



**CENTRAL BANK**  
OF THE REPUBLIC OF AZERBAIJAN

## **MONETARY POLICY REPORT**

# **2022**

**JANUARY-DECEMBER**

**2022**  
**Nº4**



# TABLE OF CONTENTS

<b>Executive summary</b>	<b>3</b>
<b>I. Global economic environment and the external sector</b>	<b>4</b>
1.1. Global economic trends	4
1.2. External sector developments of the Azerbaijani economy	10
<b>II. Macroeconomic development in Azerbaijan</b>	<b>14</b>
2.1. Economic activity	14
2.2. Inflation	20
<b>III. The monetary and exchange rate policy</b>	<b>24</b>
3.1. The FX market and the exchange rate of the manat	24
3.2. Monetary policy tools and the money market	26
3.3. Money supply	30
<b>Charts and tables</b>	<b>34</b>

## ACRONYMS

AE	Advanced economy
APPI	Agricultural Producer Price Index
BCI	Business Confidence Index
CBA	Central Bank of the Republic of Azerbaijan
CCI	Consumer Confidence Index
CPI	Consumer Price Index
EME	Emerging market economy
FAO	Food and Agriculture Organization of the United Nations
FDI	Foreign direct investment
FED	Federal Reserve System
FX	Foreign exchange
GDP	Gross Domestic Product
ILO	International Labor Organization
IMF	International Monetary Fund
IPPI	Industrial Producer Price Index
NDA	Net Domestic Assets
NEER	Nominal Effective Exchange Rate
NFA	Net Foreign Assets
OECD	Organization for Economic Cooperation and Development
OPEC	Organization of the Petroleum Exporting Countries
REER	Real Effective Exchange Rate
RSM	Real Sector Monitoring
SCC	State Customs Committee
SSC	State Statistics Committee
WEO	World Economic Outlook
WTO	World Trade Organization
Yoy	Year over year

## **EXECUTIVE SUMMARY**

*The Central Bank of the Republic of Azerbaijan implemented the policy oriented towards safeguarding macroeconomic and financial stability in the country according to its mandate in 2022.*

*The operating environment of the CBA in 2022 was marked with multifaceted effects of global economic developments to the country economy. Sharp volatility in global commodity prices, inflation in trade partners and logistic costs had a significant effect on domestic inflation. The external environment was mainly favorable for Azerbaijan in terms of the balance of payments and the support of domestic economic activity. Equilibrium was maintained in the FX market on the backdrop of the balance of payments surplus and strategic foreign exchange reserves of the country kept increasing. The dynamics of the NEER of the manat contained imported inflation considerably.*

*The CBA strived to strengthen effects of the monetary policy to drive down inflation by means of the quantity and value of money. At the same time, over the year the Bank implemented a number of measures to better the pass-through of the monetary policy and launched new monetary policy tools in September to improve the monetary policy operational framework. The measures contributed to elevate the pass-through of the monetary policy decisions to inflation through the interest rate channel.*

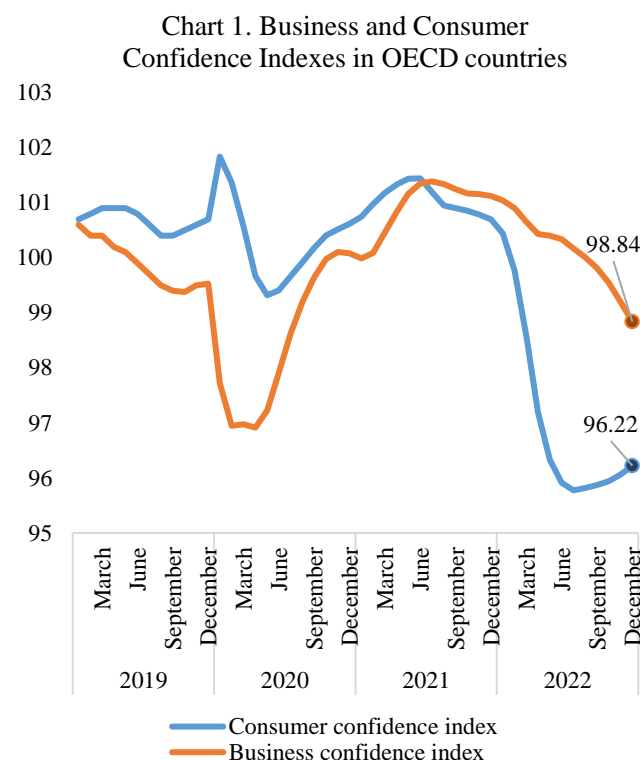
# I. GLOBAL ECONOMIC ENVIRONMENT AND THE EXTERNAL SECTOR

## 1.1. Global economic trends

*The year of 2022 was featured with high uncertainties related to the global economic outlook, mainly attributable to intensified geopolitical and geoeconomic tension. Monetary policy tightening by central banks to fight persistent inflation amid tensions restricted global economic growth. Government programs started in a number of countries in second half of the year to support consumers affected by rising energy prices stimulated economic growth.*

High geopolitical and geoeconomic tensions in 2022 had a negative effect on economic activity indicators on both consumers and businesses in advanced country groups. Hence, the CCI and the BCI, activity indicators for OECD countries, were mainly prone to decreasing in 2022. However, the CCI grew in the last

quarter, due to the drop in actual inflation and inflation expectations over recent months.

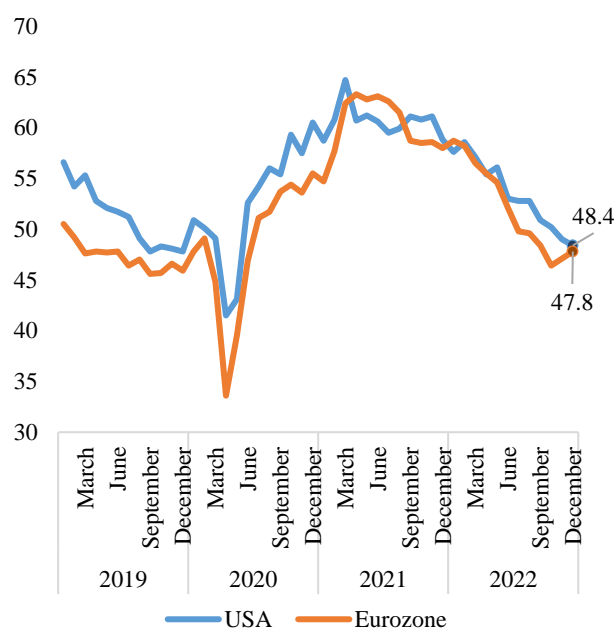


Source: OECD

Another indicator of economic activity, the Purchasing Manager's Index (PMI)<sup>1</sup> on production has been falling since early 2021 in the USA and the euro area, the main actors of the global economy, due to impact of monetary tightening by central banks to fight inflation to domestic production. However, the index has grown in the euro area over recent months.

<sup>1</sup> The Purchasing Managers' Index measures trends in sectors – over 50 stands for expansion and below 50 – stands for contraction compared with the previous month.

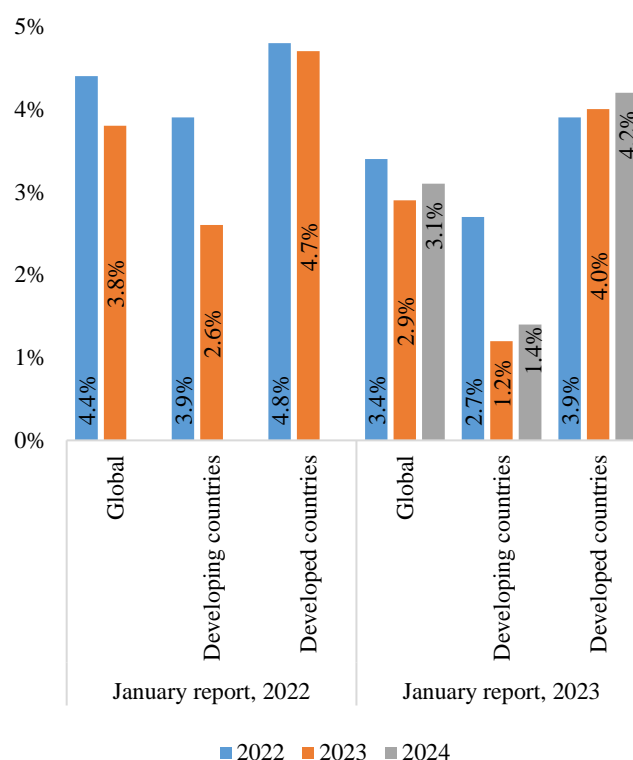
Chart 2. Purchasing Managers' Index (PMI)



Source: Institute for Supply Management and Markit Economics

On the backdrop of recent developments in the global economy, international organizations changed economic growth predictions. The IMF, in its WEO January 2023 report estimates 3.4% global growth in 2022; down by 1 pp (4.4%) compared with January 2022 forecast. Moreover, the recent report predicts 2.9% and 3.1% economic growth for 2023 and 2024 respectively. Upward revision of economic growth outlook is attributable to the higher than expected ability of countries to show resilience to external shocks in future. A decrease in global GDP or per capita global GDP is not expected.

