spread of COVID-19 virus infection and measures to prevent its spread, which led to a decrease in total revenues in March. Observed by separate categories within the budget revenues, annual decrease was registered in almost all categories, with the exception of contributions, where positive developments were registered. The deteriorations in the real sector of the economy due to the health crisis led to a downward adjustment in the most significant income item - taxes, which registered an annual decline of 0.7%, and other revenues were lower by 11.1%⁷¹ (with a negative contribution of 0.4 percentage points and 0.3 percentage points, respectively). The decrease in non-tax revenues of 22.5% (negative contribution of 2.1 percentage points) is due to the higher comparison basis⁷². On the other hand, the contributions increased by 12.2% on annual basis (contribution of 3.7 percentage points), in conditions of increased rates for mandatory pension and disability insurance that came into force in early 2020, as well as measures taken to increase wages⁷³.



The decrese in total tax^{74} revenues of 0.7% during the first quarter of 2020 results from lower income based on tax revenues and VAT⁷⁵ (with a negative contribution of 1.8 percentage

⁷⁰ Central budget and budgets of funds.

⁷¹ Other revenues include capital revenues, donations from abroad and revenues from recovered loans.

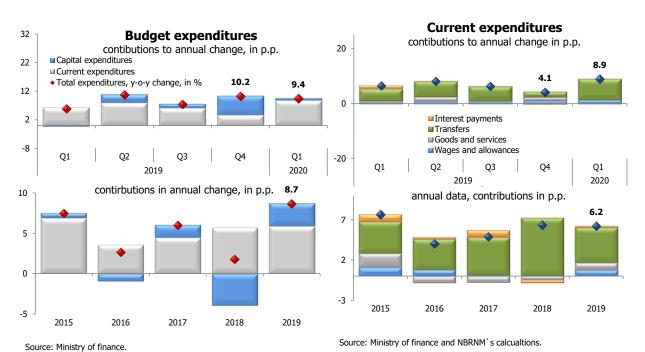
⁷² Lower non-tax revenues in are mostly due to the higher base effect in the first quarter of 2019 when there were higher inflows to the Pension and Disability Insurance Fund's account in the RNM Budget. These inflows were a result of the transfer of funds of the private pension funds in accordance with the Law Amending the Law on Mandatory Fully Funded Pension Insurance and the Law Amending the Law on Pension and Disability Insurance (Official Gazette of RM No. 245 of 28 December 2018).

⁷³ The rates for mandatory pension and disability insurance increased from 18.4% in 2019 to 18.8% in 2020 and for mandatory health insurance from 7.4% in 2019 to 7.5% in 2020. Additionally, the increase of the contributions is related to the increased basis as a result of the increase of the minimum net wage to 14,500 denars in December 2019, the increase of the wages in the public sector, as well as the effect of the measure for subsidizing the contributions due to the increase in wages.

⁷⁴ It also includes own revenue accounts (SSP).

⁷⁵ The negative contribution of net VAT revenues in the first quarter of 2020 results from the growth of gross VAT revenues by 2.5% annually, amid higher growth of VAT refund payments by 13.9% on annual basis.

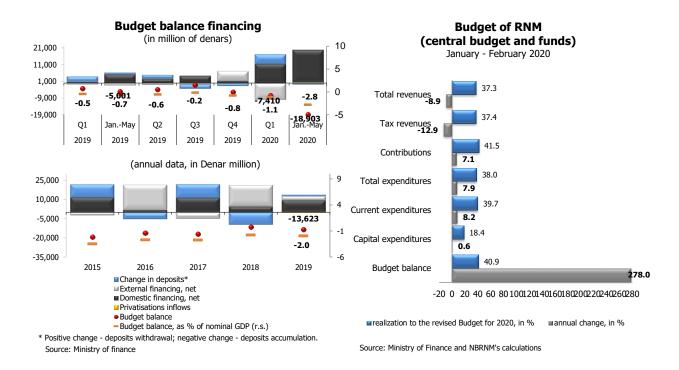
points and 1.4 percentage points, respectively). Compared to the other categories, personal income tax increased on an annual basis by 8.4% (contribution of 1.3 percentage points), which mostly stems from the measures taken to increase wages in the economy.⁷⁶ Also, import duties and excises registered annual growth of 20.3% and 1.4%, respectively, and had a positive contribution (of 1.1 percentage points and 0.3 percentage points, respectively).



Total budget expenditures in the first quarter of 2020 were by 9.4% higher on an annual basis (10.2% in the previous quarter). The growth mostly results from the higher current expenditures (with a contribution of 8.6 percentage points) amid smaller contribution of capital expenditures (of 0.8 percentage points). On annual basis, current expenses increased by 8.9%, with the largest contribution to the growth having the category "transfers" (7.7 percentage points).

⁷⁶ The positive contribution is related to the increase of the minimum net wage to 14,500 denars in December 2019, the increase of wages in the public sector, as well as the effect of the measure for subsidizing the contributions due to the wage increase.

⁷⁷ The increase in transfers is mostly associated with the payment of subsidies in agriculture.

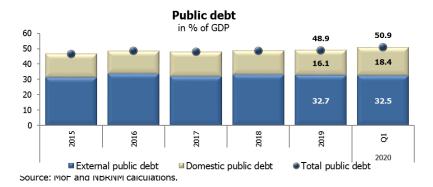


As a result of the lower budget revenues due to the health crisis, in the first quarter of 2020, the budget deficit expanded to Denar 7,410 million or 1.1% of GDP, which is a higher realization compared to the same period last year (0.5% of GDP). The realized deficit was mainly financed through domestic⁷⁸ borrowing and use of funds from the Government's deposit account with the National Bank, given higher repayments abroad⁷⁹.

