



NATIONAL BANK OF RWANDA
BANKI NKURU Y'U RWANDA



MONETARY POLICY REPORT

February 2023



NBR IDENTITY STATEMENT

The National Bank of Rwanda strives to be a World class Central Bank contributing to economic growth & development, by using robust monetary policy tools to maintain stable market prices. The Bank ensures financial stability in a free market economy as it embraces innovation, inclusiveness, and economic integration.



VISION

To become a World Class Central Bank



MISSION

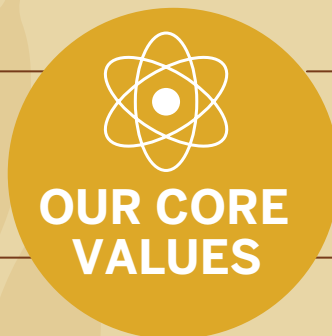
To ensure Price Stability and a Sound Financial System

INTEGRITY

We uphold high moral, ethical and professional standards for our people, systems and data

MUTUAL-RESPECT AND TEAM-WORK

We keep ourselves in high spirit, committed to each other for success



OUR CORE VALUES

ACCOUNTABILITY

We are result-focused and transparent, and we reward according to performance

EXCELLENCE

We passionately strive to deliver quality services in a timely and cost effective manner. We continuously seek improvement by encouraging new ideas and welcoming feedback that adds value to customer services.

NBR

Key Strategic Focus

(2017/18-2023/24)

The National Bank of Rwanda strategic plan sets out six strategic focus areas in which the Bank must excel to achieve its mission and vision. The strategy was designed based on Rwanda's aspirations for economic transformation in line with the National Strategy for Transformation (NST1).



SUMMARY OF NBR's MONETARY POLICY STRATEGY



OBJECTIVE

Monetary Policy shall maintain price stability by keeping headline consumer price inflation within the band of 2% and 8%, with a focus of having it close to 5% in the medium term. In line with best practices, price stability is the primary and overriding objective of the NBR's monetary policy.

NBR shall also ensure financial stability as well as support other general objectives for economic development. NBR will set the Central Bank Rate (CBR) to stabilize inflation in the medium term.

The monetary policy framework is forward looking, therefore relying on the projections of inflation, taking into account economic developments.



DECISION-MAKING PROCESS

The Monetary Policy Committee (MPC) usually holds four quarterly meetings per year, where it decides on the monetary policy stance by setting the CBR to stabilize medium term inflation. Before the MPC decision, there is extensive assessment and economic analysis to guide discussions.



COMMUNICATION

A press release with the monetary policy decision and its main rationales is always published the day after the MPC decision and the Governor holds a press conference. The monetary policy report, detailing recent economic developments, projections, and reasons behind the decision is also published at the same time as the press release.

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MONETARY POLICY COMMITTEE DECISION, CURRENT OUTLOOK, AND RISKS

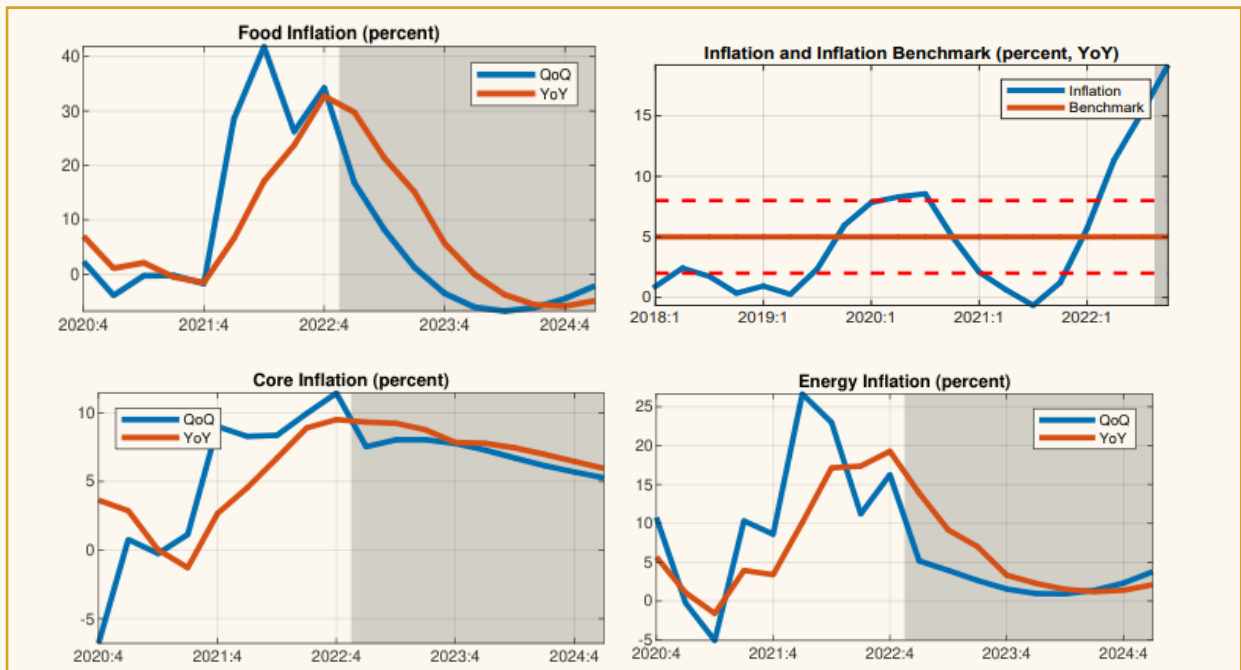
The Monetary Policy Committee (MPC) meeting convened on the 14th of February 2023 to review the impact of its previous decisions, assess recent global and domestic economic developments, and take policy decisions for the following three months. Analysis indicates that inflationary pressures remain high, mainly due to continued global economic challenges as well as lower domestic agricultural production. As reported in our previous publications, the war between Russia and Ukraine exacerbated an already existing increasing trend of commodity prices. In addition, lower domestic food supply linked to unfavorable weather, and increased prices of inputs led to a high increase in food prices in 2022. Going forward, inflationary pressures are expected to remain high in the first half of 2023, before converging towards the target band (below 8 percent) at the end of the year, reflecting the effect of NBR monetary policy tightening and other policy measures. The projected decline assumes a good performance of the agriculture sector and a decline in international commodity prices.

Based on the prevailing economic conditions, the MPC decided to increase the Central Bank Rate (CBR) from 6.5 to 7 percent, to continue the fight against inflationary pressures affecting consumers' purchasing power. NBR remains committed to achieve price stability, by bringing inflation within the medium-term objective band of 2 – 8 percent.

Consistently, Rwanda's headline inflation is projected to ease from the 2022Q4 level. The February 2023 projections indicate that core inflation (core excluding food and beverages) will remain elevated in the first half of the year following the costs of domestic factors of production are projected to be inflationary but expected to reduce later and be neutral in 2024 as domestic cost pressures moderate.

An increase recorded in food prices in 2022 reflected a rise in international food prices and less supply in domestic crop production. However, pressures on international food prices have started to reduce and the domestic food supply is expected to increase. Therefore, food inflation is projected to decline but remain elevated until 2023Q3.

Upward pressures recorded on energy inflation in 2022 are likely to dissipate in 2023, mainly originating from a decline in international oil prices.



I. GLOBAL ECONOMIC DEVELOPMENTS AND OUTLOOK

According to the International Monetary Fund's (IMF) World Economic Outlook (WEO) update published in January 2023, the world economic growth is projected to slow down to 2.9 percent in 2023, from 3.4 percent in 2022. Growth projections for 2023 are revised up by 0.2 percentage points relative to October 2022 projections, reflecting upward revision for both advanced economies, and emerging market and developing economies.

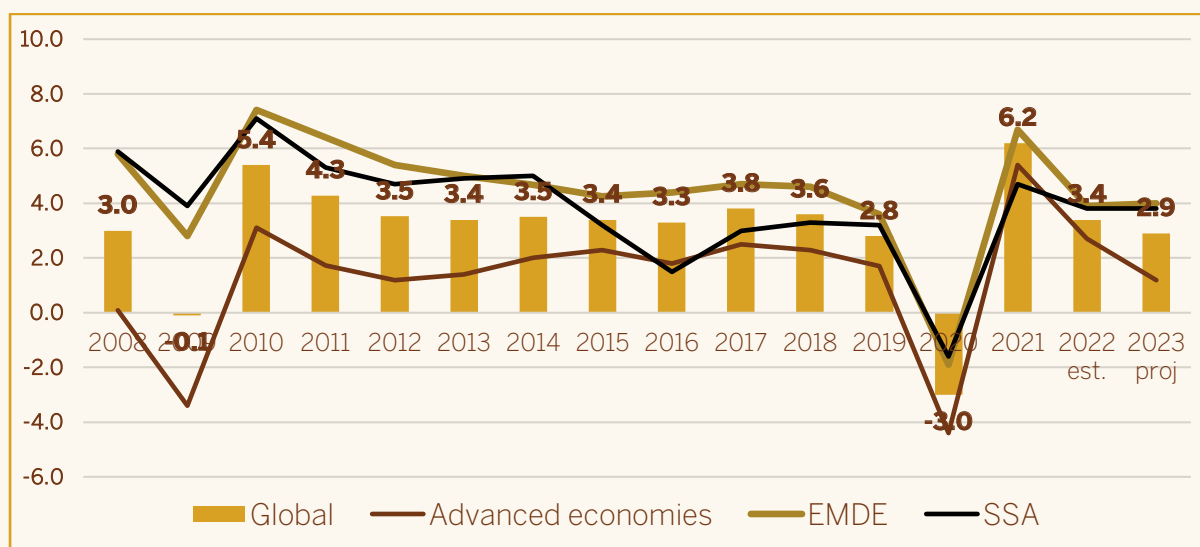
The global economy is projected to slow down in 2023

According to the International Monetary Fund's (IMF) World Economic Outlook (WEO) update published in January 2022, world economic growth is projected to slow down to 2.9 percent in 2023 from 3.4 percent in 2022. Growth projections for 2023 are revised up by 0.2 percentage points relative to October 2022 projections, reflecting upward revision for both advanced economies and emerging market and developing economies.

Growth estimates for 2022 reflect positive surprises and greater-than-expected resilience in numerous economies, while low growth forecasts for 2023 reflect the rise in central bank rates to fight inflation, especially in advanced economies as well as the war in Ukraine. The global fight against inflation, Russia's war in Ukraine, and a resurgence of COVID-19 in China weighed on global economic activity in 2022, but China re-opening to the world, a strong labor market with cooling inflation, and a mild winter in Europe keeping energy costs down have all helped to avoid the worst.

Economic growth in advanced economies is projected to slow down to 1.2 percent in 2023 after 2.7 percent in 2022, with a downward revision of 0.9 percentage points for the United Kingdom, and about 90 percent of advanced economies are projected to decline in growth.

Chart 1: GDP growth and projections across regional blocks (% change)



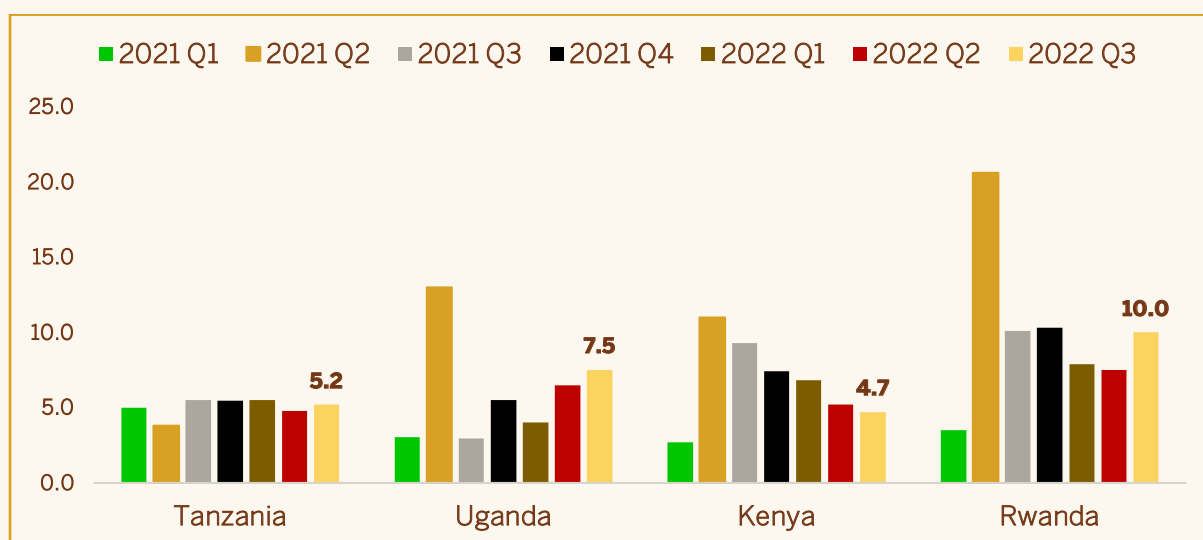
Source: IMF WEO update, January 2023

Emerging market and developing economies are projected to grow moderately from 3.9 percent in 2022 to 4.0 percent in 2023, with an upward revision of 0.3 percent relative to October projections, and about a half of emerging market and developing economies have lower growth projections in 2023 than in 2022.