Chart 3. Economic growth projections, %



Source: IMF

The IMF WEO January 2023 report predicts 2.7% economic growth forecast for Advanced Economies (AEs), down by 1.2 pp compared with the January 2022 forecast. According to recent estimations by the IMF, about 90% of AEs expect economic activity to fall in 2023. Growth is predicted to fall to 1.2% in 2023 and then slightly rise to 1.4% in 2024. The WEO January 2023 report revised economic growth down for the USA, the euro area, the UK and Japan (2%, 3.5%, 4.1% and 1.4% respectively) compared with January 2022 forecast. The effects of fall in the in the prices of

oil and non-oil commodities since October were factored in estimations.

In December, unemployment in the USA decreased to 3.5% and remained stable in Japan, the euro area and the UK (2.5%, 6.6% and 3.7% respectively in November 2022). Although unemployment was close to historical lows and there were vacancies available in 2022, activity indicators (e.g. business and consumer sentiment, the PMI and economic mobility indicators) show traces of stagnation.

Low economic activity affected fund indices too. In 2022 the Dow Jones fell by 9%, the S&P 500 by 12.4%, the NASDAQ by 33.5%, the FTSE Euro top by 5.9% and the Nikkei by 9.2%.

The IMF WEO January 2023 report revised down economic growth in Emerging Market Economies (EMEs) by 0.9 pp to 3.9% compared with the January 2022 forecast. Economic growth is predicted to rise by 0.1 pp to 4.0% in 2023 and to 4.2% in 2024. Although monetary tightening by central banks of advanced economies slightly reduced

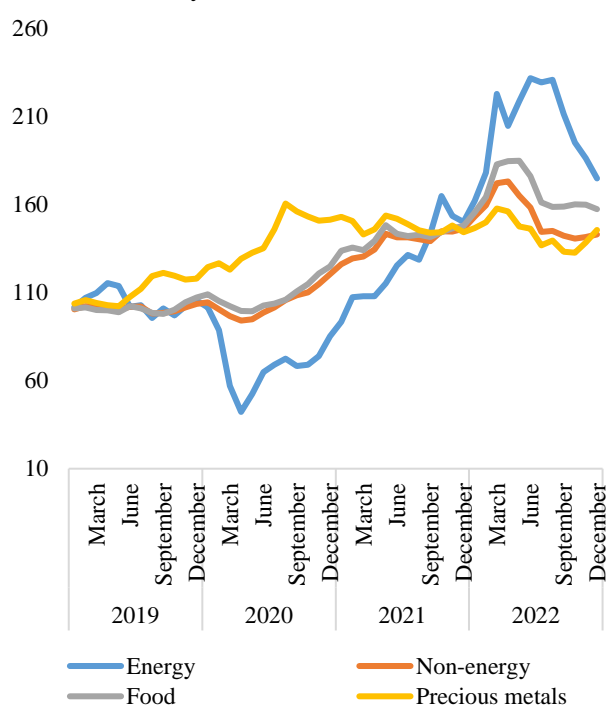
inflationary pressures over the year, it led to low economic activity in EMEs.

The real estate crisis and resurgence of COVID-19 in China not only weakened economic activity in the country, but also spilled over to economic activity in other EMEs. Sanctions dramatically impacted economic activity in Russia. The EU, that completely stopped coal supply from Russia in 2022, also reduced gas imports through the pipeline to minimum towards the end of the year. Moreover, the EU banned Russian crude oil supply by sea and set a price cap for it in early December, resulting in low oil revenues of the country amid sanctions.

Geopolitical and geoeconomic tension unfolded at the beginning of the year, coupled with inflationary pressures emerging amid easing of pandemic-related restrictions weighed on the behavior of global commodity prices. According to the World Bank Commodity Markets Outlook January 2022, energy prices hiked by 16.4% and food prices by 6.3% in 2022. According to the UN FAO, in March 2022, the food

price index yoy increased by 34% followed by gradual drop in the ensuing months. As of end-year, this indicator was yoy down by 1%.

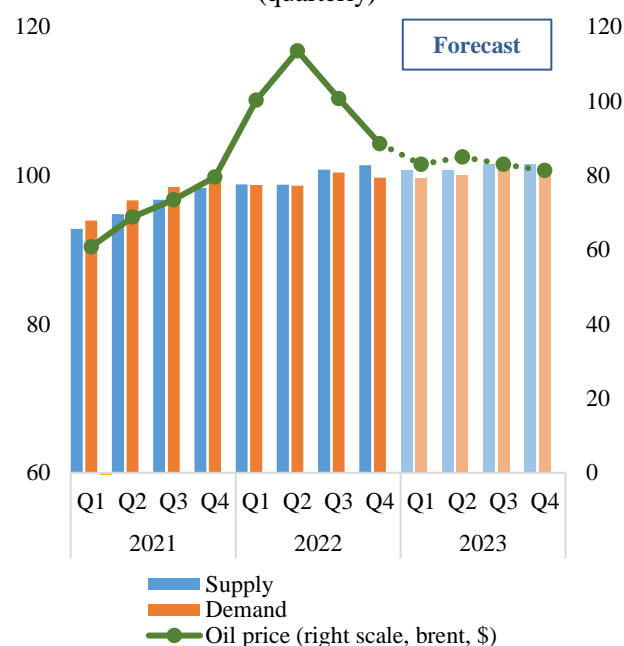
Chart 4. Global commodity index yearly dynamics (2018 december=100)



Source: World Bank

Over the year, the highest price increase was on energy products. The average price for the Brent oil was around \$99.2 per barrel in 2022 (up by 40% (\$70.9) compared with the average price in 2021). The IMF, in its January release forecasts the average price fall to \$81.1 per barrel in 2023 (\$85.5 in October release), and \$75.4 in 2024.

Chart 5. Dynamics of demand and supply in the global oil market, mln. barrel (quarterly)



Source: US Energy Information Administration (EIA)

The US EIA, in its January report predicts that global oil consumption will uptick. However, demand outlook remains uncertain with ongoing concerns related to the global economic condition, relaxation of COVID-19 restrictions in China and resultant resurgence of the cases. The institution forecasts the production of oil and other liquid fuel to increase by 1.1 million barrel/day in 2023.

Gas prices highly fluctuated in 2022, the turbulent year full of geopolitical and geoeconomic tensions. The average annual gas price was

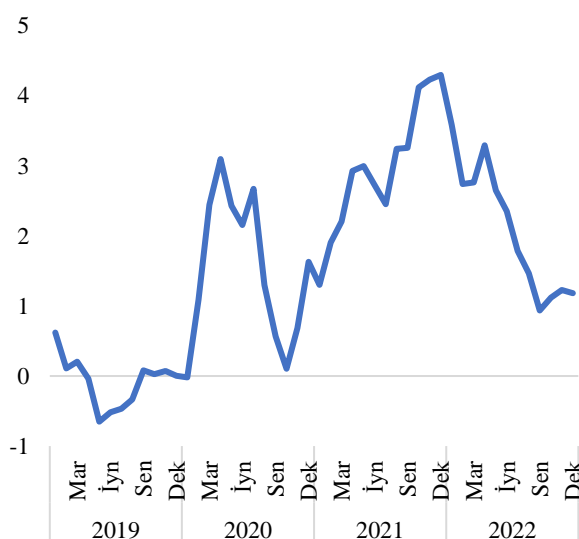


\$1404.9, which peaked in Europe in Q3 (\$3578). However, due to

higher underground gas reserves in Europe prices fell as of end-2022.