BUDGET OF REPUBLIC	OF NO	RTH MA	CEDON	IIA (Cer	tral bu	iget and i	oudgets o	of fund	s)								
		20	19				2020				2	019			202	20	
	Budget for 2019	Revised Budget for 2019	Q4	Total budget for 2019	Budget for 2020	Realocation 2020	Revised Budget for 2020	Q1	JanMay	,	Q4 Total budget for 2019		4 Total budget for 2019 Q1			Jan	nMay
				•	•		•	•		Annual changes, perod in Q4 2019, in %	Contributions in annual changes, perod in Q4 2019, in p.p.	Annual changes, perod in 2019, in %	Contributions in annual changes, perod in 2019, in p.p.	Annual changes, perod in Q1 2020, in %	Contributions in annual changes, perod in Q1 2020, in p.p.	Annual changes, perod in January to May 2020, in %	Contributions in annual changes, perod in January to May 2020, in p.p.
TOTAL REVENUES	210,848	210,551	56,718	203,822	222,308	222,308	196,768	46,486	73,388	9.3	9.3	8.1	8.1	1.0	1.0	-8.9	-8.9
Tax revenues and contributions	184,201	184,037	48,550	178,895	197,162	197,162	172,407	42,175	66,679	3.1	2.8	4.6	4.2	3.8	3.3	-6.0	-5.3
Taxes	120,166	120,166	30,974	115,114	127,810	127,810	106,730	26,137	39,932	-0.9	-0.5	2.1	1.2	-0.5	-0.3	-12.9	-7.3
Contributions	62,316	61,460	17,146	62,166	67,033	67,033	63,397	15,773	26,332	10.6	3.2	10.0	3.0	12.2	3.7	7.1	2.2
Non-tax revenues	18,521	19,145	5,808	18,687	17,322	17,322	17,063	3,329	4,826	75.8	4.8	52.4	3.4	-22.5	-2.1	-36.4	-3.4
Capital revenues	2,026	2,026	1.045	2,369	2,183	2,183	2,139	378	465	127.7	1.1	7.8	0.1	75.0	0.4	34.8	0.1
Foreign donations	6,000	5,243	1,315	3,871	5,541	5,541	5,159	604	1,418	33.6	0.6	30.0	0.5	-32.0	-0.6	-16.4	-0.3
TOTAL EXPENDITURES	228,548	228,251	62,202	217,445	239.693	239,693	242,948	53,896	92,291	10.2	10.2	8.7	8.7	9.4	9.4	7.9	7.9
Current expenditures	202,577	205,542	52,945	199,633	215,922	219,382	223,402	51,885	88,702	4.1	3.7	6.2	5.9	8,9	8.6	8.2	7.8
Capital expenditures	25,971	22,709	9,257	17,812	23,771	20,311	19,546	2,011	3,589	66.8	6.6	46.6	2.8	24.5	0.8	0.6	0.0
BUDGET DEFICIT/SURPLUS	-17,700	-17,700	-5,484	-13,623	-17,385	-17,385	-46,180	-7,410	-18,903	00.0	0.0	10.0	2.0	2 113	0.0	0.0	0.0
Financing	17,700	17,700	5,484	13,623	17,385	17,385	46,180	7,410	18,903								
Inflow	34,195	34,007	11,412	29,691	60,598	60,598	88,287	18,947	31,542								
Privatisation receipts	100	373	275	609	300	300	490	73	640								
Foreign loans	25,416	10,140	7,782	8,814	34,334	34,334	76,872	622	11,697				I	l	I		1
Deposits	-10,325	4,464	-1,674	1,210	-1,108	-1,108	-19,222	5,774	-858				I	l	I		1
Treasury bills	19,001	19,001	5,029	19,028	27,062	27,062	30,137	12,478	20,063								
Sale of shares	3	30	0	30	10	10	10	0	0				I	1			
Outflow	16,495	16,307	5,928	16,068	43,213	43,213	42,107	11,537	12,639								
Repayment of principal	16,495	16,307	5,928	16,068	43,213	43,213	42,107	11,537	12,639								
External debt	6,175	5,987	2,047	5,754	26,923	26,923	26,855	10,437	11,539								
Domestic debt Source: Ministry of Finance and NBI	10,320	10,320	3,881	10,314	16,290	16,290	15,252	1,100	1,100]	1]		

⁷⁸ Besides the issuance of government securities, domestic government borrowing was also made by the domestic commercial banks by around Euro 135 million, i.e. Denar 8,172.5 million, intended for repayment of a foreign loan that fell due on 29 January 2020.
⁷⁹ It is a repayment of the second installment in the amount of Euro 158 million from the PBG loan concluded in 2013, which fell due on 29 January 2020.

In the period January - May 2020, the total budget revenues decreased by 8.9% compared to the same period of the previous year, mostly reflecting the significantly deteriorated economic performance due to the rapid spread of COVID-19 virus and the measures taken to deal with it. The decline in revenues is especially noticeable in April - May, when the effects of the crisis are most pronounced. During these two months, the decrease in budget revenues amounted to 22.1% on annual basis. The decrease in total revenues in the first five months is largely due to lower tax performance, by 12.9% (negative contribution of 7.3 percentage points) and non-tax⁸⁰ revenues, while contribution income increased. In the period January-May, budget expenditures increased by 7.9% on annual basis, almost entirely due to the growth of current expenditures, amid insignificant contribution to the growth of capital expenditures. Within the current costs, there is a decrease in costs in the category "goods and services", with higher transfer costs, which are associated with subsidies in agriculture, wage subsidies to companies affected by the crisis and health care costs, and with aimed at mitigating the effects of the pandemic on the economy. Such deteriorating conditions in the economy imposed the need for Budget revision⁸¹ in May, with an upward correction of the deficit for 2020 from Denar 17,385 million (2.6% of GDP) to Denar 46,180 million (6.9% of GDP). In the period January - May 2020, the budget deficit amounted to Denar 18,903 million (or 2.8% of GDP82), representing 40.9% of the 2020 Budget revision. The budget deficit in this period was mostly financed through domestic borrowing, and to a lesser extent through external⁸³ borrowing, with a small part of the inflows being retained as government deposits in the National Bank.



At the end of the first quarter of 2020, total public debt⁸⁴ equaled 50.9% of GDP⁸⁵, which is an increase of 2.0 percentage points compared to the end of 2019. This change results from internal public debt, which increased by 2.2 percentage points and equaled 18.4% of GDP at the end of the quarter, without any major change in external public debt (fall of 0.2 percentage

⁸⁰ The decrease is a result of the higher base in the period from January to May 2019. Namely, in January and May 2019, non-tax revenues increased due to higher inflows on the Pension and Disability Insurance Fund account from private pension funds. These inflows were a result of the transfer of funds of the private pension funds in accordance with the Law Amending the Law on Mandatory Fully Funded Pension Insurance and the Law Amending the Law on Pension and Disability Insurance (Official Gazette of RM No. 245 of 28 December 2018).

⁸¹At its session held on 15 May 2020, the Government of the Republic of North Macedonia adopted a decree with legal force on amending the Budget of the Republic of North Macedonia for 2020 during a state of emergency (Official Gazette of the Republic of North Macedonia No. 126 of 15 May 2020).

⁸²The analysis uses the National Bank's April forecasts for the nominal GDP for 2020.

⁸³At the beginning of April, the International Monetary Fund confirmed financial support for our country, through the Rapid Financing Instrument, in the amount of around Euro 176 million.