The Sub-Saharan African economy is projected to remain moderate at 3.8 percent in 2023, amid prolonged fallout from the Covid-19 pandemic, although with a modest upward revision of 0.1 percentage point relative to October projections, reflecting Nigeria's projected high growth in 2023 due to measures taken to address insecurity issues in the oil sector. In South Africa, economic growth is project to slow to 1.2 percent in 2023, reflecting weaker external demand, power shortages, and structural constraints.

The economic performance in the East African Community (EAC-5) countries is projected at 5.3 percent in 2023, from 4.9 percent estimates in 2022, following a projected upgrade for all member countries compared to the previous year.

Chart 2 - Economic growth in EAC-5 countries (% change)



Source: Country bureau of statistics

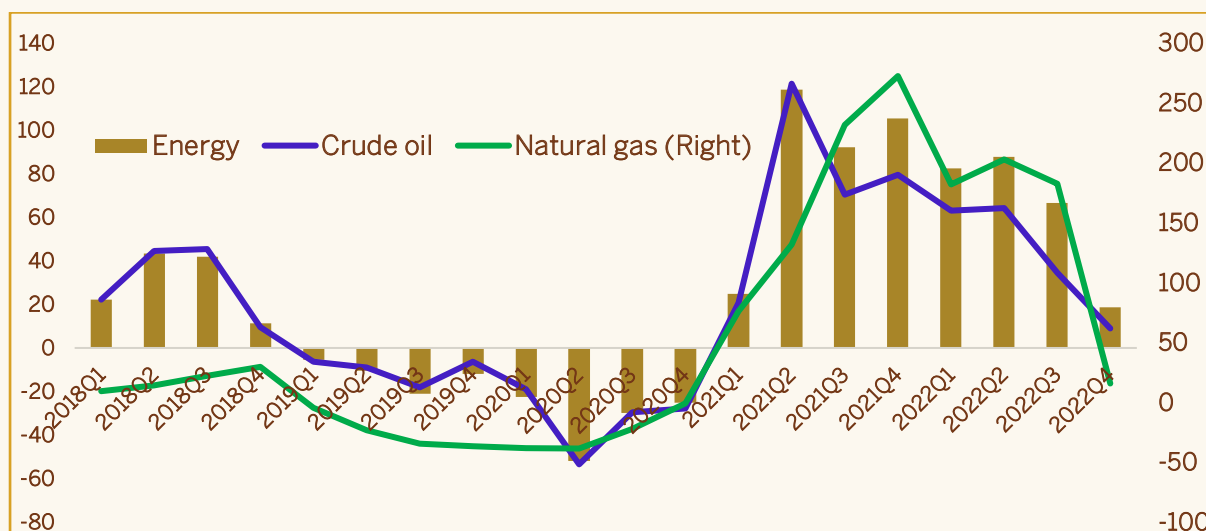
Several risks however continue to weigh on the global outlook, lowering growth, while in a number of cases, adding further to inflation, and downside risks to the outlook dominate, as outlined here below:

- Higher interest rates to fight persisting inflation;
- Severe health outcomes in China which could hold back the recovery;
- A possible escalation of Russia's war in Ukraine;
- Tighter global financial conditions which could worsen debt distress;
- Financial markets could suddenly reprice in response to adverse inflation news, and
- Further geopolitical fragmentation that could hamper economic progress disrupting trade and international cooperation.

Commodity prices slowed down in 2022Q4, and projected to decline in 2023 due to the slowing global demand

In 2022Q4 (y-o-y), global commodity prices increased at a slowing pace, reflecting slowing global demand. Global energy prices increased by 18.7 percent after surging by 105.5 percent in 2021Q4.

Chart 3 – Energy commodity prices index in nominal US dollar (2010=100)



Source: World Bank Commodity Prices, January 2023

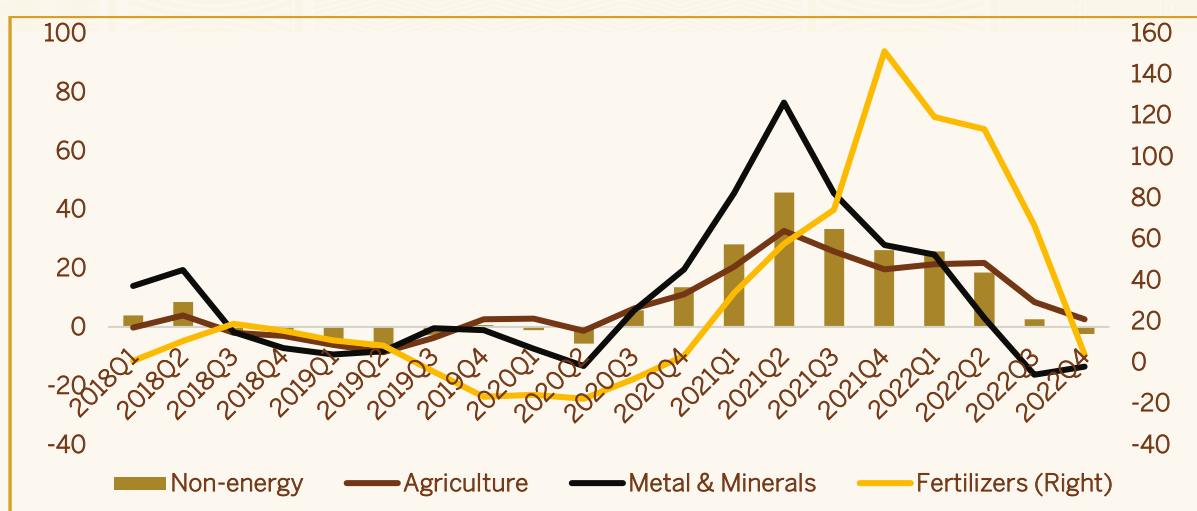
In 2022Q4, crude oil prices increased by 8.9 percent compared to a surge of 79.4 percent in 2021Q4. In January 2023, IMF projects oil prices to drop by 16.2 percent in 2023, from USD 97.1/barrel in 2022 to USD 81.4/barrel in 2023, amid slowing global growth.

Natural gas prices increased to 15.9 percent in 2022Q4 compared to a surge of 272.4 percent in 2021Q4, following a mild winter in Europe which kept energy prices down. World Bank projects natural gas prices to drop by 15.2 percent in 2023, from 115.4 percent recorded in 2022.

Non-energy commodity prices dropped by 2.4 percent in 2022Q4, after increasing by 26.1 percent in 2021Q4, owing largely to declining metals & mineral prices, and low prices of agricultural commodities as well as easing prices for fertilizers.

In 2022Q4, average prices for agricultural commodities slightly increased by 2.6 percent after 19.6 percent in 2021Q4, attributed to decreasing beverages prices. Agricultural commodities prices are projected to drop by 4.5 percent in 2023 and drop further by 0.2 percent in 2024 after increasing by 13.3 percent in 2022.

Chart 4: Non-energy commodity price developments (USD/barrel)



Source: World Bank commodity prices, January 2023

Food prices increased by 8.8 percent in 2022Q4 compared to 21.7 percent in 2021Q4, of which grains, (+19.9 percent), other foods (+13.3 percent), and oils & meals (-1.6 percent). Global food prices are projected to drop by 6.2 percent in 2023 and by 0.4 percent in 2024 after increasing by 17.9 percent in 2022, reflecting expectations of improved yields, continuation of Ukraine's return to the global market, and weakening demand in response to the slowdown in the global economy.

Beverages prices dropped by 6.6 percent in 2022Q4 after rising by 30.2 percent in 2021Q4. Coffee prices are projected to drop by 6.8 percent in 2023 and drop further by 1.6 percent in 2024 after increasing by 15.3 percent in 2022. Tea prices (Mombasa) dropped by 2.3 percent in 2022Q4 after increasing by 27.3 percent in 2021Q4. Tea prices are projected to drop by 9.7 percent in 2023 after increasing by 15.9 percent in 2022, and projected to slightly increase by 0.7 percent in 2024.

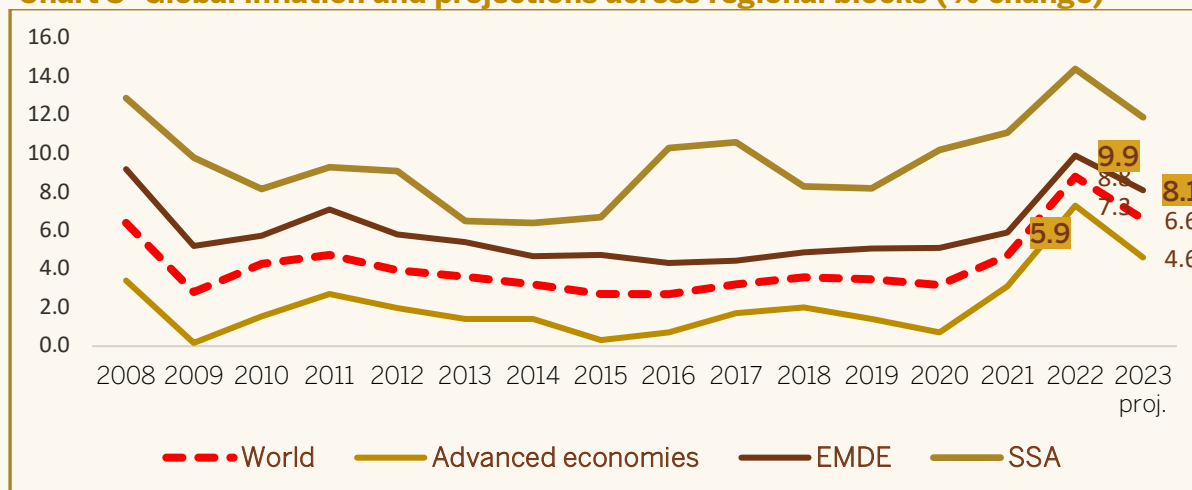
Metals & minerals prices went down by 13.5 percent in 2022Q4, after increasing by 27.8 percent in 2021Q4, reflecting slowing global demand. Tin prices dropped by 44.3 percent in 2022Q4 compared to a surge of 106.1 percent in 2021Q4, undermined by a reduced demand from the electronics sector. World Bank projected metal and mineral prices to drop by 15.2 percent in 2023 after decreasing by 1.2 percent in 2022.

Prices for fertilizers slightly increased by 3.7 percent in 2022Q4 after a surge of 151.1 percent in 2021Q4, following easing supply disruptions. The World Bank projects fertilizers prices to drop by 12.4 percent in 2023 after increasing by 62.6 percent in 2022, as supply disruptions ease gradually.

Global inflation is expected to ease in 2023 after rising in 2022

World annual average inflation is projected to fall from 8.8 percent in 2022 to 6.6 percent in 2023, above pre-pandemic (2007-2019) levels of about 3.5 percent, where about 84 percent of countries are expected to have lower headline inflation in 2023 than in 2022. The projected deflation partly reflects declining international fuel and non-fuel commodity prices due to weaker global demand. It also reflects the cooling effects of monetary policy tightening on underlying (core) inflation, which is globally expected to decline from 6.9 percent in the fourth quarter of 2022 to 4.5 percent by fourth quarter of 2023.