Partial recovery of pandemic-triggered supply chain disruptions and geopolitical tension boosted global inflationary pressures through transportation and logistic expenses. While the Global Supply Chain Pressure Index, calculated by the Federal Reserve Bank of New York, has decreased continuously since April, it began to increase from October onward.

Chart 6. Global Supply Chain Pressure Index (2019 - 2022 June)

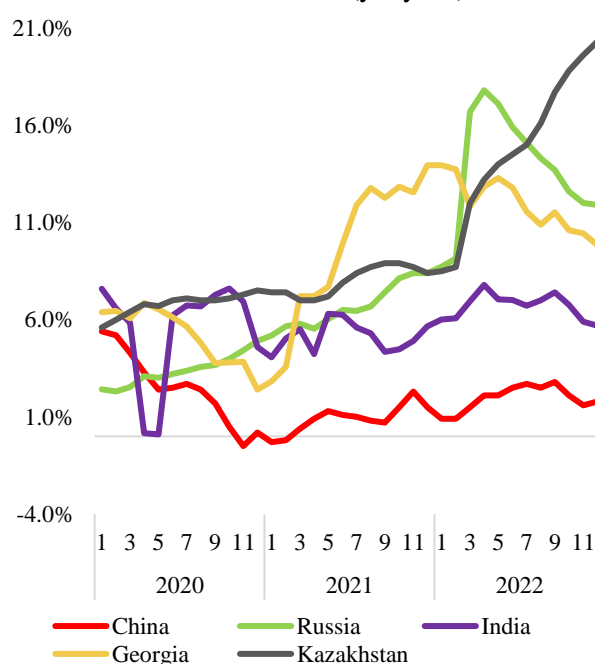


Source: New York FED

The IMF WEO January 2023 estimates global inflation to be at 8.8% in 2022. It

is forecast to fall to 6.6% in 2023 and later fall to 4.3% in 2024. However, this rate is still expected to be higher than the pre-pandemic level (3.5%, 2017-2019). The report also forecasts inflation in AEs to be at 7.3% and at 9.9% in EMEs in 2022. According to estimates of the IMF, in 2023 inflation in about 84% of countries will be lower than in 2022. EMEs were under high inflation pressures in 2022. Despite this, inflation relatively slowed down in a number of EMEs over last months of the year. Food prices made the highest contribution to inflation.

Chart 7. Inflation in some developing countries, (y.o.y, %)



Source: State Statistic Offices

In response to inflationary pressures, 70 central banks increased the policy rate, 4 central banks reduced it and 11 central banks left it stable over the year. . The US Fed shifted the policy rate from 0-0.25% to 4.25-4.5%, the Bank of England from 0.25% to 3.5%, and the ECB from 0-0.25% to 2.5-2.75%. Effects of monetary policy tightening by central banks on demand and inflation became more apparent at the end of 2022. However, full effect is unlikely to be felt until 2024.

According to the IMF January release, global risks have slightly slowed down since October. In general, current risks are classified as follows:

- Delayed recovery of the Chinese economy;
- High energy and food prices resulting from further escalation of geopolitical and geoeconomic challenges;
- High borrowing cost and low economic growth in EMEs;
- Deviation of inflation expectations from the anchor with soaring global demand;

- Negative effects of tight monetary policy decisions of central banks on economic activity;
- Further restrictions to cross-border flow of capital, labor force and international payments and impediments to multilateral cooperation.

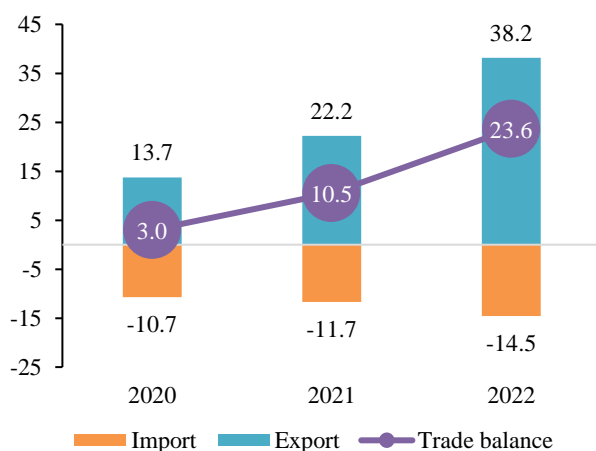
The IMF, in its recent release, recommends a number of policy proposals. For most countries, the priority is to achieve a target inflation rate through interest rates. Effective communication of central banks with broad public and their adequate response to information updates will help keep inflation expectations stable and reduce price pressures. Contingent upon macroeconomic conditions, macro prudential tools may be used to remove vulnerabilities of the financial. Investments in green energy technologies will boost energy security. The use of the global financial security network and strengthening of global trade may make economies more resilient.

## 1.2. External sector developments of the Azerbaijani economy

*External sector indicators of Azerbaijan significantly increased year-over-year in 2022 at the backdrop of high energy prices and rising non-oil export.*

According to the SCC, foreign trade turnover amounted to \$52.7B – export \$38.2B (72.4%), import \$14.5B (27.6%). Foreign trade surplus stood at \$23.6B, yoy up by 2.2 times.

Chart 8. Trade balance, \$ billion

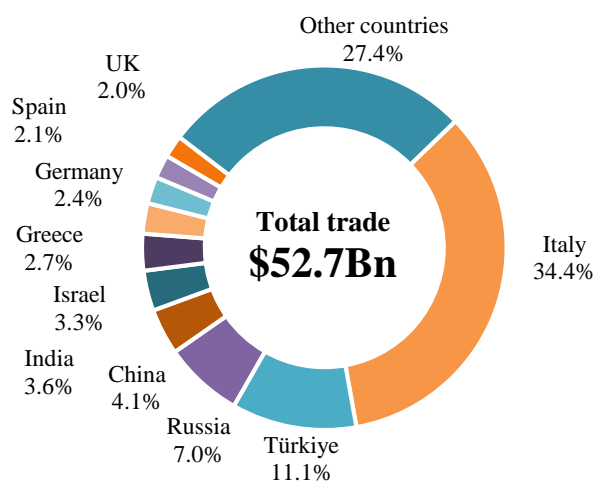


Source: SCC

Azerbaijan traded with 185 countries over the period.

Italy, Türkiye, Russia, China, India, Israel, Greece, Germany, Spain and the UK accounted for over half of trade turnover.

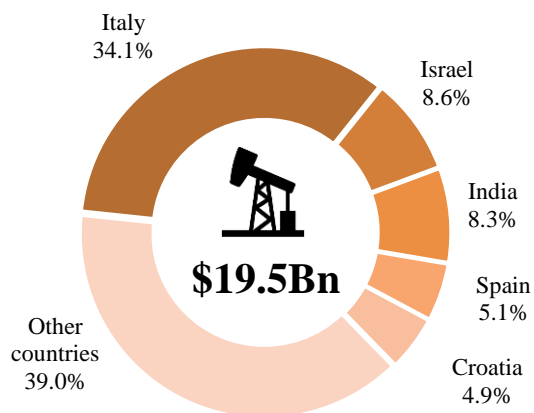
Chart 9. The main countries in trade (%), 2022



Source: SCC

Export increased by 71.8%, and oil-and-gas export increased by 80.1%. The value of export increased by 47.4% on crude oil and by 2.7 times on natural gas, 34.1% of crude oil and oil products was exported to Italy, 8.6% to Israel, 8.3% to India, 5.1% to Spain and 4.9% to Croatia.