⁸⁴ The public debt is defined under the Law on Public Debt (Official Gazette No. 62/05, 88/08, 35/11, 139/14 and 98/19) as the sum of the government debt and the debt of public companies established by the state or municipalities, municipalities within the City of Skopje and the City of Skopje, and companies that are entirely or predominantly owned by the state or by the municipalities, the municipalities within the City of Skopje and the City of Skopje.

⁸⁵ At the end of the first guarter of 2020, the total public debt equaled Euro 5,560 million.

points) which equals 32.5% of GDP. In terms of debt structure, total government debt⁸⁶ is 41.9% of GDP and increased by 1.7 percentage points compared to the previous quarter, while the debt of public enterprises (guaranteed and non-guaranteed⁸⁷) amounted to 9.0% of GDP (growth of 0.3 percentage points). Compared to the same period of 2019, total public debt at the end of the first quarter of 2020 increased by 4.6 percentage points of GDP.

VI. Analytical appendices

Annex 1. The negative effects of the COVID-19 pandemic on the Macedonian economy through the prism of high frequency indicators

The pandemic caused by the new COVID-19 viral infection from the beginning of 2020 resulted in a synchronized global recession. Measures taken to prevent the spread of the virus have imposed measures such as border closures, restricted movement, closure of production facilities and service activities, especially those based on social interaction. Given such global environment and measures taken in order to minimize the risks to public health and protect the health system, the consequences on the domestic economy are also evident. The effects were felt from the mid-March, and especially in April, while the gradual easing of the measures contributed to a moderate improvement in May.

These findings are perceived through the movement of high-frequency indicators. Sharp changes in the levels of certain indicators are visible even in March, indicating that catering and tourism, industry and trade are the most seriously affected sectors. This situation reflected on expectations and economic confidence, on the labor market, as well as on foreign trade.

The following are the most important leading indicators for the largest sectors of the economy; then indicators from surveys on the economic confidence of business entities and consumers; indicators of banks' credit conditions and demand for loans by the corporate sector and households; movements of the indicative categories of private consumption and investments, as well as data on foreign trade.⁸⁸

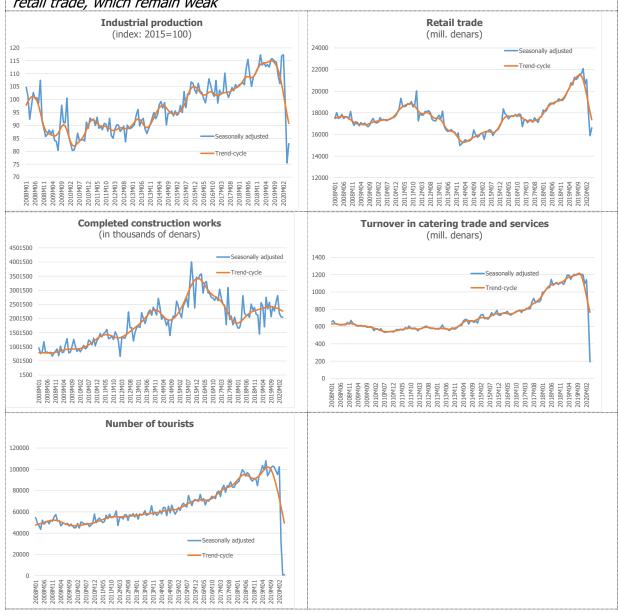
⁸⁶ Government debt is defined as a sum of debts of the central government, the public funds and the municipalities.

⁸⁷ According to the amendments to the Law on Public Debt from May 2019, the non-guaranteed debt of public companies and joint stock companies established by the state or municipalities, municipalities within the City of Skopje and the City of Skopje is calculated in public debt (Official Gazette No. 62/05, 88/08, 35/11, 139/14 and 98/19).

⁸⁸ In order to have a clearer movement of the indicators, they are seasonally adjusted, and their trend-cycle component is shown additionally. The seasonally adjusted series consists of a trend-cycle component and an irregular component. Seasonal adjustment of series that are highly volatile is sometimes not enough to draw conclusions about trends. In those cases, further smoothing of the seasonally adjusted series is recommended, by adjustments also for the impact of the irregular component. Hence, in addition to the seasoned series, we also show the trend-cycle series, because the seasoned series with several variables still remain volatile. The estimated trend cycle of the series is considered as auxiliary information for the seasonally adjusted series. All nominal variables are deflated by the consumer price index.

High frequency indicators for the main economic activities

Downward movements in all high-frequency indicators for the main economic activities in March and April, with initial signs of improvement in the movements in May in industry and retail trade, which remain weak



Survey indicators from business entities and consumers89

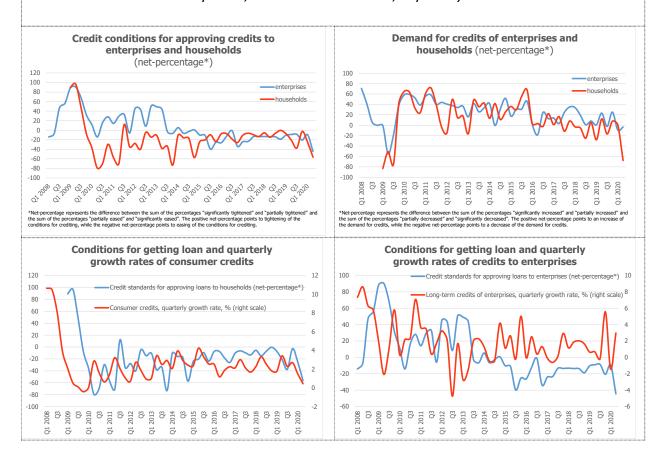
After a small decline in March, April recorded the historically lowest level of the economic confidence indicator (with a decline in confidence in all sectors), with a slight improvement in May and June



⁸⁹ It refers to the surveys conducted by the European Commission to measure the economic confidence of entities in an economy. The composite indicator of economic confidence is a weighted average of the consumer confidence indicators and economic sectors confidence indicators (construction, industry, retail trade and services), standardized before.