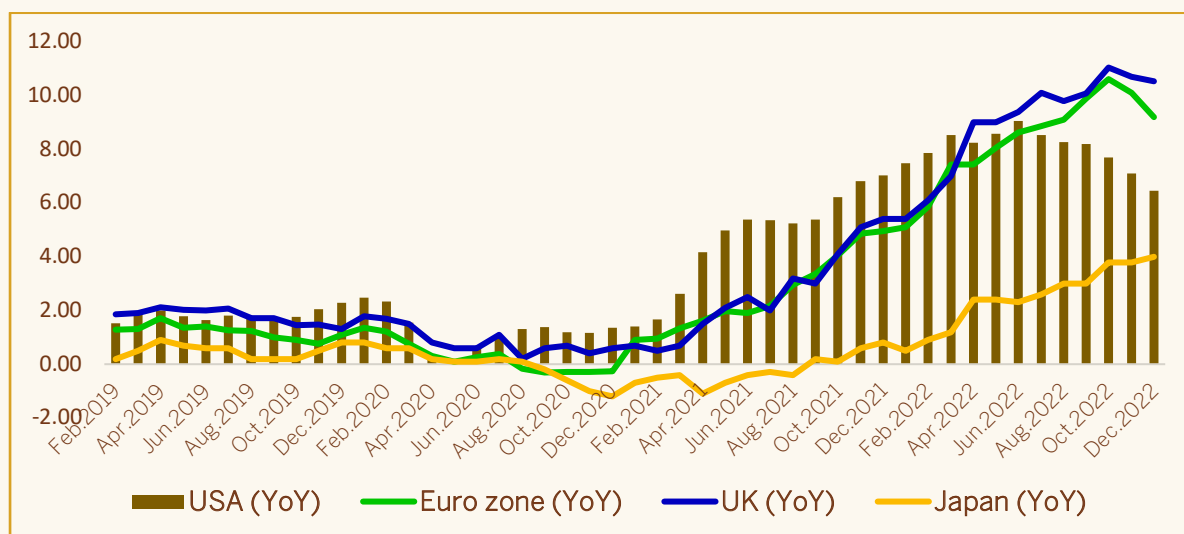
Chart 5- Global inflation and projections across regional blocks (% change)



Source: IMF, WEO January 2023 update

In advanced economies, consumer price inflation is projected to ease to 4.6 percent in 2023 (0.2 percentage points higher than in October 2022 projections), from 7.3 percent in 2022.

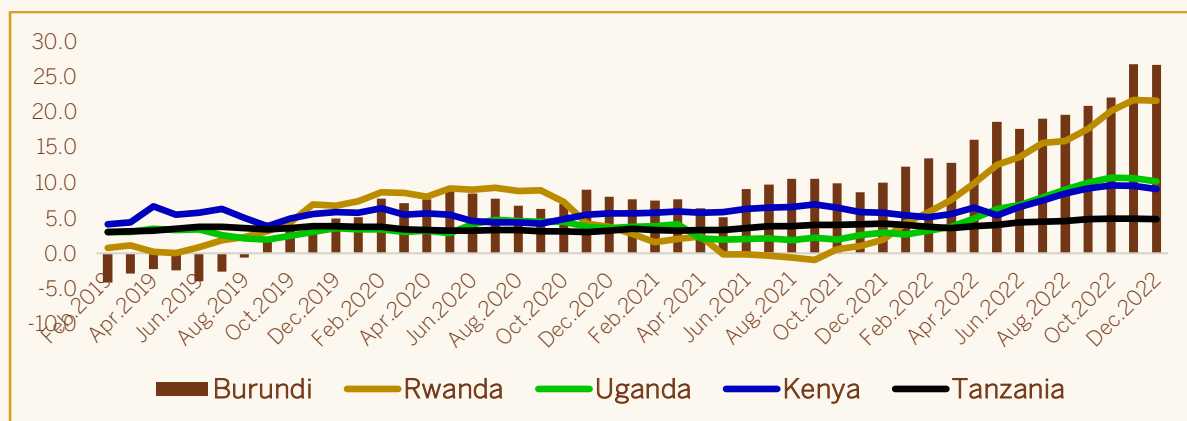
Chart 6- Annual headline inflation developments (percent change)



Source: Country Bureau of statistics

In Sub-Saharan Africa, annual headline inflation is projected to rise to a double digit of 14.4 percent in 2022, from 11.1 percent in 2021, following the projected higher inflation rates in Zimbabwe (284.9 percent), Ethiopia (33.6 percent), Ghana (27.2 percent) and Angola (21.7 percent). In some Sub-Saharan African countries, food prices have increased significantly, amid local shortages and the rise in global food prices. In the EAC-5 countries, annual average inflation is projected to ease to 6.3 percent in 2023 from 10.3 percent in 2022, following projected easing across the region.

Chart 7- Annual Headline Inflation developments (percent change)



Source: Country Bureau of statistics

Monetary conditions tighten globally amid heightened inflation risks

At the beginning of 2022 most advanced economies as well as some emerging market and developing economies started monetary policy tightening to help inflation return to central bank targets. The Fed has tightened seven times since the beginning of 2022, the Bank of England has increased its bank rate eight times in 2022 following another hike at the end of 2021, and ECB has increased its bank rate four times.

The 10-Year government bond rate increased in the United States, United Kingdom, Eurozone and Japan to 3.875 percent, 3.672 percent, 2.571 percent and 0.413 percent, respectively, from 0.971 percent, 1.510 percent, -0.177 percent and 0.065 percent in December 2021.

On the foreign exchange market, the US dollar is appreciating against all major currencies, notably the Japanese Yen, the British Pound, the Euro, and the Chinese Yuan. By end of December 2022 (y-o-y), the US dollar appreciated by 15.93 percent against the Japanese Yen, by 13.61 percent against the British pound, by 8.09 percent against the Euro, and by 8.25 percent against the Chinese Yuan. It is estimated that more than half the rise in the dollar in 2022 could be explained by the Fed's comparatively aggressive monetary tightening.

II. EXTERNAL SECTOR DEVELOPMENTS

Rwanda's international trade recovery continued in 2022.

In 2022, merchandise exports¹ rose by 31.4 percent amounting to USD 1,534.3 million, up from USD 1,167.8 million recorded in 2021. The increase is owed mainly to rising global commodity prices and good performance of manufacturing exports.

Specifically, receipts from the traditional exports grew by 21.3 percent (y-o-y) in 2022, amounting to USD 399.9 million, up from USD 329.8 million in 2021 driven by increased receipts from minerals (+36.4%), tea (+10.2%) and coffee (+6.9%). However, it is important to note that due to declining global mineral prices in the second half of 2022, export revenues from minerals in the last quarter of 2022 declined compared to the same period of last year.

Furthermore, non-traditional exports rose by 26.7 percent in 2022, registering USD 349.7 million from USD 276.0 million a year ago, mainly attributed to increased manufacturing exports of construction materials notably cement (93.0%) and iron and steel (+42.1%). The increase is also coming from surged exports of food products such as milling products (+25.7%), vegetable oil (+209.1%), and edible fruits (+29.5%) which offset the decline in edible vegetables (-35.5%) and flowers (-45.7%).

Lastly, receipts from re-exported products increased by 39.3 percent year-on-year in 2022, standing at USD 654.1 million from USD 469.5 million recorded in 2021, owing to increased revenues from fuel products due to higher global oil prices combined with a high demand for petroleum and food products, which represent the highest share of these re-exports, to the region. Exports revenues from Informal Cross-Border Trade (ICBT) amounted to USD 130.7 million in 2022 from USD 92.5 million in 2021, reflecting the ease of COVID-19 travel restrictions, which has improved cross-border movements.

On the other hand, merchandise imports rose by 23.6 percent amounting to USD 3,955.2 million in 2022, up from USD 3,201.0 million a year earlier mainly driven by higher international commodity and fuel prices combined with the recovery of domestic economic activities. Specifically, energy imports rose by 85.3 percent due to continued higher global oil prices compared to year earlier, followed by consumer goods (+21.3% percent) on rising demand of food products, intermediate goods (+17.7%) percent). As a result, Rwanda's merchandise trade deficit amounted to USD 2,420.8 million in 2022, up from USD 2,033.1million in 2021Q4, representing an increase of 19.1 percent.

¹ Merchandise exports/ imports refers to exports/imports excluding gold. It includes formal exports and informal cross-border trade (ICBT).

III. DOMESTIC ECONOMIC DEVELOPMENTS

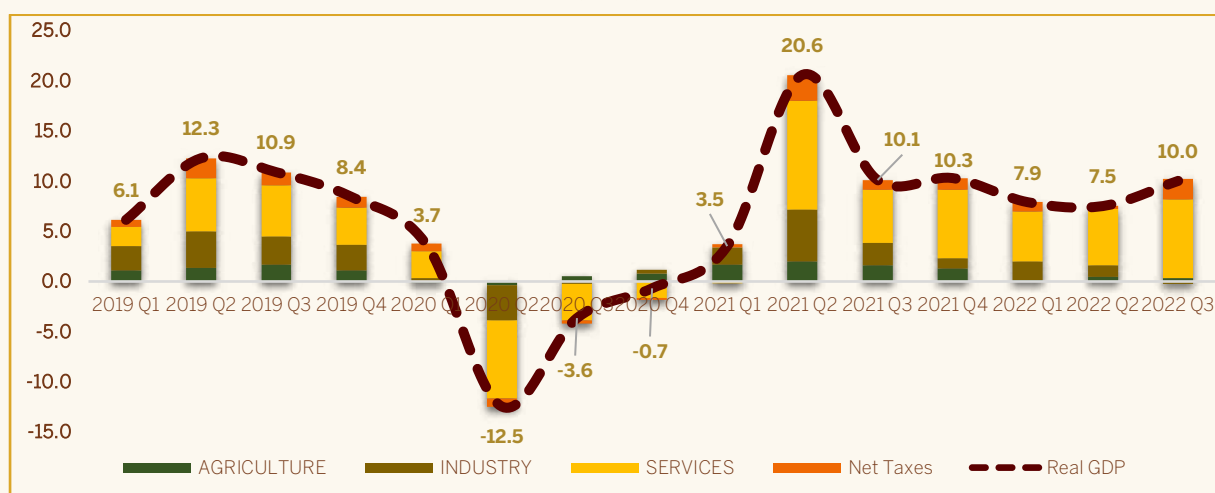
3.1 Economic growth in 2022

Rwanda's economy performed well in 2022 despite external and domestic shocks. Real GDP growth in the first three quarters of 2022 was 8.5 percent, following a 10.9 percent increase in 2021 and a 3.4 percent contraction in 2020. This momentum was maintained in 2022Q4, as evidenced by high frequency indicators.

The third quarter of 2022 saw strong economic growth despite weak industrial and agricultural production.

Rwanda's economy grew by 10.0 percent in 2022Q3 year on year and 3.7 percent quarter on quarter, owing primarily to strong performance in the service sector.

Chart 8: Real Gross Domestic Product (y-o-y, percentage change)



Source: National Institute of Statistics of Rwanda

The tourism industry's robust recovery in 2022, as well as steady improvement in trade services, information and communication, public administration, and education, form the backbone of the services sector's sustained solid performance. In 2022Q3, these service activities accounted for 87 percent of the services sector's 16.6 percent year on year growth. The growth in the tourism industry is evidenced by a sustained big number of tourists in 2022Q3, which contributed to high growth in transport services (+26.2%), hotels and restaurants (+90.2%), and travel agents and tour operators (+39.9%). International tourists increased by 986.4 percent year on year in 2022Q3 and 25.8 percent compared to the previous quarter. This pattern is consistent with the global recovery of tourism. According to UNWTO, more than 900 million tourists traveled abroad in 2022, a twofold increase from 2021 but still 63% below pre-pandemic levels. This indicates that tourism is still on track to reach the pre-pandemic level or full recovery by 2024.

The industrial sector contracted by 1.2 percent in 2022Q3 because of poor performance of the construction industry (-17.4 percent) that represents 36 percent of the industry sector; following the completion of large infrastructure projects, including projects related to the CHOGM meeting preparation and Integrated Development Program (IDP) model projects such as Kinigi and Minini, as well as affordable housing projects in Kabeza and Gahanga.

The bad performance of the construction industry outweighed the manufacturing sector's strong performance. This performance was primarily driven by increases in the production of food processing industries (+11.2 percent), brewery industries (+8.6 percent), textiles industries (+24.3 percent), and Chemicals, rubber, and plastic products (+21.3 percent), which counted for 86 percent of the overall growth in manufacturing industries (+9.4 percent).

The mining subsector experienced a slowdown due to falling mineral prices globally (+4.9 percent in 2022Q3 vs. +29.6 percent in 2021Q3). The latter fell by 16.3 percent in 2022Q3 after rising by 45.5 percent in 2021Q3.