Chart 10. Countries to which crude oil and oil products are exported (%), 2022

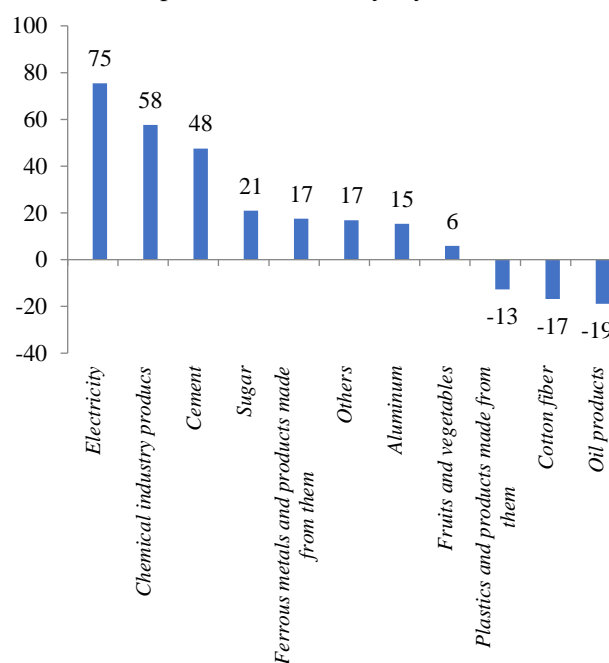


Source: SCC

Non-oil export increased by 12.3%. Electricity, chemical products, cement, tea, sugar, ferrous metals and products, aluminum and products, fruits and vegetables, alcoholic and non-alcoholic beverages also saw increased exports.

In general, main export partners were Italy (46.6%), Türkiye (9.3%), Israel (4.4%), India (4.4%) and Greece (3.7%).

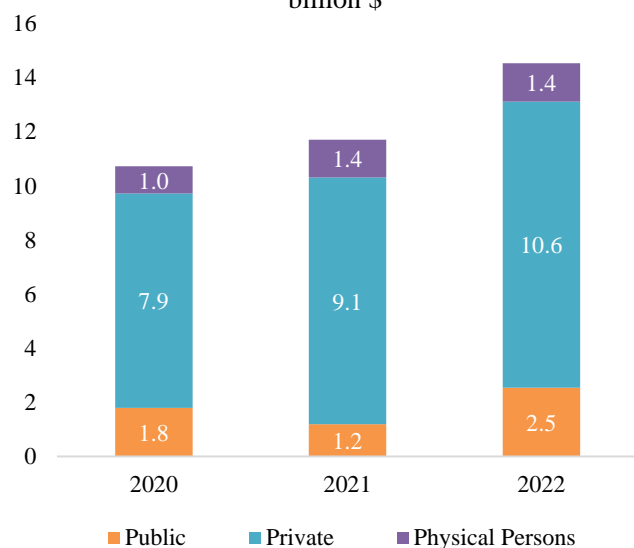
Chart 11. Changes in export of some products in 2022, (y.o.y., %)



Source: SCC

Commodity import yoy increased by 24.2%. Commodity import increased by 2.1 times to \$2.5B on the public sector, by 15.9% to \$10.6B on the private sector and decreased by 2.2% to \$1.4B on individuals.

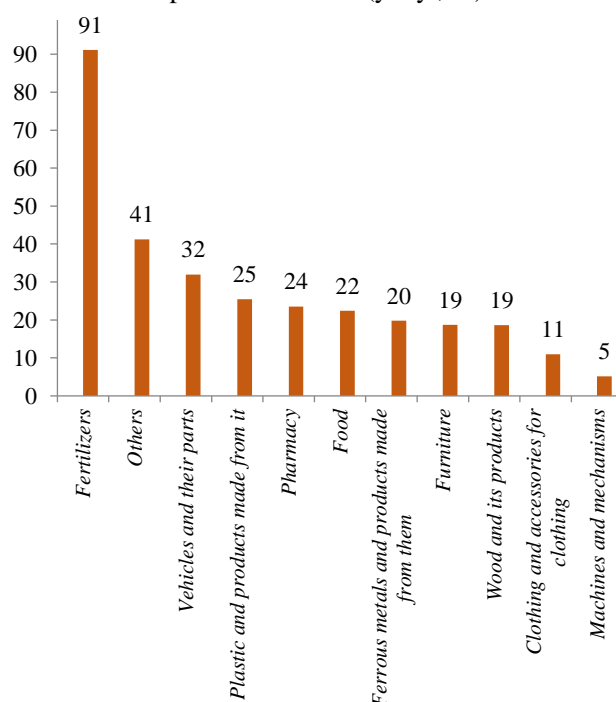
Chart 12. Dynamics of imports by sectors, billion \$



Source: SCC

Import increased by 91.1% on fertilizers, by 32% on vehicles and parts, by 25.4% on plastics and products, by 23.5% on pharmaceuticals, by 22.4% on food products, by 19.8% on ferrous metals and products, by 18.7% on furniture and parts, by 18.6% on wood and wood products, by 11% on clothes and clothing accessories, by 6.8% on tobacco and tobacco products and by 5.2% on machinery and mechanisms.

Chart 13. Changes in imports of some products in 2022 (y.o.y., %)

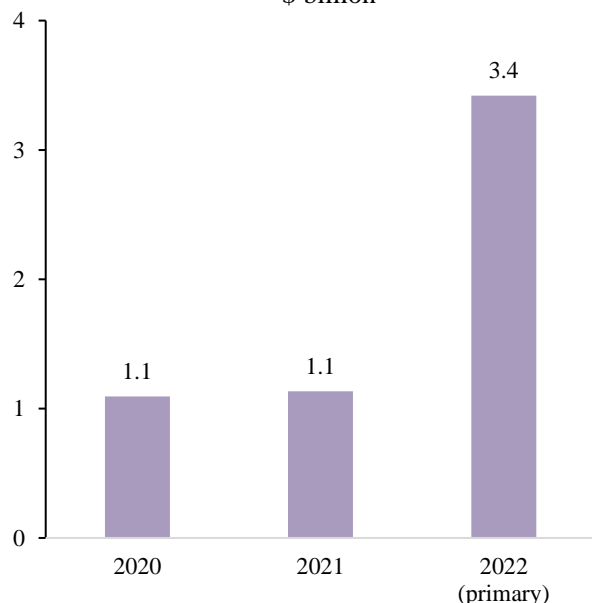


Source: SCC

Russia accounts for 18.8%, Türkiye for 15.8%, China for 14.4%, Germany for 4.6%, Turkmenistan for 3.5%, Kazakhstan for 3.4%, the USA for 3.3%, Iran for 3.3%, Italy for 2.3% and Japan for 2% of imported products.

According to preliminary data, remittances to the country yoy increased by about 3 times to \$3.4B.

Chart 14. Remittances entering the country, \$ billion



Source: CBA

Capital inflows from foreign enterprises and organizations continued over the period. According to the SSC, FDIs amounted to AZN3.6B equivalent (19.4% of total investments).

Investor funds from the UK, Switzerland, Japan, the USA, Türkiye, Norway, Russia, Iran, India and France accounted for 94.1% of total FDIs.

Strategic FX reserves still exceed internationally accepted adequacy norms. As of 31.12.2022, strategic FX reserves sufficed for 35-month worth of import of goods and services (considering the import

of goods and services for 9 months of 2022). Strategic reserves (74% of GDP) exceeded broad money supply in manat (M2) by 3.4 times (M2 as of 01.10.2023).

## II. MACROECONOMIC DEVELOPMENTS IN AZERBAIJAN

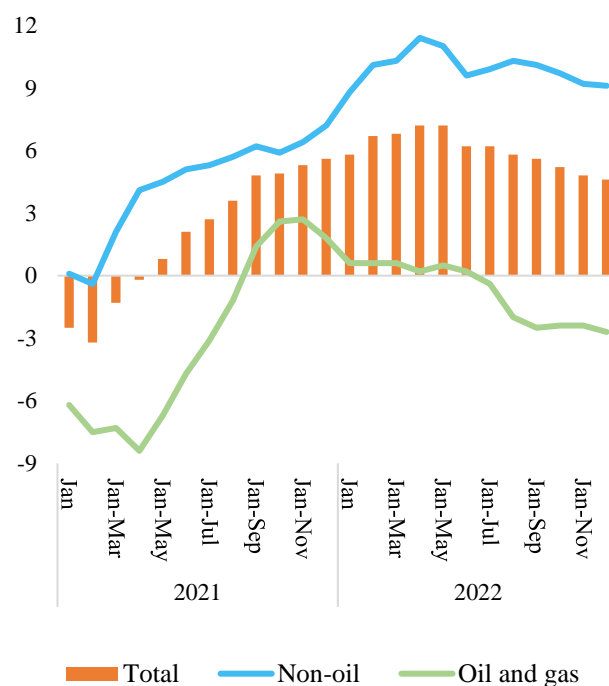
### 2.1. Economic activity

*In 2022 economic activity continued, driven mainly by the nonoil and non-gas sector. High economic activity also weighed on employment. All aggregate demand components underpinned economic activity.*

**Economic growth.** According to the SSC, in 2022 GDP increased by 4.6% in real terms to nominal AZN133.8B. Per capita GDP amounted to AZN13292.