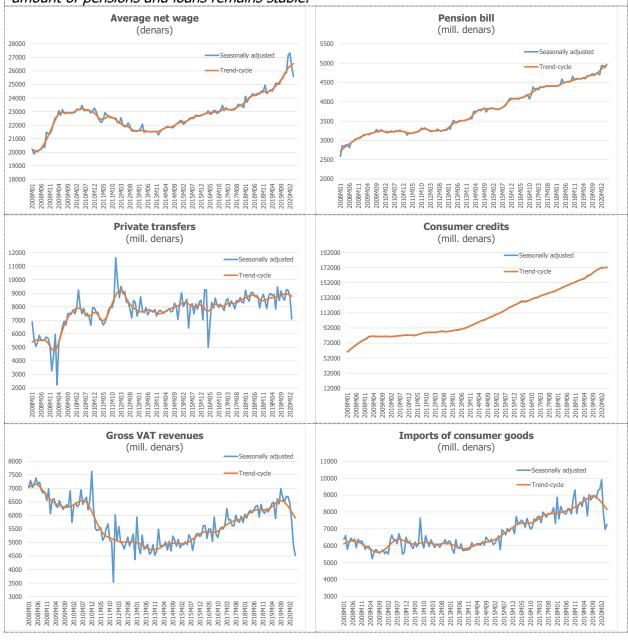
Banks' lending policy and demand for loans

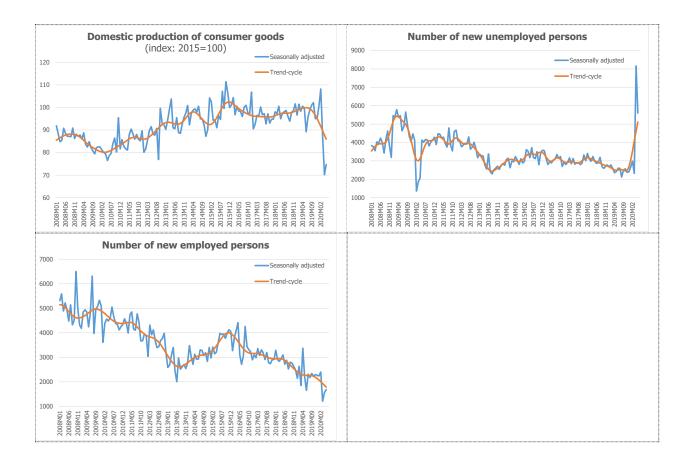
Further and more pronounced easing of the total lending conditions for enterprises and households in the second quarter, amid weaker demand, especially in the household sector



Some of indicative categories of private consumption

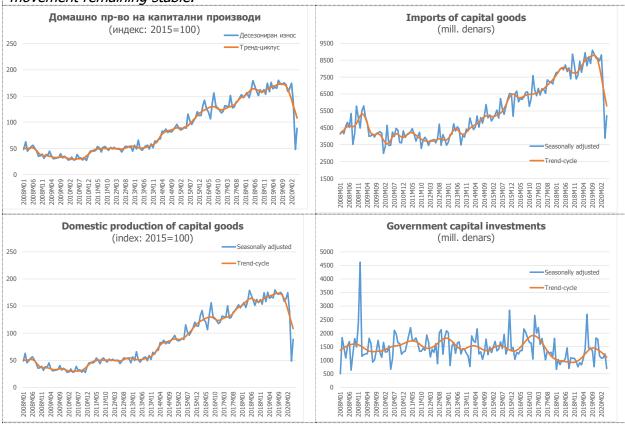
Downward adjustments in some of the high-frequency indicators for private consumption in March and April, with some improvements in May. The biggest unfavorable adjustment is observed in the domestic production of consumer goods, the import of consumer goods, the number of new unemployed and the gross VAT income. There is a more moderate adjustment in wages, private transfers and the number of new employees, while the movement of the amount of pensions and loans remains stable.



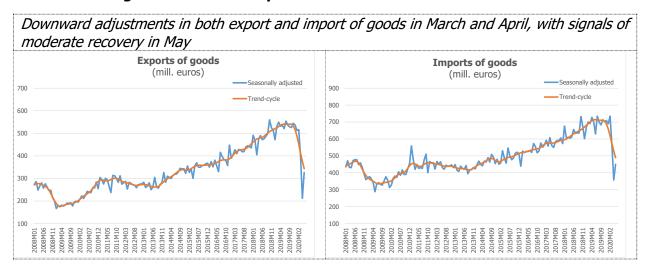


Some of indicative investment categories

Downward adjustments in some of the high-frequency investment indicators in March and April, with certain improvements in May. The largest downward adjustment was registered in the domestic production of capital products and the import of means of operations, while there was a more moderate decline in the capital government expenditures, with the credit movement remaining stable.



Indicative categories of the net export demand



Annex 2. Change in the perceptions of banks in conditions of pandemic - findings from the Credit Activity Survey for the second quarter

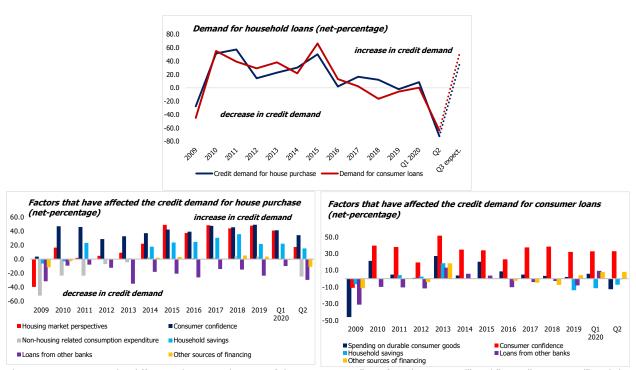
The Credit Activity Survey for the second quarter of 2020 covers a period when the negative effects of the rapid spread of COVID-19 virus infection were felt more intensively in the domestic economy. The very specific nature of the current health crisis has contributed to hampered economic activity, increased uncertainty and restraint in the private sector.

The latest results of the Credit Activity Survey show **decreased credit demand**, **particularly pronounced in households**. On the other hand, banks have significantly eased the credit conditions for enterprises and households, which in part reflects the monetary relaxation and changes in prudential regulations. The expectations of the banks are in the direction of certain stabilization of the demand and the lending conditions, with a slight net tightening of the lending conditions with households.

In the next section, we give a brief overview of the latest results of the Credit Activity Survey, giving a brief comparison with the results of the 2009 crisis.

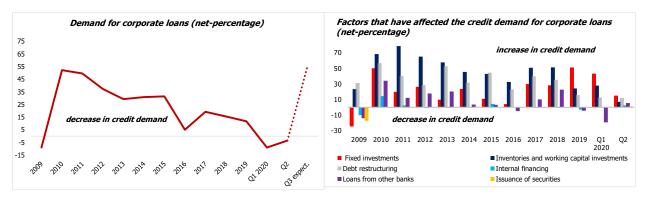
Loan demand

In the second quarter of 2020, banks indicate a net decrease in credit demand, which is significantly more pronounced in households, while less pronounced in enterprises. In households, such an intensive demand adjustment was performed in 2009, during the global financial crisis. Significant net reduction is present in all types of loans, including housing and consumer loans. Thereby, only a part of the factors act on reducing the demand. In the case of housing loans, factors that towards demand reduction are non-housing consumer costs, loans from other banks, as well as other sources of financing. In consumer loans, reduced spending on durable goods is a major factor contributing to the net reduction in demand, with household savings continuing to act in this direction. For comparison, in 2009, with the same high net percentage of a decrease in the demand, banks assessed that all factors acted towards reducing the demand for housing and consumer loans.