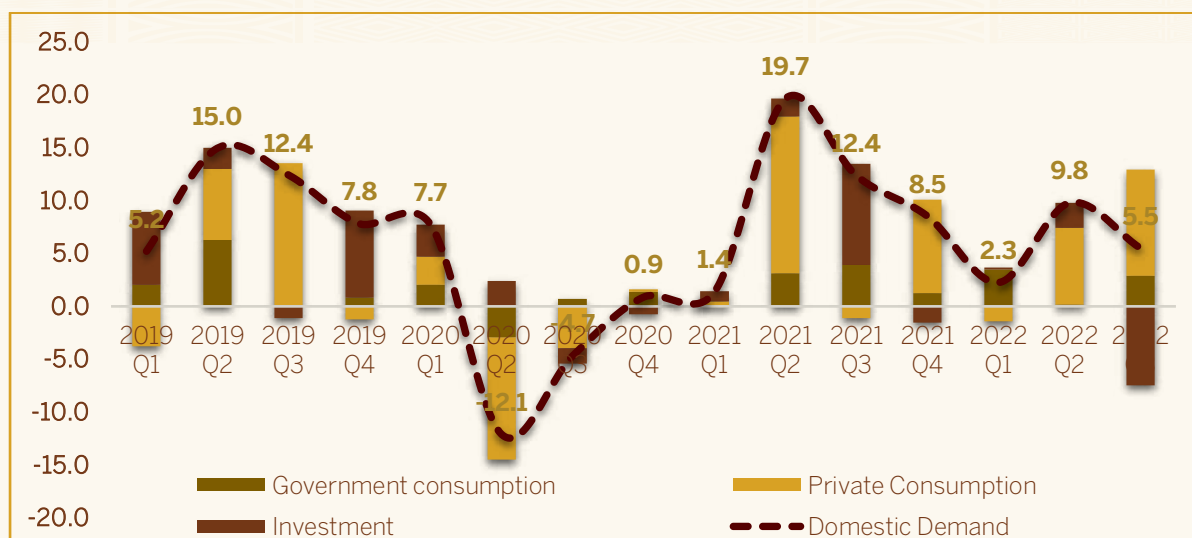
Agriculture sector's growth slowed down from 6.4 percent in 2021Q3 to 1.4 percent in 2022Q3, following the decline in food and export crops production by 0.6 percent in 2022Q3 which outweighed the good performance of the livestock (+8.3 percent), forest (+4.1 percent), and fishing (+3.9 percent) subsectors given their combined share of the agriculture sector of 69.3 percent.

Moderate growth of the domestic demand.

Domestic demand expanded moderately in 2022Q3 (+5.5 percent versus +12.4 percent in 2021Q3) as private consumption increased while investment decreased. Following a sustained economic recovery and extensive relaxation of COVID-19 restriction measures, consumer confidence increased, supporting private consumption. The latter increased by 16.7 percent after contracting by 1.6 percent in 2021Q3. Furthermore, government consumption increased by 18.2 percent on top of the previous 28.3 percent. As a result, total consumption increased by 17.1 percent in 2022Q3, up from 1.7 percent in 2021Q3.

Construction investment, which accounted for 67.8% of all investments, was crucial to Rwandan economy's recovery from COVID-19 in 2021. After experiencing a boom in 2021, construction investment started to slow down in 2022. In this context, the growth of construction investment decreased by 17.5% in the third quarter of 2022 from an increase of 15.1% in the same quarter of 2021.

Chart 9: Domestic demand (percentage change)



Source: National Institute of Statistics of Rwanda

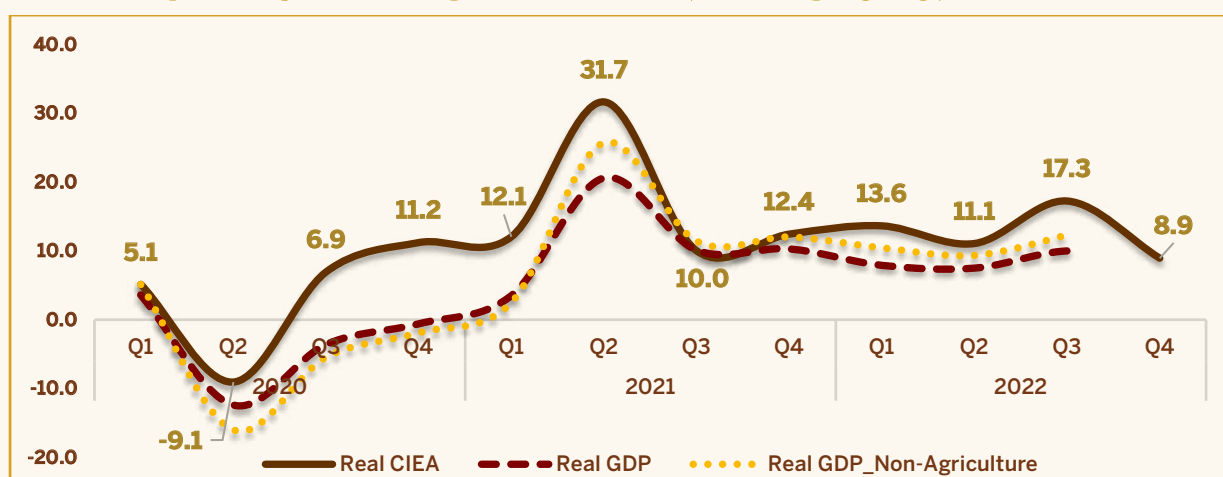
3.2 High frequency indicators in the fourth quarter of 2022

The evolution of high frequency indicators points to strong economic growth momentum in 2022Q4, despite weak agricultural performance.

High-frequency indicators point to continued solid economic growth in 2022Q4.

Aggregate demand expanded in 2022Q4, albeit at a slightly slower pace. In 2022Q4, the Composite Index of Economic Activities (CIEA) increased by 8.9 percent, the slowest rate since 2020Q4.

Chart 10: Quarterly real GDP growth vs CIEA (% change, y-o-y)

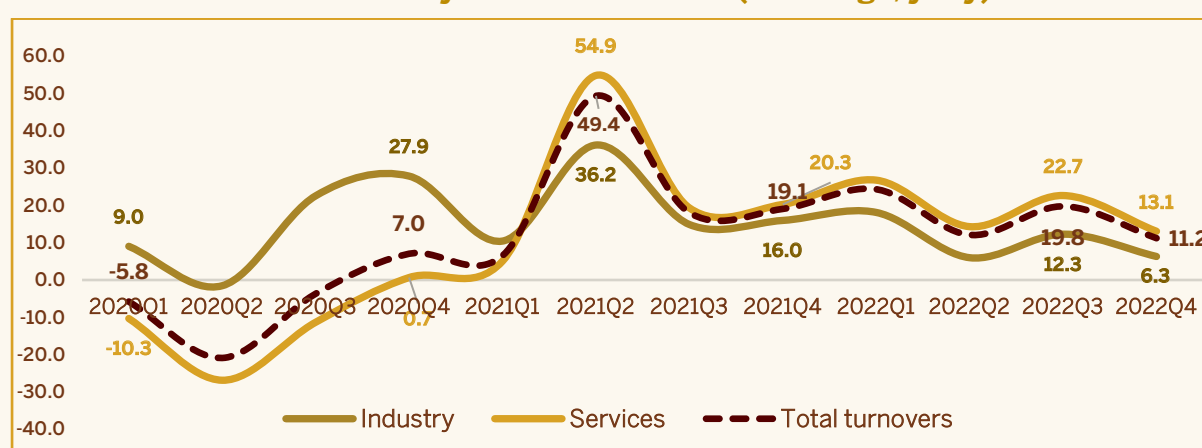


Source: NBR, Monetary Policy Department

The expansion of aggregate demand is reflected by high growth of total turnovers of industry and services sectors (+11.2 percent), exports (+16.2 percent) and credit to the private sector (+13.1 percent), while imports grew at a slower rate of 4.4 percent.

The services sector increased by 13.1%, with tourism-related services continuing to play a significant role. In 2022Q4, sales of transportation services, hotels and restaurants, and art, entertainment, and recreation activities increased by 45.5 percent, 28.5 percent, and 77.3 percent, respectively. The expansion of these services corresponds to the growing number of international tourists, who totaled approximately 217 thousand in 2022Q4, including over 8000 MICE delegates. Profitable business in trade services (+7.9 percent), financial services (+20.2 percent), public sector (+38.5 percent), and administration and support services (+45.4 percent) also contributed to the services sector's strong performance.

Chart 11: Turnovers of industry & services sectors (% change, y-o-y)



Source: NBR, Monetary Policy Department

The performance of the industry sector was moderate, with total turnover increasing by 6.3 percent. This slowdown is primarily due to slowing sales in the manufacturing and construction subsectors, as well as the mining industry. Construction companies' sales increased at a slow rate of 6.0 percent in 2022Q4 due to a softening of construction investments. Manufacturing industries saw a 3.0 percent increase in revenue as the food processing, brewery, and construction material industries faced the challenge of high production costs. The latter inflated as a result of high shipping costs and high global inflation, which made inputs more expensive. Due to the drop in metal and mineral prices on the international market, the mining subsector's turnover fell by 2.8 percent. Metal and mineral price index fell by 13.5 percent in 2022Q4 after increasing by 27.8 percent in 2021Q4.

Overall, though at a slower pace, the performance of the industry and services sectors remained relatively strong in 2022Q4, outweighing the poor performance of the agriculture sector. This ensures that economic growth in the fourth quarter of 2022 will be strong, and annual growth will exceed the initial projection of 6.8 percent.

IV. INFLATION DEVELOPMENTS AND OUTLOOK

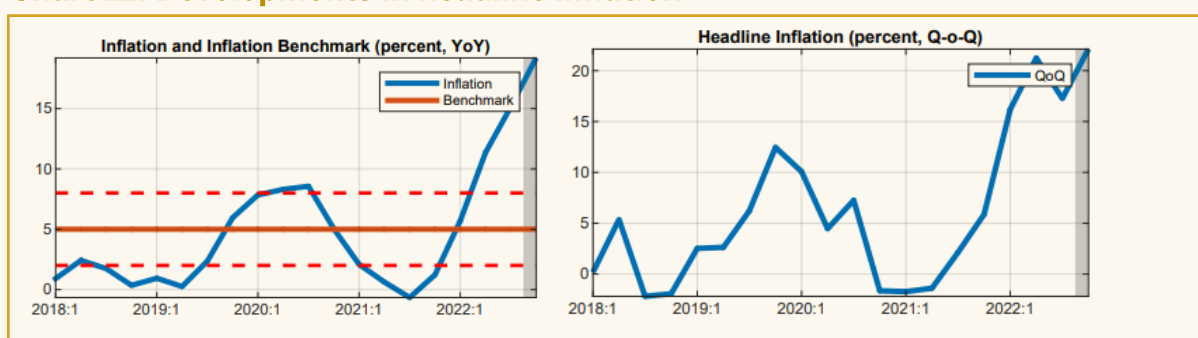
4.1 INFLATION DEVELOPMENTS

In 2022Q4, headline inflation (y-o-y) accelerated to 21.1 percent from 16.4 percent recorded in the previous quarter. The increase in headline inflation was reflected in its key components. The rise in core inflation is consistent with both imported and domestic costs. The upward trend observed in fresh food inflation is on the back of the reduction in fresh food supply. An increase recorded in energy inflation mainly reflected the rise in solid fuels prices as domestic costs of production remain high.

Headline inflation accelerated in 2022Q4, reflecting the rise recorded in core, fresh food and energy inflation.

Headline inflation in both y-o-y and q-o-q terms increased, and this rise was reflected in core, fresh food and energy CPI components. Core inflation (y-o-y) picked up to 14.9 percent in 2022Q4 from 12.9 percent recorded in 2022Q3, while fresh food inflation accelerated to 48.2 percent from 29.7 percent of the previous quarter. Over the same period, energy inflation increased to 21.3 percent in 2022Q4 from 18.9 percent. On average annual inflation for 2022 stood at 13.9 percent.