Oil and gas value added decreased by 2.7% to nominal AZN64B. 32.6 million/ton crude oil (yoy down by 5.6%) and 35 billion cubic meters natural gas (yoy up by 7.3%) was extracted over the period. Total production value in oil products yoy decreased by 4.2% in real terms.

Chart 15. Economic growth, in comparison to corresponding period of previous year, %



Source: SSC

Non-oil value added yoy increased by 9.1% in real terms to nominal AZN69.8B. Production in the non-oil and gas segment of the industry increased by 7.1%.

In 2022, there was 3.4% increase in agriculture. Production of livestock products increased by 3.4%, and plant products increased by 3.3%. Services posted growth as well. Freight and passenger transport yoy increased by 12.8% and 33.5% respectively, information and communication

increased by 14.8%. Tourism grew by 58.2% on annual due to removal of pandemic-related restrictions.

Table 1. GDP structure, weight, %

Sectors	2021	2022
Industry	42.5	51.1
Construction	5.9	4.8
Agriculture, forestry and fishery	5.9	4.8
Trade, repair of vehicles	10.1	8.2
Transport and warehousing	6.9	6
Tourism and catering	1.3	1.6
Information and communication	1.8	1.4
Other	17.2	14.7
Net taxes on products and import	8.4	7.4

Source: SSC

CBA's real sector survey results confirm that economic activity elevated. The BCI was mainly positive on sectors.

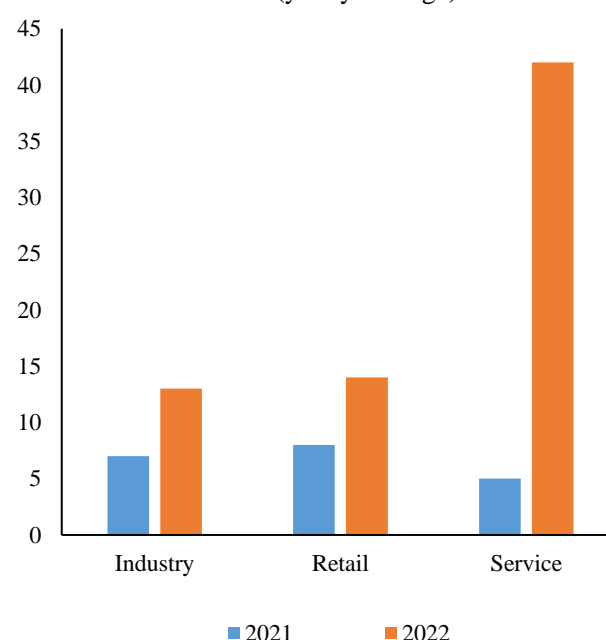
The BCI on the industry was positive driven by the chemical industry, knitwear, food products and beverages sub-sectors.

The BCI on sub-sectors of the industry including machine-building, metallurgy, construction and plastic products was in the negative zone.

The trade BCI was zoned positively over the period, particularly on production of electric appliances and household goods.

The services BCI yoy increased considerably. Except on healthcare, the BCI was higher on other areas year over year.

Chart 16. Business confidence index, (yearly average)



Source: RSM findings based on CBA estimations <sup>2</sup>

<sup>2</sup> Industrial BCI = (output – final goods inventory + production expectations)/3

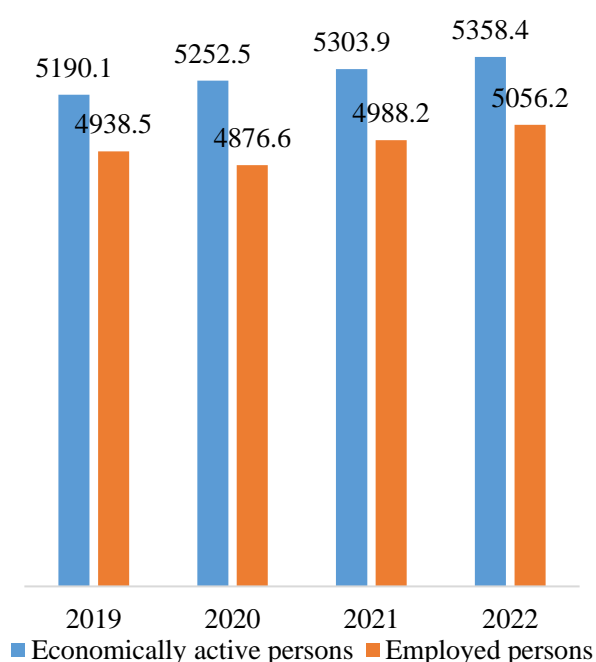
Services BCI = (business condition + actual demand + demand expectation )/3



**Employment.** As of 1 January 2023 total labor force was 5358.4 thousand persons, yoy up by 54.5 thousand persons. Employed population numbered 5056.2 thousand persons, yoy up by 68 thousand persons.

Salaried labor yoy increased by 1.6% to 1732.5 thousand persons – 903.3 thousand persons were engaged in the public and 829.2 thousand persons in the non-public sectors.

Graph 17. Dynamics of economically active and employed persons (in thousands)



Source: SSC

*Trade BCI = (actual sale – changes in goods inventory + sale expectations)/3*

23.7% of hired labor in enterprises and organizations was involved in production: 7.2% in construction, 7.5% in processing, 3.6% in agriculture, forestry and fishery, 1.9% in mining, 1.9% in water supply and waste management, 1.6% in electricity, gas and steam production, distribution and supply.

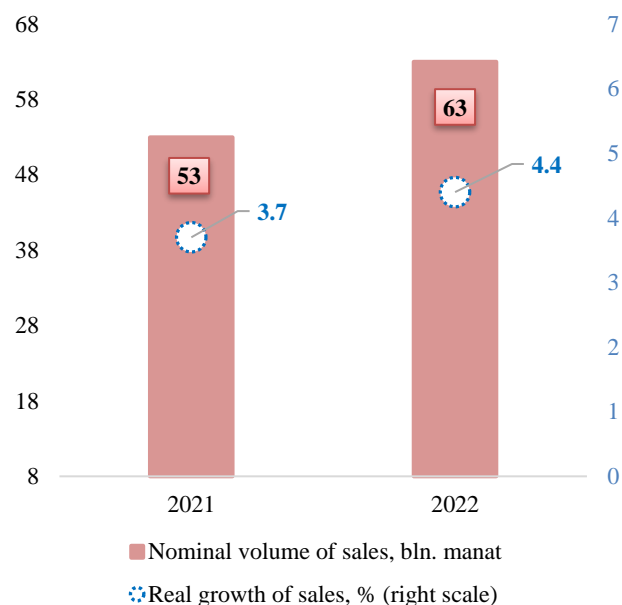
Results of RSM by the CBA suggest that, in Q4 2022 employment expectations of economic agents were positive in the industry, and negative in other sectors compared with Q4 2021.

**Aggregate demand.** All aggregate demand components supported economic growth.

Aggregate demand expanded due to consumer demand. Goods and services sold in the market to meet consumer demand yoy increased by 4.4% in real terms to AZN63B. Every consumer spent

on average AZN521.5 in the consumer market (yoy up by AZN81).