The net percentage is the difference between the sum of the percentages "significantly increased" and "partially increased" and the sum of the percentages "partially decreased" and "significantly decreased".

According to the banks, in the corporate sector, the adjustment of the demand for loans is less pronounced. In terms of factors, banks point to greater restraint in investments, with factors such as investments in fixed assets, working capital and debt restructuring less likely to increase the demand for corporate loans than before. The factors of alternative financing (internal financing, loans from other banks and issuance of securities) almost do not contribute to the change in demand. For comparison, in 2009, the factor of investments in fixed assets acted towards the demand reduction, with also partially acting in this direction.

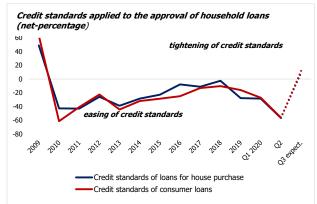


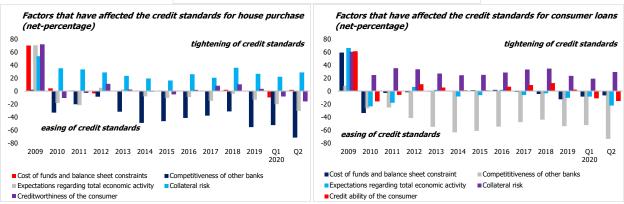
The net percentage is the difference between the sum of the percentages "significantly increased" and "partially increased" and the sum of the percentages "partially decreased" and "significantly decreased".

In the coming period, banks expect certain stabilization, expectating a net increase in demand for loans by households and enterprises.

Credit conditions

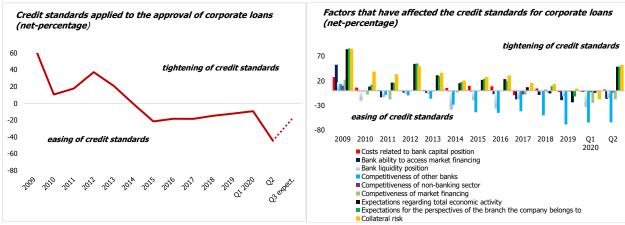
The credit conditions for enterprises and households in the second quarter of 2020 registered a significant net relaxation. These changes are consistent with the accommodative monetary policy and the greater flexibility in prudential regulation, as a reaction of the National Bank to mitigate the economic consequences of the health crisis. Consequently, in this survey, the percentage of banks which indicate that the changes in monetary policy affect their interest rate policy when approving corporate loans (from 24.8% to 53.2% of banks) as well as household loans (from 3% to 61% of banks) increased compared to the previous survey.





The net percentage is the difference between the sum of the percentages of "significantly tighter" and "partially tighter" and the sum of the percentages of "partly relaxed" and "significantly relaxed".

From the aspect of individual credit conditions, the interest rate remains the dominant credit condition in housing and consumer loans, where the largest net easing is observed. For comparison, in the crisis year 2009, a significant tightening of credit conditions was registered, with a gradual easing that began the following year. From the aspect of the factors that act towards the easing of the credit conditions in the housing and consumer loans, the competition from the other banks still remains the dominant factor, with intensified dynamics compared to the previous one. In terms of risk factors, although banks continue to indicate that expectations for overall economic activity as well as creditworthiness act towards relaxation of lending conditions, however, about 13% of banks indicate that these factors also act towards tightening of credit conditions, unlike the previous survey, when almost no bank acted in this direction. In the crisis year 2009, banks showed significantly increased risk perception in terms of all factors, while competition from other banks did not have a greater impact on credit conditions.



The net percentage is the difference between the sum of the percentages of "significantly tighter" and "partially tighter" and the sum of the percentages of "partly relaxed" and "significantly relaxed".

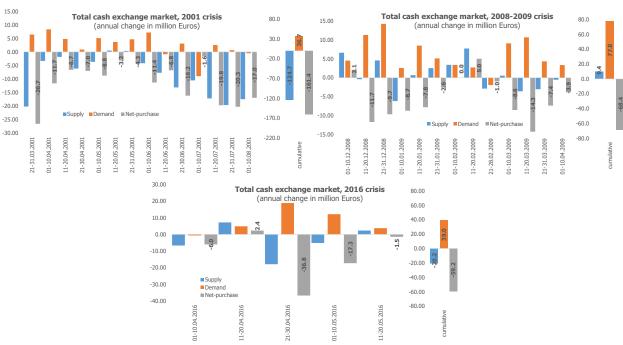
The change in the dominance of individual credit conditions is characteristic for companies. Namely, in accordance with the provided greater flexibility for the banks in changing the contractual conditions for loan repayment, in favor of the clients, in the second quarter greater net relaxation was registered in the loans maturity (a condition which in the last four years is almost unchanged) unlike previously, when it was mainly more pronounced at the interest rate. In terms of factors, competition from other banks remains a dominant factor that facilitates credit conditions. Similar to 2009, but with less intensity, the banks notice increased risk perception in the credit conditions for enterprises, with all factors in this group acting towards a net tightening of credit conditions.

From the aspect of the expectations for the next quarter, the banks indicate a slight net tightening of the credit conditions with the households in the third quarter, amid further net easing of the corporate credit conditions.

Annex 3. Effects of the COVID-19 pandemic on currency exchange operations with reference to previous crisis episodes

The past episodes of crises have shown that one of the important indicators of transmission channels of certain shocks in the Macedonian economy is the activity on the currency exchange market. Usually, this market segment shows the change in the sentiment and the confidence of the population, whose first and most often short-term reaction to a larger uncertainty is the increased demand for foreign currency. In such circumstances, the sensitivity of this component is pronounced, which is especially important given its importance for the current account position in the balance of payments. Namely, the cash flows from the exchange operations are a dominant component in the secondary income surplus, and it is also a category that in the past ten years finances on average 75% of the deficit in the trade of goods and services.