Chart 12: Developments in headline inflation



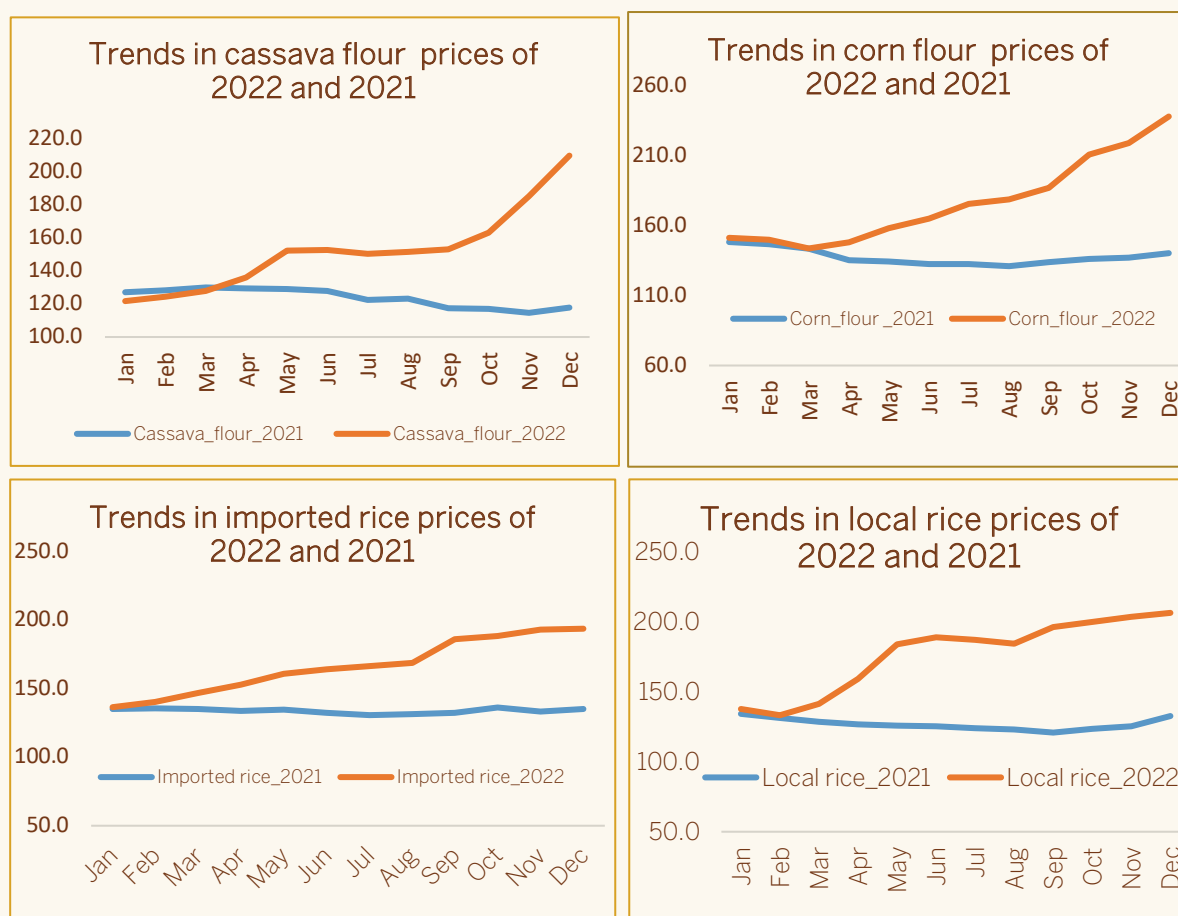
Core inflation in both y-o-y and q-o-q terms increased in 2022Q4, following the rise observed in imported and domestic costs of production.

The uptick observed in core inflation, mainly reflects the increases in core food inflation (from 27.0 percent to 32.2 percent), core alcoholic beverages and tobacco inflation (from 15.1 percent to 22.7 percent) and core housing inflation (from 5.7 percent to 6.2 percent). The recent upward trend in core inflation is consistent with high imported and domestic costs of production. The increase in imported costs continued to come from high inflation in trading partner countries, high shipment costs and the FRW depreciation, while elevated domestic costs reflected the strong economic growth in 2022.

The hike recorded in core food inflation originated from upticks in the prices of some processed food items that followed the upward trends observed in the international food prices due to high demand mainly for cereals and flours, adverse weather in some key food producers, and increased input costs over the same period. Similarly, core alcoholic beverages and tobacco inflation rose, reflecting the rises in the costs of production, while

the upticks observed in core housing inflation is attributed to an increase observed in the cost of services for the maintenance and repair of dwellings.

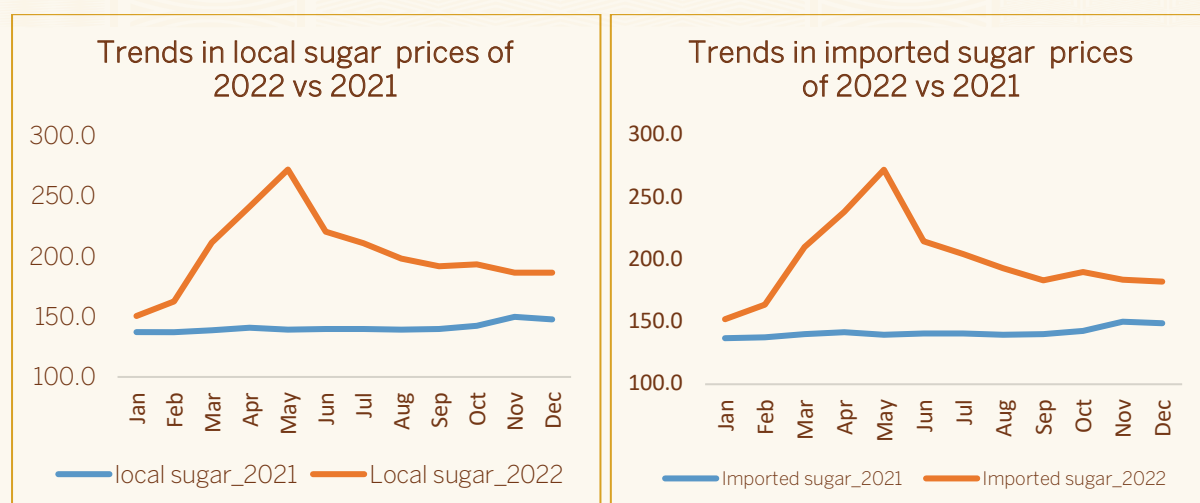
Chart 13 : Trends in prices of some core food CPI components



Source: NBR, Monetary Policy and Research Directorate

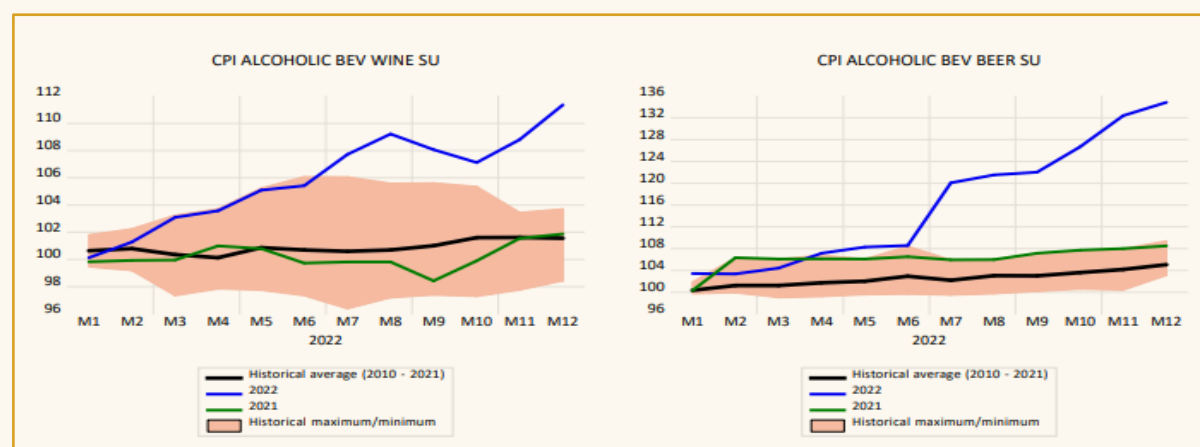
However, some food products such as sugar (local & imported) were on the easing trend over the same period even though their prices of 2022 remain above the prices recorded in 2021.

Chart-14 : Evolution in prices of some core food with a decreasing trend (sugar)



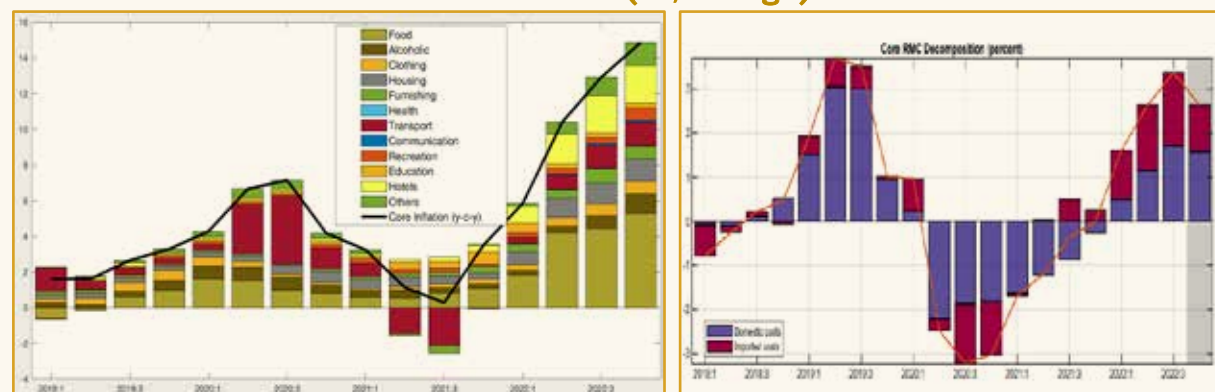
Prices for some alcoholic beverages and tobacco components in 2022 evolved above the 2021 price levels, and its historical average.

Chart-15 : Evolution in prices of some core alcoholic beverages and tobacco



Source: NBR, Monetary Policy and Research Directorate

Chart-16 : Contributors to core inflation (% change)

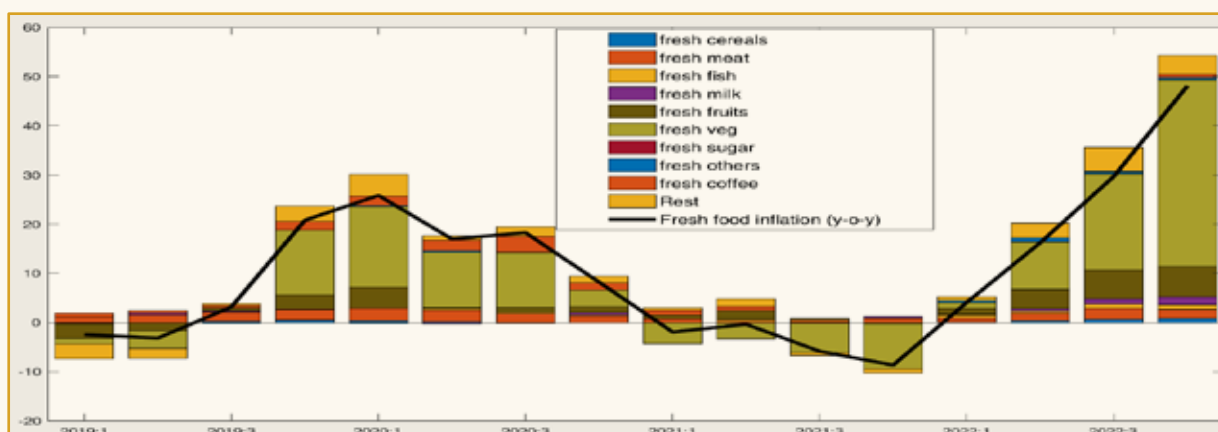


Source: NBR, Monetary Policy and Research Directorate

Fresh food inflation (y-o-y and q-o-q) surged on the back of the reduction of fresh food supply on the market, coupled with a base effect.

The increasing trend in fresh food inflation in y-o-y and q-o-q terms for 2022Q4 was mainly reflected in vegetables and fruits inflation. Vegetables inflation (y-o-y) picked up to 75.8 percent in 2022Q4 from 38.9 percent recorded in 2022Q3. Similarly, fruits inflation (y-o-y) rose to 31.0 percent in 2022Q4 from 29.5 percent of the previous quarter. Since the beginning of 2022, fresh food inflation was on the rising trend, and most increases were reflected in Irish potatoes inflation which picked up from 59.2 percent in 2022Q3 to 96.0 percent in 2022Q4, and dry bean inflation which rose from 65.2 percent to 164.5 percent, over the same period. Those developments in fresh food inflation (y-o-y) are attributed to the shortage of vegetable supply (especially rainfed food products such as dry beans and Irish potatoes) that followed the poor performance of food crop production throughout 2022, mainly originating from the delays in rainfall. In addition, a base effect of lower prices recorded last year in the corresponding period amplified the high inflations recorded in fresh food inflation.