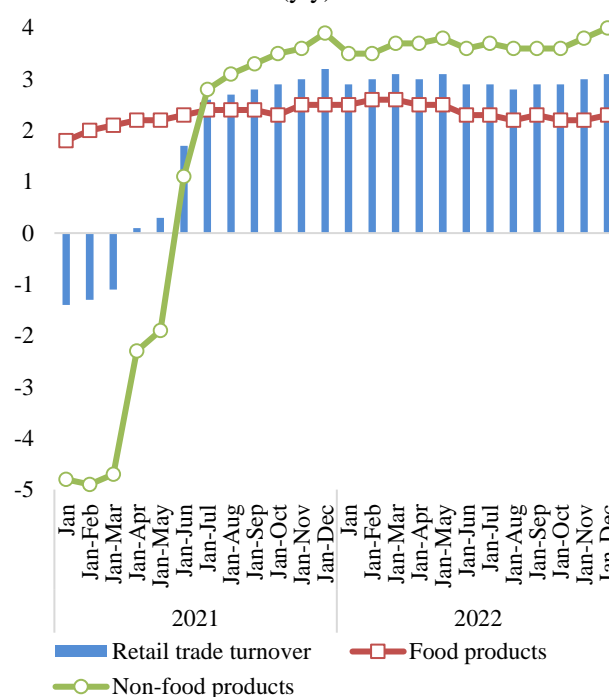
Chart 18. Change in volume of sales in consumer market



Source: SSC

In 2022 retail trade turnover yoy increased by 3.1% in real terms to AZN52.2B. Retail commodity turnover on food products, beverages and tobacco products increased by 2.3%, and non-food trade turnover increased by 4%.

Chart 19. Growth in retail trade turnover, (y/y) %



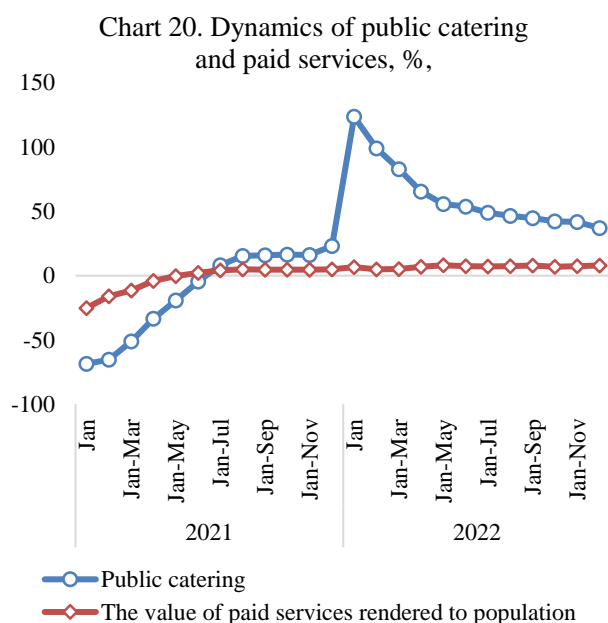
Source: SSC

Consumers spent over half of their funds (56.3%) on food, beverages and tobacco products in retail trade outlets.

Every consumer purchased, on average, AZN431.8 worth of goods (yoy up by AZN64 in nominal terms) in retail trade – AZN243.2 on food, beverages and tobacco products, and AZN188.6 on non-food stuff.

Public catering turnover yoy increased by 37% in real terms. Paid services to the population increased by 8% in real terms to AZN9.2B. Per capita

paid services consumption yoy increased by AZN144.7 to AZN919.1 on average in nominal terms in 2022.

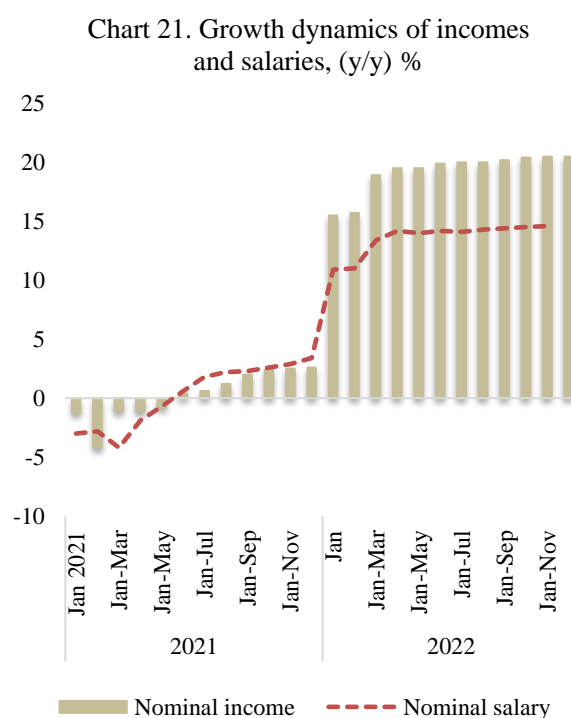


Source: SSC

Growth dynamics of nominal income of the population was the main factor in the rise of consumer demand in 2022. Nominal growth rate of income of the population exceeded average inflation growth, due to growth of income in real terms.

According to the SSC, money income of the population increased by 20.5% to AZN68.9B in nominal terms. Per capita money income was AZN6.8 thousand. Population's disposable income increased by 20.8% to

AZN61.9B. Average monthly nominal salary of hired labor yoy increased by 14.6% to AZN829.9 over 11 months of 2022.



Source: SSC

Lending activity also weighed on the consumer demand. Loans to households increased by 31% in 2022 to AZN11.3B.

Growth in the real sector and in consumer demand weighed on consumer expectations as well. In last quarter, the CCI estimates based on findings of the survey 'Households financial behavior and intentions' on average improved

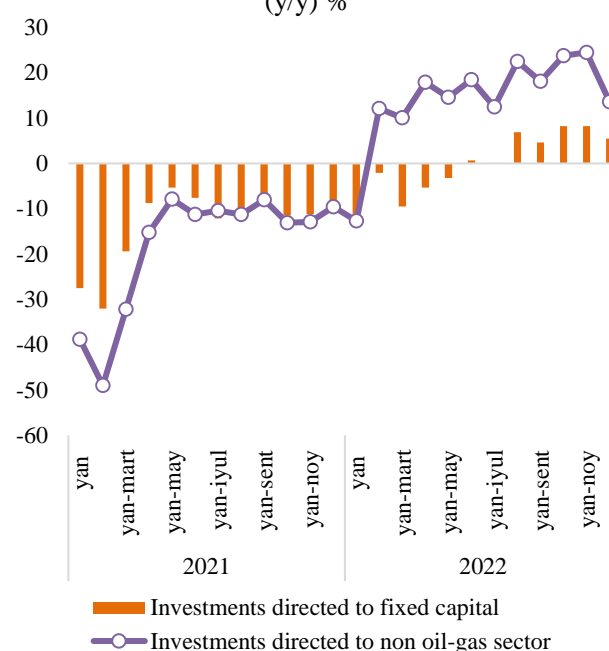
compared to the previous year. Note that, this indicator rests upon ‘Family’s financial condition expectation’, ‘Expectation on country’s economic standing’, ‘Savings probability’ and ‘Unemployment expectations’ surveys among various income households.

Government spending was critical in supporting domestic demand. State budget expenditures amounted to AZN32.1B (yoy up by 16.9%)<sup>3</sup>

AZN11.6B worth of funds were channeled to social spending (compensation for employees, pension and social allowances, medicine and food), yoy up by AZN1.3B or 12.4%.

Investment demand posted growth along with consumer demand. According to the SSC, over the period, funds invested in the economy yoy increased by 5.5% in real terms to AZN18.3B. Investment in the non-oil and gas sector yoy increased by 13.6% in real terms.

Chart 22. Dynamics of investment (y/y) %



Source: SSC

AZN1.5B (8.4% of total investments) worth of funds were channeled to the non-oil and gas industry. The public sector accounts for 50.7% and the private sector for 49.3% of total investments.

80.6% of investments stemmed from internal and 19.4% from foreign sources. Funds of enterprises and organizations prevailed in total investments (49.3%), the share of the budget (36.4%) and individual funds (6.7%) were up year over year.