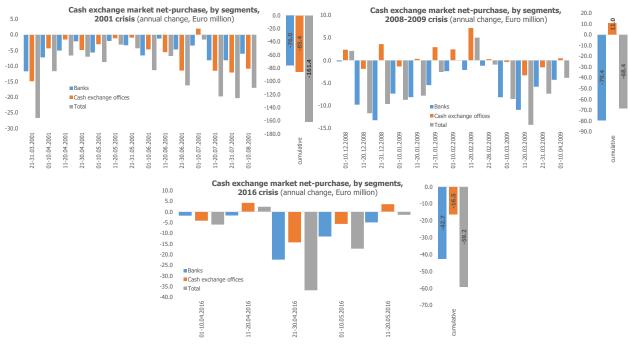


The analysis of previous crises with a negative reflection on the currency exchange operations generally indicates greater sensitivity on the demand side, **especially in the banking segment,** where the changed sentiment of the population is primarily felt. Demand-side pressures are evident in the three previous major crisis episodes the security crisis in 2001, the global economic crisis in 2008-2009 and the political crisis in 2016, although the effect of the 2001 security crisis on the foreign exchange market was more pronounced on the supply side. The second common feature in the reaction of the currency exchange market to these previous crises is the more pronounced reaction of the bank segment⁹¹, which is also a significantly smaller segment of the total currency exchange market, where the part of authorized currency exchange offices dominates. The decrease in the net purchase in the currency exchange operations is most often the driving factor for the annual fall in the total currency exchange operations, with the changes in the banks explaining 44.1% of the annual change in the net purchase in the 2001 crisis, during the 2008-2009 crisis the behavior of the banks' currency exchange operations fully explains the decrease in the net purchase, while in the acute phase of the political crisis in 2016, 72% of the reduction of the total net purchase is a reflection of the changes in the currency exchange segment with the banks.

⁹⁰ The cumulative is for the crisis period presented on each chart, or more specifically for the periods 21.03 - 10.08 2001, 01.12.2008 - 10.04.2009 and 01.04 - 20.05 2016.

⁹¹ The share of the net purchase with the segment of banks in stable periods is close to 10-15% of the total realized net purchase on the currency exchange market in the past five years.

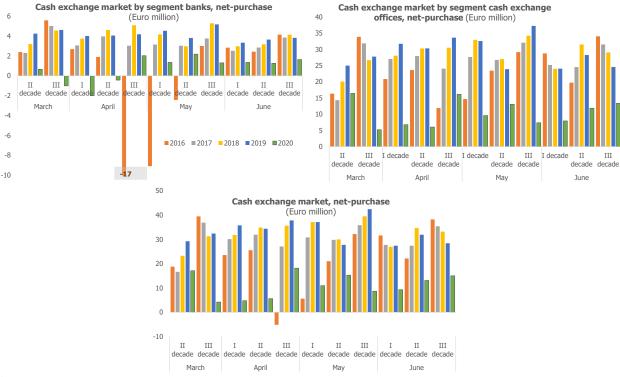
Chart 292



The crisis caused by the COVID-19 pandemic in early 2020 is a specific shock, a health crisis that has led to a synchronized global recession. Measures to prevent the spread of the virus, taken as well in our country, envisaged borders closure, restriction of the movement of the population, closure of social interaction activities. Hence, the economic effects are present on both the supply and the demand side, and the behavior of economic agents has been determined by the expectations for further development of the health crisis and its implications for their disposable income.

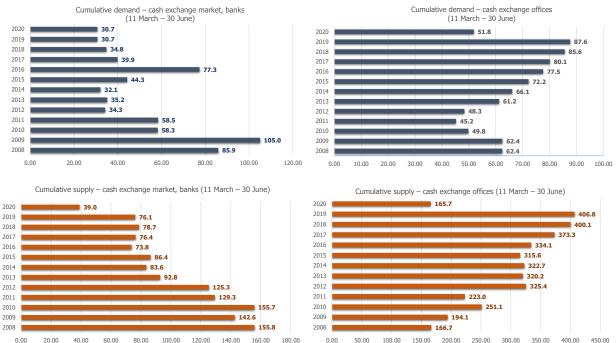
 $^{^{92}}$ The cumulative is for the crisis period presented on each chart, or more specifically for the periods 21.03 - 10.08 2001, 01.12.2008 - 10.04.2009 and 01.04 - 20.05 2016.

Chart 3



The effects of the pandemic on the Macedonian economy that are felt from mid-March on the currency exchange market as well, differs from those common for periods of uncertainty. From the second decade of March 2020, there was a visible decrease in the net purchase, with the net sales being realized in the banking segment, while the exchange offices realized net purchase, but lower compared to the previous years. Since the last decade of April, there has been some recovery in the two separate segments of the foreign exchange market, although the performance remains uncommongly low for this period of the year.



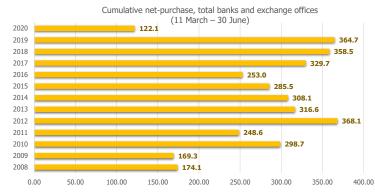


The reaction in the currency exchange market was specific compared to other crisis episodes, because of the absence of larger pressures on the demand for foreign currency, as opposed to the reduction of foreign currency supply throughout the period from the second decade of March to the last decade of June. Cumulatively for this period, the supply of foreign currency with the banks decreased by 48.8% compared to the same period of the previous year, and in the larger segment, with the exchange offices, the negative change was more pronounced and amounted to 59.3%. This high drop in supply is not characteristic, as the crisis episodes so far have reflected on the currency exchange market through an intense increase in demand for foreign currency, while larger adjustments on the supply side were not common. On the other hand, despite the current reaction to the demand in case of certain political or economic instability, often followed by speculation about the stability of the banking system and the domestic currency, the current situation caused by the pandemic of the COVID-19 virus did not increase demand for foreign assets in the currency exchange market. On the contrary, in the analyzed period, there are no pressures on the demand side at all. Compared to the same period last year, demand for foreign currency dropped by 30.2%, due to the reduced demand for foreign currency at exchange offices. The reasons for this reaction of the economic agents on the exchange market are due to the specific circumstances, where a large part of the inflows are a result of emigrants' remittances in cash, which in conditions of closed borders and limited movement were absent in this period. According to a World Bank study⁹³, the global crisis caused by the virus is expected to reduce remittances worldwide by about 20%, which would be

⁹³https://www.worldbank.org/en/news/press-release/2020/04/22/world-bank-predicts-sharpest-decline-of-remittances-in-recent-history?cid=ECR E NewsletterWeekly EN EXT&deliveryName=DM61330

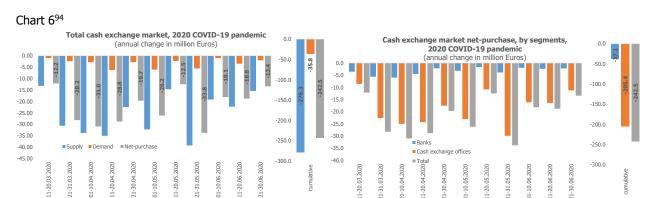
the deepest decrease in recent history. The expected synchronized reduction of economic activity in most countries, negatively affects employment and income globally, and thus the disposable income and the ability to send a significant portion of the income of expatriates back to the home economy in the form of official or informal remittances. Additionally, the current situation has a negative impact on temporary workers abroad due to the inability to travel and work in the period of ban on entry into EU countries, which are also the most common labor market for our temporary workers.