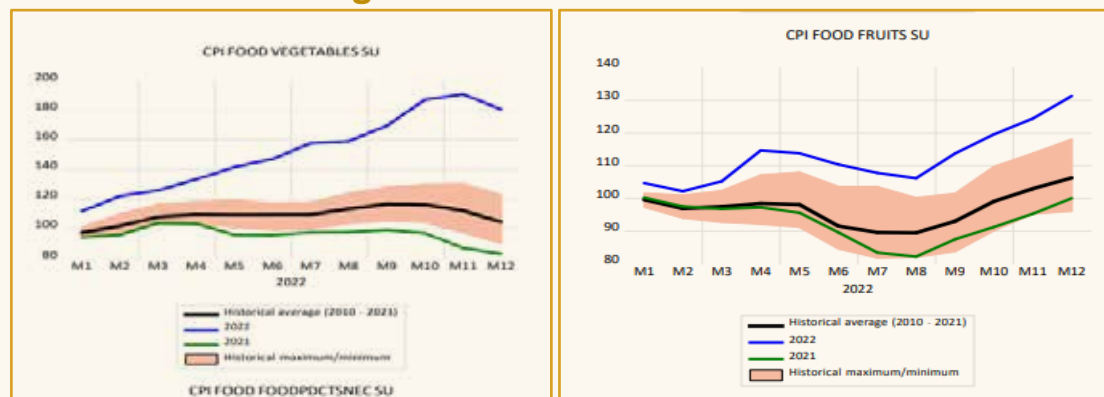
Chart-17: Fresh food inflation (y-o-y)



Source: NBR, Monetary Policy and Research Directorate

In 2022, vegetables and fruits prices evolved above the 2021 price levels and the historical average prices (2010-2021) as a result of low supply amid high demand.

Chart-18 : Trends in vegetables and fruits CPI

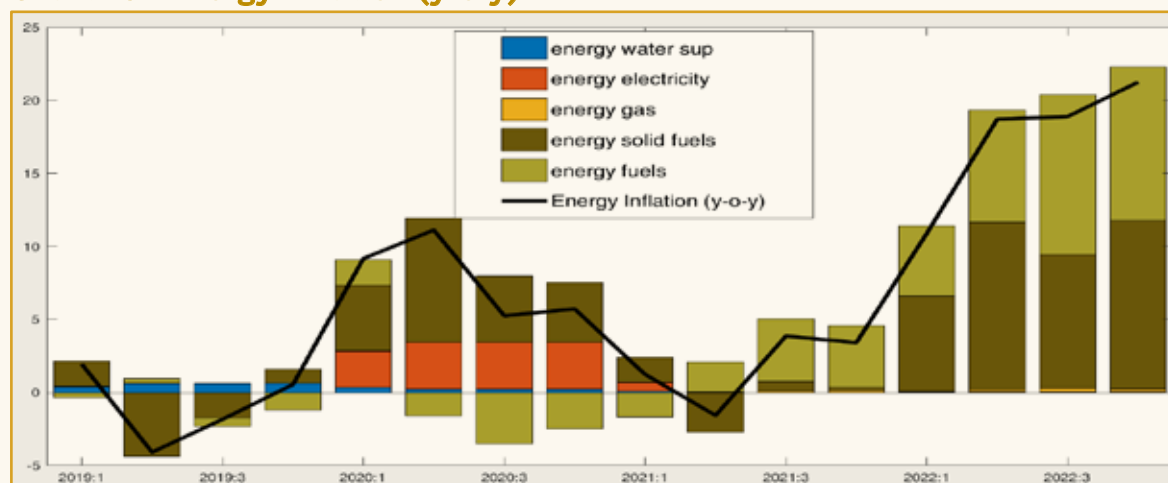


Source: NBR, Monetary Policy and Research Directorate

In 2022Q4, year on year energy inflation increased following the developments recorded mainly in solid fuels components.

In 2022Q4, energy inflation increased (y-o-y) and the upticks were reflected mainly in solid fuels inflation. An increase in solid fuels inflation (from 17.8 percent to 22.4 percent), reflects the less supply of charcoals and firewood on the market. Unlike solid fuels inflation, liquid fuels inflation slightly declined from 42.6 percent to 40.9 percent, reflecting a downward trend that happened in local pump price over the same period.

Chart-19 : Energy inflation (y-o-y)

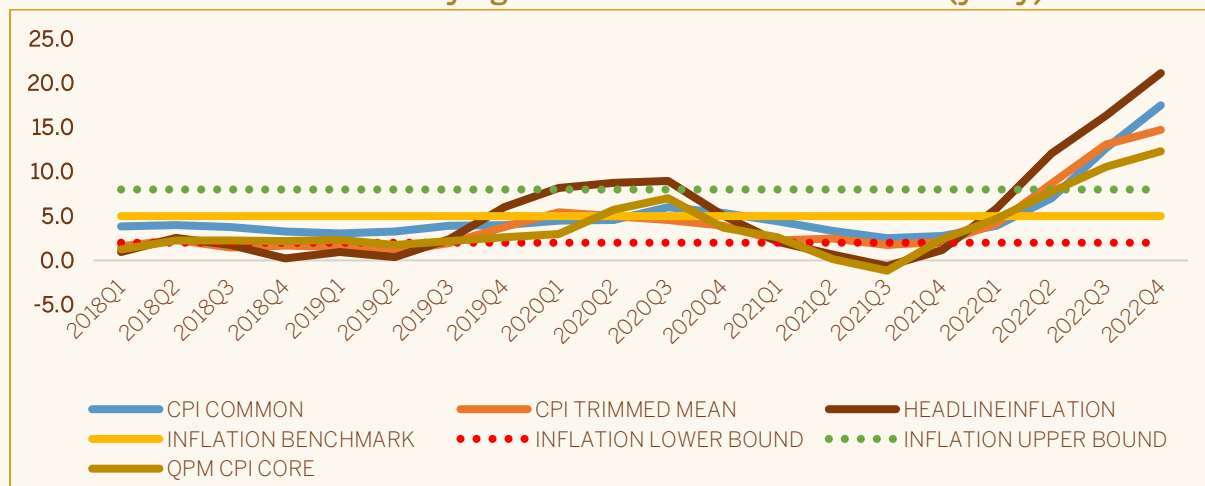


Source: NBR, Monetary Policy and Research Directorate

Underlying inflation measures indicate a broad-based increase in inflation.

In 2022Q4, the underlying measures of inflation indicate upticks in prices, above the upper bound, and they are associated with the developments recorded in both domestic and imported CPI components. CPI Trimmed mean picked up to 14.7 percent in 2022Q4 from 13.1 percent recorded in 2022Q3, CPI Common surged to 17.5 percent in 2022Q4 from 12.6 percent in 2022Q3, and CPI core (excluding food and alcoholic beverages & tobacco) surged to 12.3 percent in 2022Q4 from 10.6 percent noted in 2022Q3.

Chart-20: Indicators of underlying inflation vs headline inflation (y-o-y)



Source: NBR, Monetary Policy and Research Directorate

4.2 INFLATION OUTLOOK

4.2.1. Forecast assumptions

In 2023, the global economy is projected to slow down, slightly below potential after 2023H2, and this will have mild impact on the domestic economy.

From the IMF projections released in January 2023, global growth is estimated at 3.4 percent in 2022, while it is expected to fall to 2.9 percent in 2023, before rising to 3.1 percent in 2024. The 2023 forecast is 0.2 percentage point higher than predicted in October 2022, but below the historical average (2000-2019) of 3.8 percent. Some of the factors behind the projected slight decline in global growth forecast in 2023 compared to 2022, include the hikes recorded in the central bank rates to fight high levels of inflation, and the effects of the war between Russia and Ukraine that continues to weigh on economic activities.

Economic growth projections for the key advanced economies in 2022, such as the United States of America (USA) and the Eurozone, were revised down. The growth is projected to reduce to 0.5 pp in 2023 for the USA, reflecting tighter macroeconomic policy, and cumulative lagged effects of interest rate tightening. In the Eurozone, the latest ECB projections for 2023 were revised downward by 0.4 percentage points to 0.5 percentage points in 2023, however it will remain at 1.9 percentage points in 2024. The expected decline in economic growth projection of the Eurozone for 2023 is attributed to the impact of high inflation, uncertainties, market disruptions, and the fall in consumer's confidence.

In light with the above, the impact from global economic growth to domestic economy is expected to be moderate where domestic economic recovery will keep improving but at a slower pace over the medium term.

Over the medium term, global inflation and international commodity prices (food and energy) are expected to fall, which will ease pressures on imported inflation.

Since 2021H2, inflation rates have accelerated above the targets worldwide, mainly due to supply factors. In 2022, inflationary pressures accelerated, primarily reflecting upticks in food and energy prices following low supply as the war between Ukraine and Russia started. Going forward, IMF projections released in January 2023 indicated that about 84 percent of countries will be having lower headline (consumer price index) inflation in 2023 and 2024 than in 2022. In 2023, annual average inflation will be easing to 6.6 percent from 8.8 percent recorded in the previous year of 2022, while it is expected to stand at 4.3 percent in 2024. The expected drop in global headline inflation, partly reflects the weaker global demand of international fuel and nonfuel commodity prices, coupled with the cooling effects of monetary policy tightening on core inflation.

Consistent with the current projected path in global inflation and less demand for the international commodity over the medium term, imported prices are projected to reduce, hence less pressures on domestic inflation over the same period.

4.2.2. Baseline projections of key macroeconomic variables

Over the medium term, domestic economy is projected to evolve close to potential, creating less demand pressures. In 2023, inflation year-on-year is expected to gradually decrease, converging to slightly less than 8 percent at the end of the year. Pressures on energy and food prices are expected to start easing in the short term as global inflation and commodity prices moderate.

4.2.2.1. Drivers of inflation projections

Over the medium term, the domestic economy is projected to evolve around the potential level,

In 2022, core inflation surged following upward pressures from both domestic and imported costs of production. Domestic costs mounted on the back of a strong domestic economic recovery which was supported by the global demand, and accommodative monetary conditions. The current domestic costs pressures are projected to remain till 2023Q3. However, pressures will decelerate to a neutral level in 2024, as the economy is expected to grow close to its potential level. The projections indicate that monetary conditions will remain favorable to the domestic economy in the next 3 quarters. In line with the projected world economic growth, the global stimulus to the domestic economy in 2022, is expected to reduce but continue in 2023, and then dissipate in 2024. Consistent with the aforementioned projected trends in monetary conditions, and global demand over the policy horizon, domestic demand pressures are projected to be subdued in 2024.

High imported costs recorded in 2022 are projected to continue with lesser effects in 2024, owing to easing global inflation and a projected less strong US dollar. The projected combined effect are neutral pressures on core inflation.

Energy inflation is expected to drop over the medium term. High cost pressures on energy prices that pushed up energy inflation in 2022 are projected to fade away on the back of international oil prices projected to reduce further, becoming neutral in the short term, easing pressures on energy inflation.

Food inflation (including processed food and beverages) is expected to decline. Pressures from domestic food production are expected to dissipate as food supply increases with season B 2023 production. The aforementioned decline in international food prices are projected to start exerting downward pressures in the short term. Overall, projections indicate downward pressures, supporting the decline in food inflation over the policy horizon.