<sup>3</sup> <http://www.maliyye.gov.az>

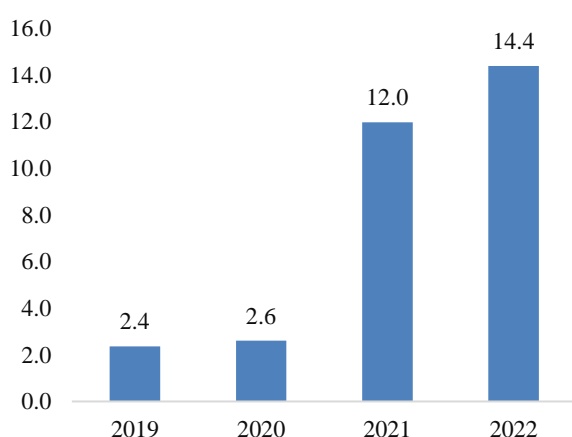
## 2.2. Inflation

*Rising inflationary pressures in main trade partners over the reporting period weighed on domestic inflation developments and expectations. If the trends observed over last months of the year continue, as of end-2023 the inflation rate is expected to gradually fall and edge near to the target band.*

### Consumer Price Index (CPI).

According to the SSC, annual inflation stood at 14.4% in 2022 (December 2022 vs December 2021). Average annual inflation (Jan-Dec 2022 vs Jan-Dec 2021) stood at 13.9%.

Chart 23. 12-month inflation , in %



Source: SSC

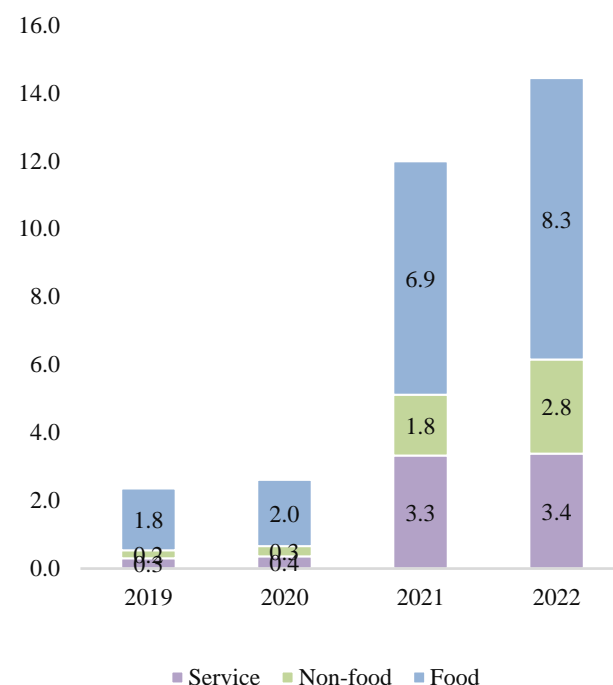
Total inflation was mainly driven by food price increase. Annual food

inflation was 19%, average annual food inflation was 19.5% in December 2022.

Non-food prices increased by 11.9% on annual and by 8.6% on average annual basis in December 2022. Prices for services increased yoy by 10.2%. Average annual service inflation was 10.4%.

In general, in December food prices made 8.2 pp, non-food prices 2.8 pp and changes in prices and tariffs of services 3.4 pp contribution to annual inflation.

Chart 24. Contributions to CPI , in percentage points

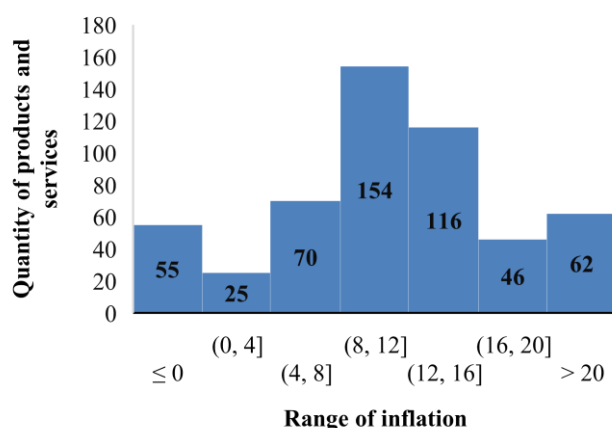


Source: SSC, CBA

Prices of 10.4% of goods and services included to the consumer basket

either decreased or remained unchanged in December.

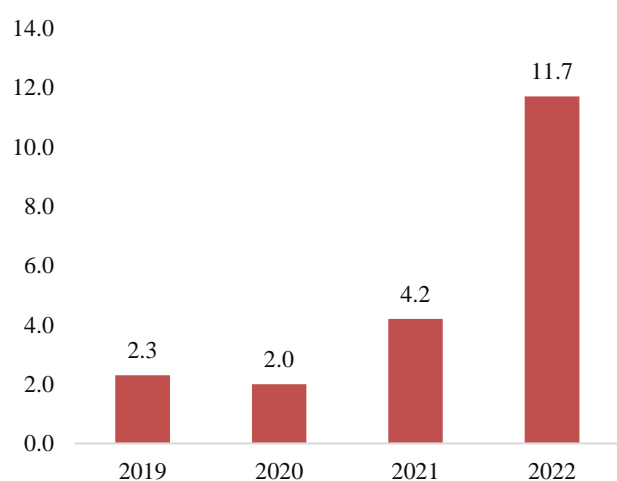
Chart 25. Distribution of annual inflation in terms of the number of goods and services in the consumer basket



Source: SSC, CBA

Average annual core inflation calculated by excluding changes in regulated prices and prices for seasonal agricultural products was 11.7% in January-December 2022. Annual core inflation was 14% in December.

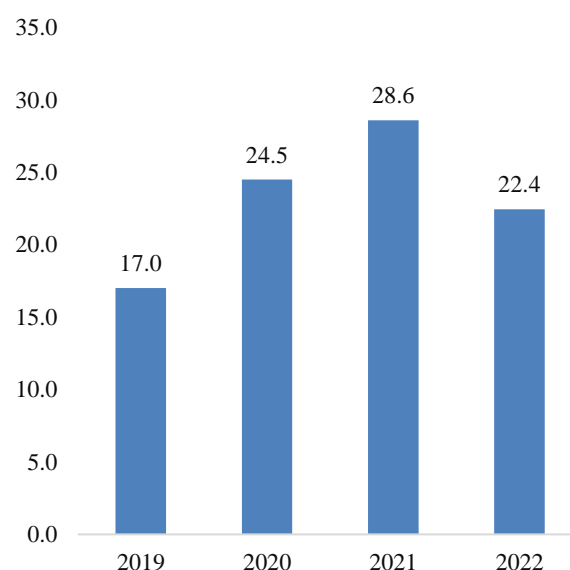
Chart 26. Change of average annual core inflation, in %



Source: SSC

Dynamics of actual inflation weighed on inflation expectations as well. According to December surveys on Q4 2022, 82% of households expect inflation in the upcoming 12 months. 22% expects inflation pace to be higher. However, the share of households that expects higher inflation dropped by 6.2 pp compared with Q4 2021.

Chart 27. Share of households expecting increase of inflation rate, in %



Source: CBA

Analysis of inflationary factors suggests that over half of direct and indirect price hike stem from factors of foreign origin. High annual import prices (23.4% in November 2022) are attributable to surge in global commodity

prices amid global geopolitical tensions, rising transportation-logistic expenses and high inflation in trade partners of Azerbaijan. Average weighted inflation (import weighted) across main partners is estimated to have shifted from 11.7% in December 2021 to 20.4% in December 2022.

The balance of payments surplus, the FX market stability, the appreciated NEER, the monetary condition shaped under monetary policy decisions, the new operational framework introduced in September and anti-inflationary measures by the government had a downward effect on inflation.

According to updated forecasts, in case assumptions on the baseline scenario remain stable, annual inflation is expected to be around 8% in 2023.

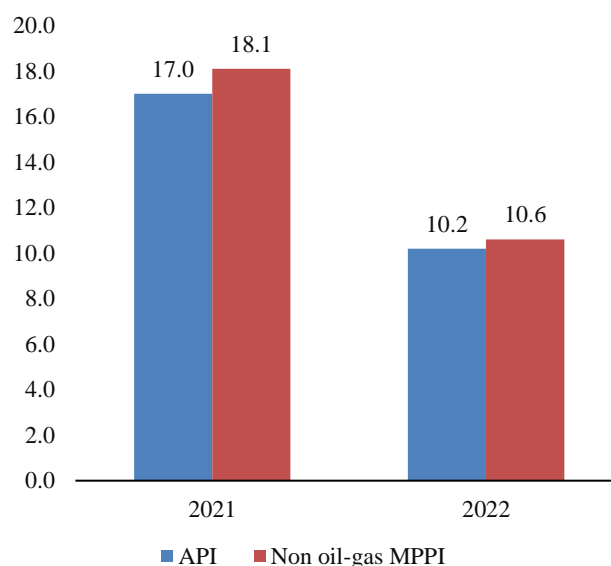
**Producer Price Index.** According to the SSC, in December 2022 the APPI yoy increased by 10.2%.