Chart 5



Source: NBRNM.

The decrease in the supply caused significantly weaker net inflows realized from the currency exchange operations in the period from March 11 to June 30, 2020, despite the reduced demand for foreign cash in the same period. Realization on a net basis is lower by 66.5% compared to the same period last year and represents only 38.4% of the average net purchase on the currency exchange market realized in the past five years.



Source: NBRNM.

The analysis of the effects of the COVID-19 pandemic on the supply and demand of the currency exchange market from the aspect of the previous crises indicates a specific reaction of the currency exchange market, uncharacteristic so far. A common reaction of the foreign exchange market to the previous crises is the growth of demand

⁹⁴ The cumulative is for the crisis period presented on each chart, or more specifically for the periods from 11.03 to 30.06 2020.

and pronounced sensitivity of the banking segment, as driving factors of negative changes. For the current crisis, a significant decrease in supply is evident, while there are no pressures on the demand side, with the currency exchange offices simultaneously being more suitable segment, where a large decrease in the net purchased effects is registered. There are some similarities with the 2001 security crisis, due to the effect of supply reduction in both crisis episodes.

Annex 4. Analysis of the impact of labor costs and margins on price movements in North Macedonia

Commodity prices, besides reflecting shifts in production costs (costs for factors of production and raw materials) include margins that companies add to their costs. Hence, the dynamics of margins is one of the indicators used to explain changes in inflation. **As part of this short analysis, a review of the shifts in labor costs and margins was made, in the context of their impact on the prices of final products in the domestic economy.**

Margins show the ratio between the final price and the marginal cost, on average, for each unit of product. As marginal cost data are not available, there are several alternative approaches to calculate margins in the literature. Some of them try to measure the margin through data at the level of an individual company (difference between revenue and variable costs), by solving the optimization problem of companies using different production functions (Cobb-Douglas, CES...) or through calculations using aggregates from national accounts and the labor force survey. For the needs of this analysis, the margins⁹⁵ are calculated by using two approaches: 1) as a ratio between the GDP deflator and unit labor costs ⁹⁶ and 2) as a ratio between the elasticity of production in relation to labor and the share of labor in production (Macallan et al., 2008)⁹⁷. The margins calculated according to both approaches are shown in Chart 1. Since both approaches give very similar results, only the indicator obtained with the first approach is further elaborated.

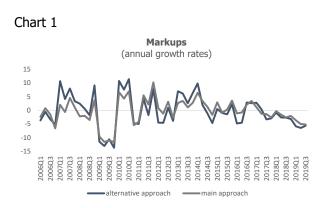
Given the purpose of the analysis, Chart 3 shows the changes in the GDP deflator, unit labor costs and changes in the average margin. As can be seen from the chart, unit labor costs increased (on average) in the period prior to the global financial crisis, a trend which is then replaced by low or negative growth rates, until 2015 when labor costs begin to grow again. Thereby, these changes in the indicator are mostly driven by the gross wage, which generally in the entire analyzed period has a higher growth than labor productivity (Chart

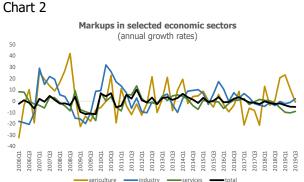
⁹⁵Margin calculations are based on indicative indicators of their movement using macroeconomic data that include both the public and private sectors in the domestic economy and as such, are not directly comparable to the profitability indicators of companies calculated from microeconomic data...

⁹⁶This approach has been used by the Central Bank of Spain (Quarterly Report on the Spanish Economy, Q2 2019, Annex 4: "Current shifts in labor costs and margins in the euro area") and by the National Bank of the North Macedonia (Quarterly Report, August 2015, Annex No. 4. "Comparison of the movement of world oil prices with the movement of selected indicators of domestic economic activity").

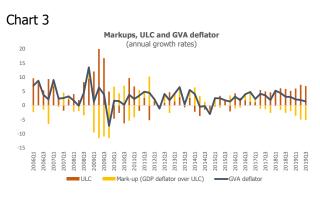
⁹⁷ Explained in the box at the end of the text.

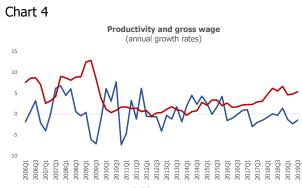
4). On the other hand, the average margin decreases rapidly during the crisis, growing (on average) in the following period, to decrease again from the second quarter of 2017 until the end of the analyzed period. Observed by sectors, this downward trend in margins in the last period is present in the more significant sectors in the economy, and above all in the services sector and industry (Chart 2). At the same time, it can be noticed that the changes in the margins in the services sector follow the changes in the average margin for the whole economy⁹⁸. Such shifts potentially lead to the conclusion that the companies do not transfer entirely the growth of unit labor costs to the prices of final products, but allows their margins to be reduced.





Source: State Statistical Office and National Bank calculations





Source: State Statistical Office and National Bank calculations

The comparison of labor cost movements with the core inflation rate measured through the consumer price index points to similar conclusions⁹⁹. Dynamically, for almost the entire period, the price changes do not follow changes in labor costs (Charts 5 and 6). All this indicates the existence of a certain restraint in the companies when directly transferring the burden of increased labor costs on the prices of their products¹⁰⁰. This

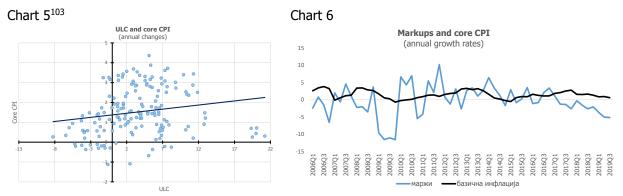
⁹⁸ Such trends are registered in both the United States and the euro area member states (Christopoulou and Vermeulen, 2008).

⁹⁹ The chart shows core inflation in order to isolate volatile prices.

¹⁰⁰ Peneva and Rudd (2015) examine the transferable effect of changes in labor costs on final prices using the TVP SV VAR (vector autoregressive model with time-varying parameters and stochastic volatility) for the United States, which shows that this effect is reduced or almost disappeared in the past few years.

is a particularly important indication if we take into account the relatively high share of labor costs in the total costs of companies in the Macedonian economy.¹⁰¹.