4.2.2.2. Projections of key macroeconomic indicators

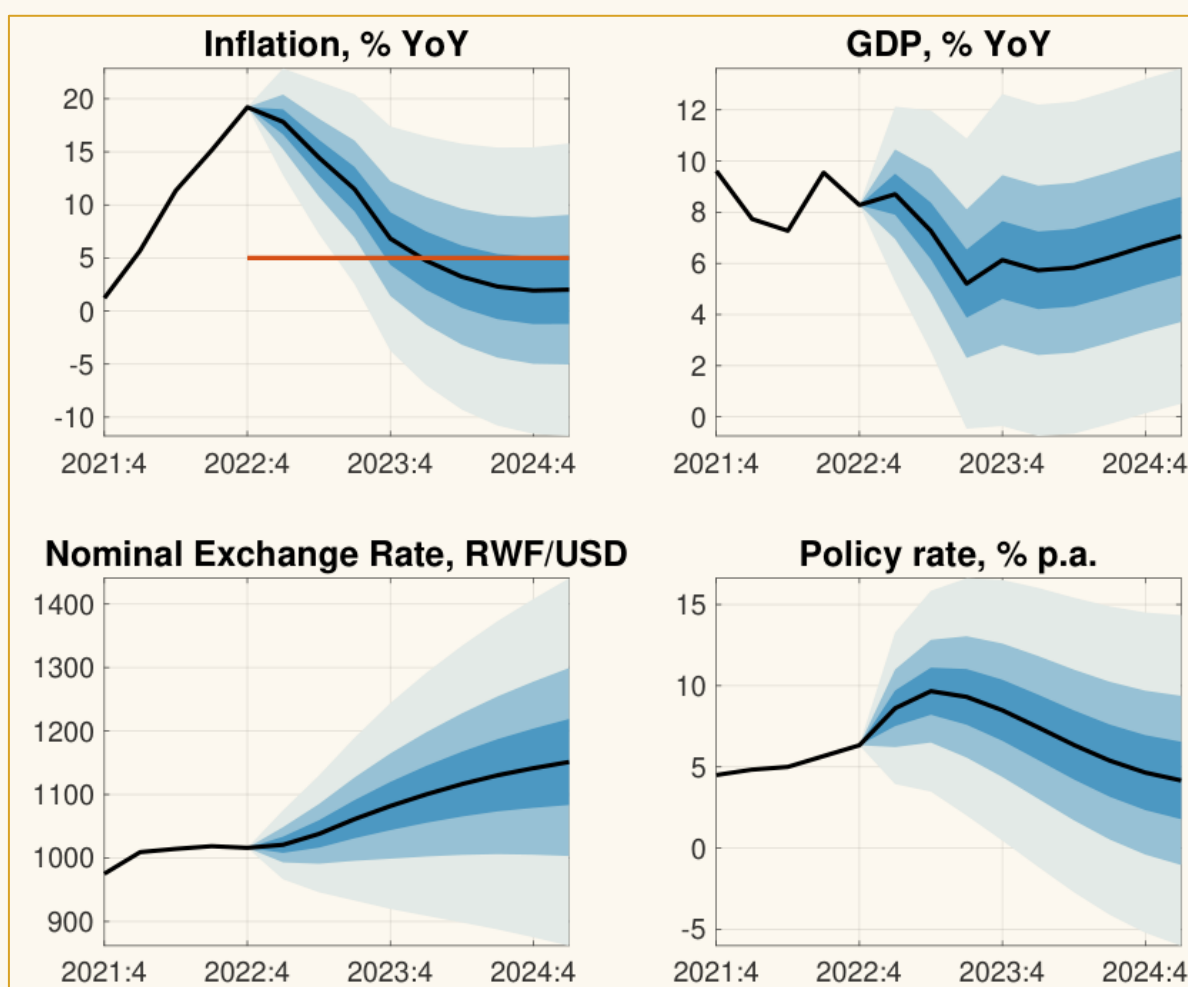
In line with the recent economic developments, assumptions on the global economy, and other macroeconomic variables, headline inflation is projected to remain elevated, but

easing in the upcoming three quarters of 2023. It is expected to evolve in the band in 2023Q4.

Core inflation will remain high especially during the first half of 2023, but pressures will decelerate over the policy horizon. In 2023, domestic costs of production will remain inflationary, following the strengthening of the domestic economy, and high imported and domestic costs. Pressures on core inflation will significantly decelerate in 2024.

Pressures on food inflation are projected to decrease following the expected decline in the international food prices and the increase in domestic food supply. Similarly, energy inflation is expected to drop, reflecting the deceleration in international oil prices.

The figure below indicates the outlook for key macroeconomic variables over the policy horizon.



Source: NBR, Monetary Policy, and Research Directorate

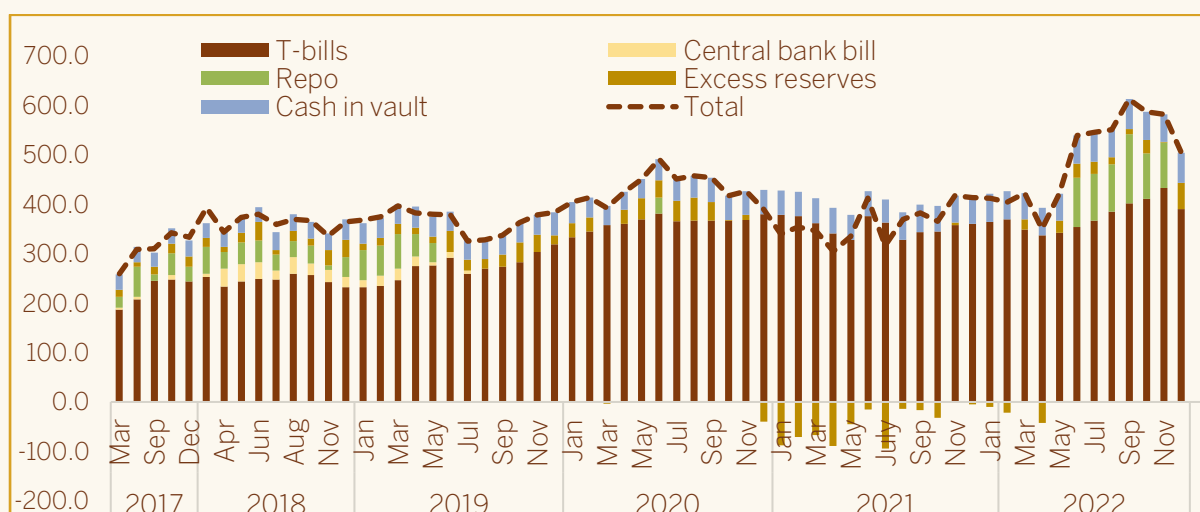
V. FINANCIAL AND MONETARY DEVELOPMENTS

The Banking system liquidity rebounded and money market rates remained steered around the central bank rate. The interbank rate increased by 74 basis points to 5.92 percent in 2022 compared to the previous year, following the three rounds of central bank rate hike recorded in 2022. Regarding lending rate, it rose by 20 basis points to 16.38 percent in 2022. During the same period, broad money increased by 22.5 percent while the growth pace of the outstanding credit to the private sector decelerated to 13.6 percent.

The growth of banking system liquidity stems from the rebound in excess reserves.

In 2022, the bank's most liquid assets grew by 21.9 percent to FRW 503.9 billion, from FRW 413.5 billion recorded in 2021, compared to a growth of 6.1 percent recorded in the corresponding period of the previous year. This growth resulted from increased government spending in 2022, which led to rebounded excess reserves and increased T-bills investment.

Chart 21: Most liquid assets of commercial banks (FRW billion)

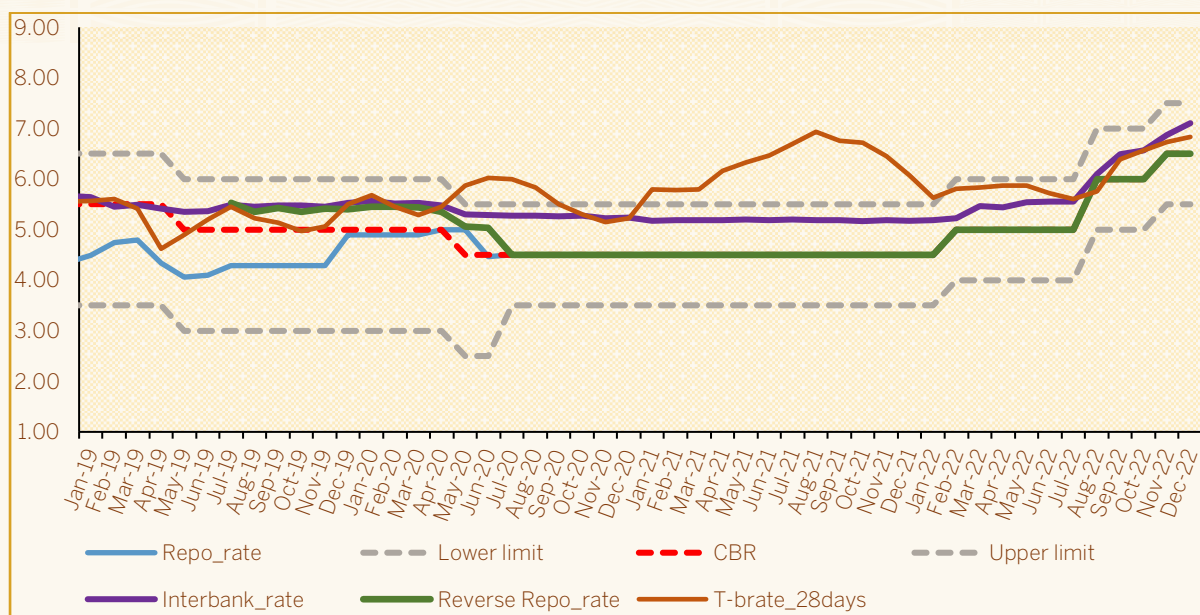


Source: NBR, Monetary Policy and Research Directorate

Money market interest rates remained close to the central bank rate.

In November 2022, the MPC continued the fight against the inflation by increasing the Central Bank Rate by 50 basis points to 6.50 percent after two rounds of CBR hike, which accumulated to the increase of 200 basis points from February to November 2022. This decision was mainly aimed at limiting second-round effects from higher imported prices resulting from global shocks. As a result, money market rates were steered around the central bank rate, with the interbank rate increasing by 74 basis points to 5.92 percent on average in 2022 from 5.18 percent in 2021.

Chart 22: Money market rates developments

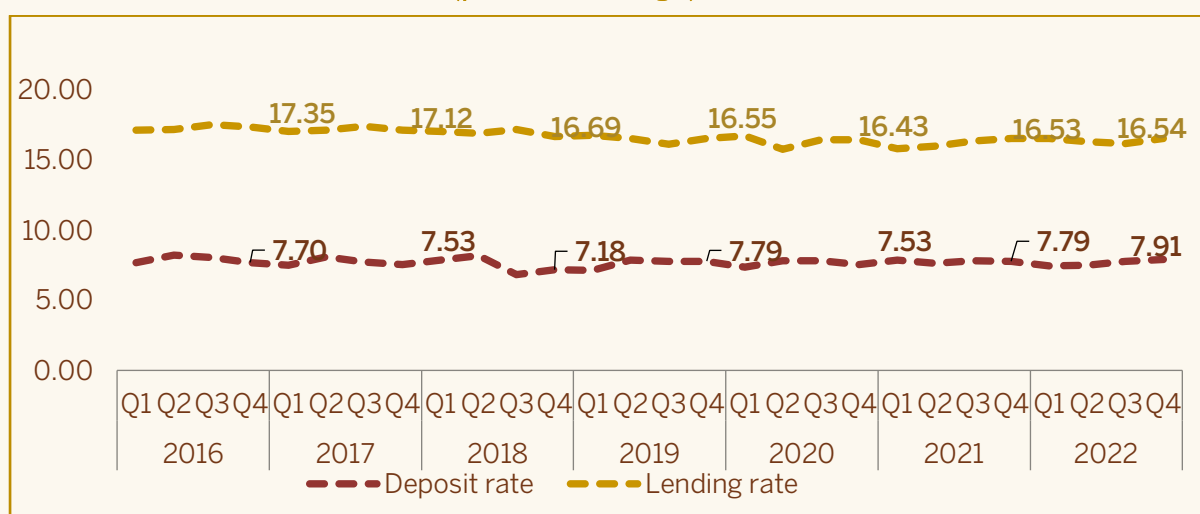


Source: NBR, Monetary Policy and Research Directorate

The annual average lending rate increased by 20 basis points to 16.38 percent in 2022 from 16.18 percent in 2021, on the back of increased share of loans with short term maturity, which are usually priced at higher rates. During the same period, annual average deposit rate dropped by 12 basis points to 7.66 percent in 2022 from 7.78 percent in 2021, resulting from increased share of short-term deposits.

Looking at quarterly market interest rates, lending rate rose by 1 basis points to 16.54 percent in 2022Q4(year on year), from 16.53 percent in 2021Q4. During the same period, deposit rate rose by 12 basis points to 7.91 percent from 7.79 percent. As a result, the spread between the lending rate and the deposit rate dropped by 0.11 percentage points to 8.63 percent on average in 2022Q4, down from 8.74 percent in 2021Q4.

Chart 23: Market interest rates (percent average)



Source: NBR, Monetary Policy and Research Directorate

The foreign exchange market remains stable.

The FRW ended the year 2022 with a depreciation rate of 6.05 percent against the USD, higher than 3.82 percent recorded in 2021. This higher depreciation was linked to high international commodity prices that increased the import bill, and the strengthening USD that resulted from a more aggressive monetary policy tightening by the Fed in comparison to other central banks.