What are the causes of poor transmission? Although no consensus has yet been reached in the studies, much of the empirical research suggests a weak or weaken transfer of labor costs to final prices¹⁰². The most common reasons and potential explanations for such behavior are market conditions, i.e. the degree of market competition, the cyclical position of the economy, i.e. the uncertainty about changes in demand, and the ability of companies to fully or partially absorb the growth of wage costs by rationalization at other costs in their balance sheets. However, to answer this question a more comprehensive analysis based on theoretical models of company behavior is required.



Source: State Statistical Office and National Bank calculations

It is interesting to see whether and to what extent changes in margins are synchronized with changes in the economic cycle. According to Chart 7, the annual change in the average margin shows pro-cyclical features, i.e. it follows the changes in GDP. Such shifts in margins and GDP are also observed in the case of the euro area¹⁰⁴. However, in the Macedonian economy since 2018 there have been certain counter cyclical movements, i.e. growth of the domestic economy and decline of the average margin in the same period. A potential explanation for this divergent movement of GDP and margins is the increase in wages in the public sector and the minimum wage¹⁰⁵, as well as the growth of employment, which contributes to increase the cost pressures of companies, which in conditions of current market competition reduce the amount on the margin.

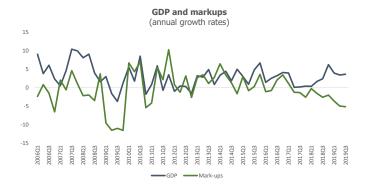
¹⁰¹ The research of Ramadani and Naumovski (2015) documents a share of 41.2% of labor costs in the total costs of companies as a result of a survey (made with a representative sample of 514 companies from four economic sectors - manufacturing, construction, trade and services in 2014).

¹⁰²Sbordone (2002), Emery and Chang (1996) и Bobeica et al. (2019).

¹⁰³ Unit labor costs are interpolated from quarterly to monthly frequency through the Chow-Lin method, in order to compare at the same monthly frequency with core inflation in the domestic economy.

¹⁰⁴Central Bank of Spain. Quarterly report on the Spanish economy, Q2 2019, Annex No.4. "Current shifts in labor costs and margins in the euro area."

¹⁰⁵Starting from September 2017, the amount of the minimum wage increased to Denar 17,300 in gross amount, i.e. 12,000 in net amount. The amount of the minimum wage started to increase in line with the increase for the previous year of the average paid wage in RNM, the consumer price index and the real GDP growth (with one third of the increase from each indicator, respectively), and an additional increase was made in December 2019 (for about 2000 denars net) up to Denar 14500 in net amount. Additionally, gross wages also increased as a result of the increase in the rates at which contributions for compulsory pension and disability insurance and compulsory health insurance are paid, and due to the introduction of progressive personal income tax rates in 2019. In addition to the increase in the minimum wage, the wages in the public sector (health, culture, social work, education, police, defense and the rest of the public sector) also increased.



Finally, we would summarize that the analysis is only a brief overview of the interrelationship between unit labor costs and the average margin, with the prices of final products in the domestic economy. Viewed dynamically, similarly in the case of the euro area, and in our economy, it can be noticed that companies allow adjustment in margins and do not fully incorporate changes in labor costs in the prices of final products. The reluctance of companies to transfer the burden of increased labor costs to the final consumer is basically related in the studies to the increasing level of market competition, uncertainty about future demand, the ability of companies to adjust balance sheets. However, it should be borne in mind that this is a relatively simple analytical framework, which does not examine the reasons for such behavior of companies, which requires a more in-depth analysis based on a theoretical framework for modeling company behavior, as well as the use of more granular databases.

Calculation of margins by solving the optimization problem of companies

Margin can also be calculated by setting and solving the optimization problem of companies, which consists of the goal: to maximize profits and minimize $costs^{106}$. Assuming that each company has a production denoted by y, which is obtained by using labor denoted by h and capital denoted by k, at prices p, w and rp, respectively, using production technology denoted by f(k, h) and following the demand for its products denoted by g(p):

$$\max py - wh - rpk$$
s.t. $y = f(h, k)$ и $y = g(p)$

a solution to this maximization can be reached by finding the first derivative for labor and capital $w=\frac{p}{\mu}f_h(h,k)$ and $\mathrm{r}p=\frac{p}{\mu}f_k(h,k)$, that is, an expression for their real prices, assuming that the limit multiplier is p/μ . Furthermore, by analogy and using the same production technology, the companies minimize the costs. Actually, the first derivative of the cost function C(w,rp,y) relative to the output level y, will give mathematical expression for the output cost on additional unit cost (marginal cost), MC:

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¹⁰⁶Macallan et al. (2008)

$$MC = \frac{\partial C(w, rp)}{\partial y} = w \frac{\partial h}{\partial y} + rp \frac{\partial k}{\partial y}$$

The obtained result will be combined together with the total derivative of the output function (technology) $dy = f_h(h,k)dh + f_k(h,k)dk$ and the first derivative of the labor and capital from the profit maximization, in order to obtain the margin:

$$MC = \frac{w\partial h + rp\partial k}{f_h(h,k)dh + f_k(h,k)dk} = \frac{\frac{p}{\mu}f_h(h,k)dh + \frac{p}{\mu}f_k(h,k)dk}{f_h(h,k)dh + f_k(h,k)dk} = \frac{p}{\mu}$$

where

$$\mu = \frac{p}{MC}$$
.

Using the first labor derivative $w = \frac{p}{\mu} f_h(h, k)$, the margin can be presented also as

 $\mu = \frac{p}{w} f_h(h,k) = \frac{pf_h(h,k)}{w} \frac{hy}{hy} = \frac{\varepsilon}{s}$, i.e. as a ratio between the output elasticity relative to labour $(\varepsilon)^{107}$ and the share of the labour in the output (s). Having output functions where ε is constant (such as the well-known Cobb-Douglas¹⁰⁸), the margine is inversive proportionally to the share of the output labor (s). According to economic theory, the margine can be measured as a ratio between the output elacticity relative to any input in production, but the thing that is commonly used is the labor¹⁰⁹.

 $^{^{107}}$ For the output elasticity relative to labor, the average of the directions (0.45, 0.60 and 0.67) by Jovanovic and Kabashi (2011), i.e. 0.6 is used.

 $^{^{108}}y = zh^{\varepsilon}k^{1-\varepsilon}$ where ε is a constant.

¹⁰⁹ Nekarda and Ramey (2019) offer a more detailed explanation.