Table 1: Appreciation/Depreciation rate of FRW against selected currencies (y-o-y)

	FRW/USD	FRW/GBP	FRW/EUR	FRW/JPY	FRW/KES	FRW/TZS	FRW/UGX	FRW/BIF
Dec-18	4.04	-1.96	-0.07	6.20	5.46	1.24	1.77	1.93
Dec-19	4.94	8.48	2.81	6.25	4.53	3.73	5.13	-0.24
Dec-20	5.42	9.42	15.71	11.43	-1.34	5.66	7.17	2.53
Dec-21	3.82	2.94	-4.39	-6.96	0.24	4.78	6.85	1.00
Mar-21	5.22	17.06	11.81	2.76	0.57	4.90	9.01	2.08
Jun-21	5.34	18.61	11.55	2.69	4.07	5.34	10.86	1.72
Sep-21	4.26	9.21	3.10	-1.74	2.41	4.74	9.29	1.33
Dec-21	3.82	2.94	-4.39	-6.96	0.24	4.78	6.85	1.00
Mar-22	4.01	-0.60	-0.82	-5.67	-0.87	4.01	6.11	-1.25
Jun-22	3.78	-9.10	-8.83	-16.02	-4.99	3.30	-2.12	-0.12
Sept-22	4.45	-13.76	-11.74	-19.15	-4.41	3.49	-4.05	0.51
Dec-22	6.05	-5.30	-0.04	-7.90	-2.80	4.47	1.17	2.03

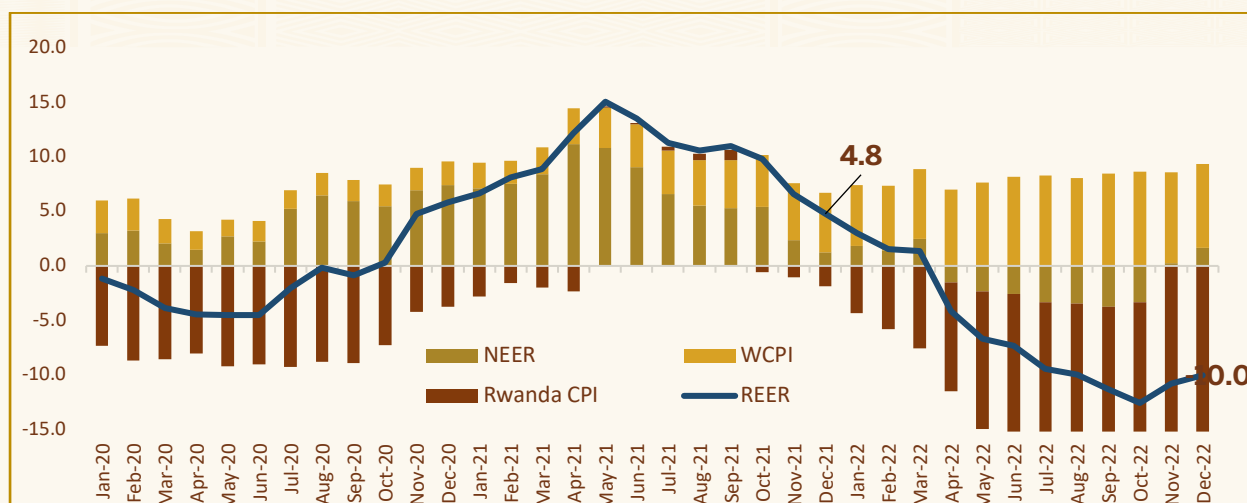
Source: NBR, Monetary Policy Department

Relative to regional currencies, the FRW remained strong versus the Kenyan shilling while it weakened against the TZS, the BIF and UGS. The franc added 2.80 percent vis-à-vis the KES in December 2022, while it had depreciated by 0.24 percent in the corresponding period of 2021. The franc weakened by 4.47 percent, 1.17 and 2.03 percent respectively versus the TZS, Uganda shilling and the BIF.

In real effective terms, the current domestic context of high inflationary pressures is continuing to shape the franc exchange rate. Since April 2022, the franc nominal effective indices were slowing down in levels, pointing to an appreciation of the FRW compared to currencies of trading partners. In December 2022, the FRW appreciated in real terms by 10.0 percent year-on-year while it had depreciated by 4.8 percent in December 2021.

This appreciation reflects a combined effect of largely negative inflation differential (higher domestic than the weighted foreign inflation) and low depreciation of the FRW nominal effective exchange rate. Rwanda consumer price index rose by 21.6 percent, faster than the weighted consumer price index of trade partners that rose by 7.7 percent in December 2022. In nominal effective terms, the FRW depreciated by 1.7 percent in December 2022 after a depreciation of 1.3 percent in the corresponding period of 2021.

Chart 24: Drivers of REER movement (y-o-y, % change)



Source: NBR, Monetary Policy and Research Directorate

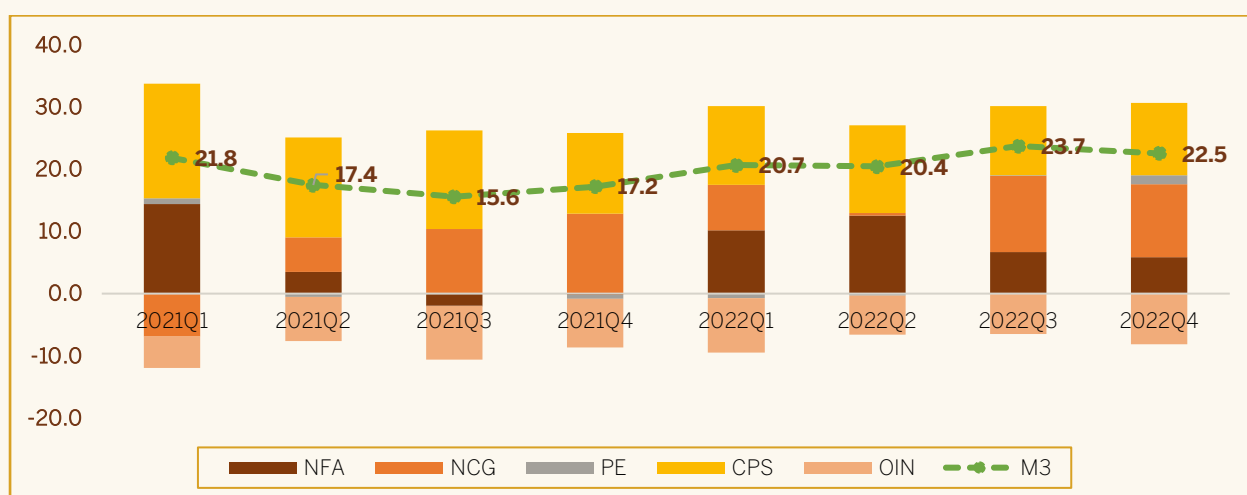
The negative inflation differential drove the appreciation of the FRW in real effective terms. As implications, domestic products become less competitive compared to foreign goods which are relatively cheaper. The monetary policy tightening is expected to provide some relief to the franc in real term.

Broad money (M3) kept increasing, despite the monetary policy tightening path

Broad money (M3) rose by 22.5 percent in 2022, from an increase of 17.2 percent recorded in 2021, mainly driven by the growth in Net Credit to Government (NCG) by 121.3 percent, Credit to Private Sector (CPS) by 13.6 percent and Net Foreign Assets (NFA) by 13.2 percent.

Looking at q-o-q, the broad money growth decelerated slightly to 4.2 percent in 2022Q4 compared with 4.5 percent recorded in 2022Q3.

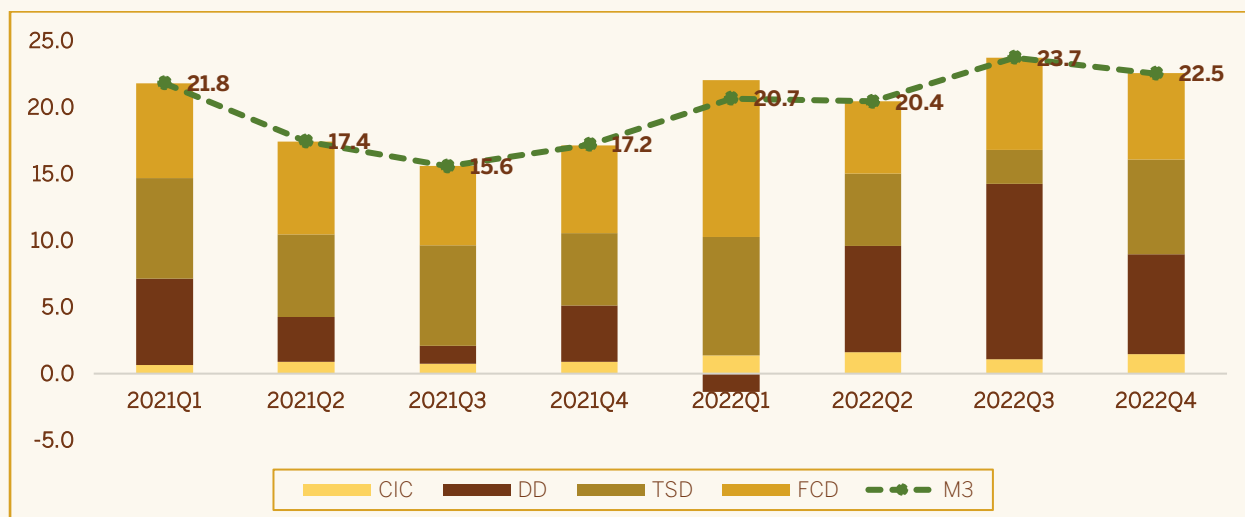
Chart 25. Contributors to M3 growth from the assets side (Y-o-Y)



Source: NBR, Monetary Policy and Research Directorate

On liability side, the increase in the broad money mainly resulted from an increase in Demand Deposits (DD) which contribute to the M3 growth by 7.5 percent, Time and Saving Deposits (TSD) by 7.1 percent and Foreign Currency Deposits (FCD) by 6.5 percent in 2022.

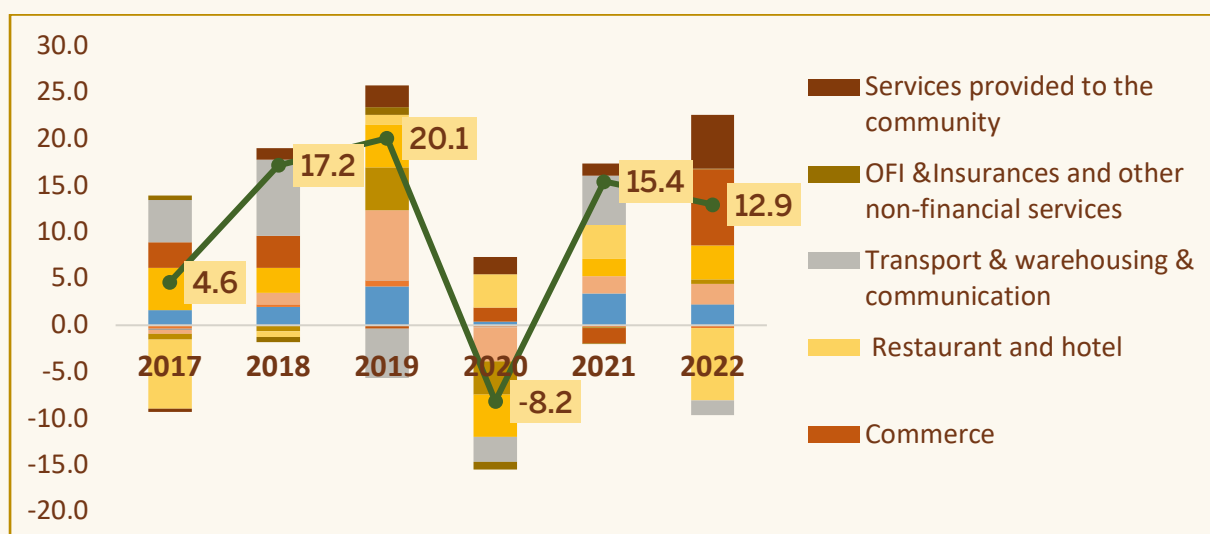
Chart 26. Contributors to M3 growth from the liabilities side (Y-o-Y)



Source: NBR, Monetary Policy and Research Directorate

New Authorized loans slowed to 12.9 percent in 2022 compared with 15.4 percent recorded in 2021. This was on the back of larger loans approved in 2021 for corporates in sectors such as Restaurants and Hotels, Communication and Services. In q-o-q terms, NALs rose by 23.1 percent in 2022Q4 compared with 16.5 percent increase recorded in 2022Q3. Short-term debts predominate other loans especially for corporates, due to working capital loans approved mostly to businesses in trade and manufacturing sectors. They account for 49.6 percent of the total loans provided in 2022Q4, while medium and long term loans account for 32.5 percent and 18.0 percent, respectively.



Chart 27. Contribution of sectors to the change in New Authorized Loans (Y-o-Y % change)







Source: NBR, Monetary Policy and Research Directorate



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