In December, the IPPI increased by 15.5% annually. The IPPI grew by 15.7% on oil-gas products, and by 10.6% on non-oil products. The growth rate of the non-oil and gas PPI decreased by 7.5 pp compared with December 2021. The

PPI in processing increased by 15.4% on annual.

On the backdrop of high APPI, price index on food production increased by 18.4%, which contributed to rise in food prices compared to the previous year

Chart 28. Annual change of PPI, %



Source: SSC

In December 2022 prices of transport and warehousing yoy increased by 6.8%. Cost of freight transportation increased by 4.7% and passenger transportation by 30.7%. Increase in prices of passenger transportation related to price hike in air transportation (42.9%). The warehousing price index increased by 0.1%. Postal and courier service prices yoy increased by 50.3%,

due to 58.9% price hike for postal services.

In December prices of ICT services yoy decreased by 0.8%, advertising services increased by 3.1% on annual.

**Real estate prices.** According to the SSC, in Q4 2022 the price index in the housing market yoy increased by 8%. The price index increased by 7.2% in the primary housing market and by 8% in the secondary housing market.



### III. THE MONETARY AND EXCHANGE RATE POLICY

#### 3.1. The FX market and the exchange rate of the manat

*In 2022 the exchange rate of the manat against foreign currencies was formed in accordance with the supply-demand ratio in the FX market. The balance of payments surplus and the macroeconomic framework supported the FX market equilibrium. Large balance of payments surplus was accompanied by more supply in the FX market.*

The volume of operations in the FX market increased on all market segments in 2022.

Cashless transactions in the FX market yoy increased by 13.9% to \$31.7B equivalent<sup>4</sup>: 83.4% in the USD and 16.6% in other currencies. The Interbank FX market accounted for 28.6%, the Intrabank FX market for 71.4% of operations.

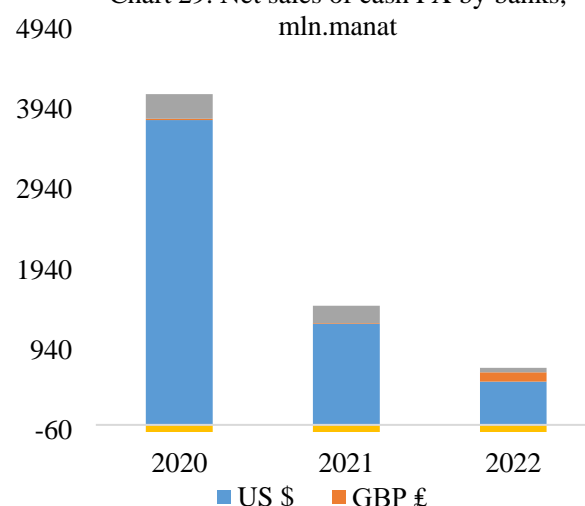
Interbank FX market operations yoy increased by 9.6% (\$9B equivalent).

99.1% of transactions were conducted in the USD. Currency operations in the Interbank FX market were mainly conducted over the Bloomberg platform.

Intrabank FX market operations totalled \$22.6B (yoy up by 15.8%) (77.1% in USD). Legal entities accounted for 93.2% of Intrabank FX market operations.

Cash currency traded by banks yoy increased by 27% to \$5.1B (85.7% in USD). Net cash currency sale yoy fell by 5 times due to the fact that from April until the end of the year banks' currency buy operations exceeded sell-operations.

Chart 29. Net sales of cash FX by banks, mln.manat



Source: CBA

Note: Positive zone stands for sell, negative zone for buy operations.

<sup>4</sup> Including transactions with the the USD, the euro, the pound, the Russian ruble

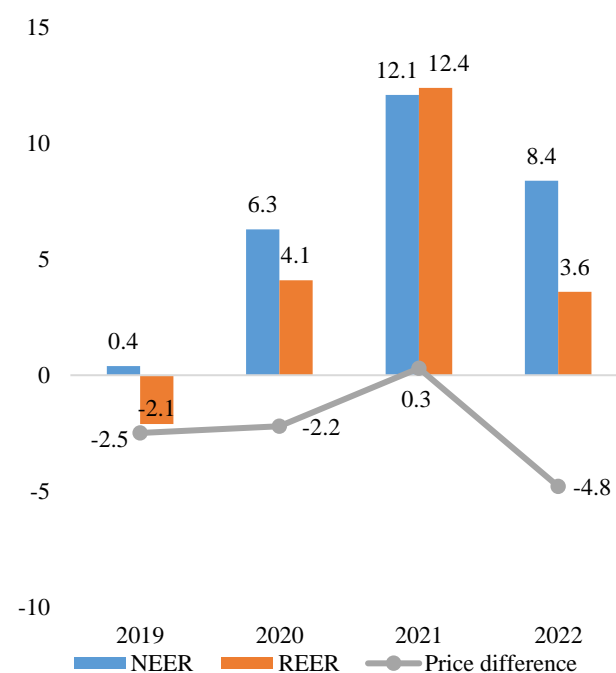
The CBA continued currency auctions to arrange the sale of foreign currency provided by the State Oil Fund of Azerbaijan Republic. The Bank held total of 99 currency auctions over the reporting year. The CBA's purchase-oriented intervention in the FX market amounted to \$2048M.

The official exchange rate of the manat against the USD was determined based upon the average exchange rate on interbank transactions over the period (both auction and over-the counter on the Bloomberg platform). The average official USD/AZN exchange rate was AZN1.7 over the year. Buy-sell exchange rates set by banks were close to the official one. Commercial banks' average buy/sell rate was 1.6971/1.7024.

The exchange rate of the manat mainly strengthened against currencies of trade partners. The manat appreciated against the euro, the Turkish lira, the English pound, the Kazakh tenge, the Japanese yen, the Swiss franc and the Ukrainian hryvnia, and depreciated against the Russian ruble and the Georgian lari.

The dynamics of bilateral exchange rates influenced that of effective exchange rates. In general, total trade-weighted non-oil NEER of the manat appreciated 8.4% and the REER by 3.6%. Since inflation in Azerbaijan is lower than the average inflation in partner countries, it had a reducing effect on the REER.

Chart 30. Effective exchange rates (annual change)



Source: CBA

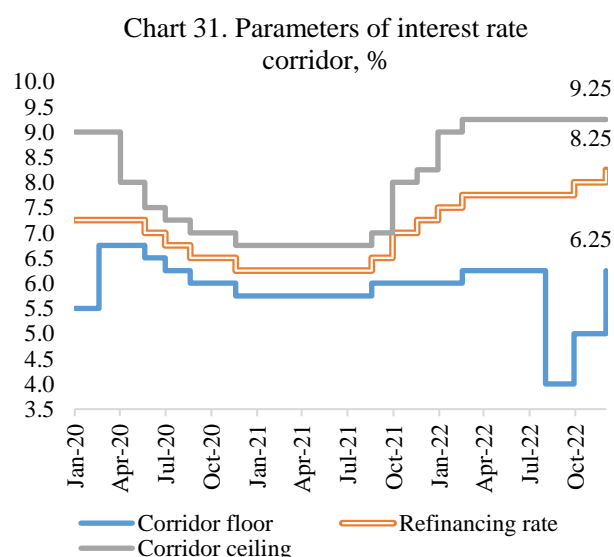
A stronger NEER of the manat acted as one of the factors to contain the inflation import.

### 3.2. Monetary policy tools and the money market

*In 2022, the monetary policy of the CBA was oriented towards easing inflation pressures by means of the adequate monetary condition. The Bank implemented a number of measures on the improvement of the monetary policy's operational framework. These measures contributed to strengthening the pass-through of monetary policy decisions to inflation through interest rate channel. In 2022, interbank interest rates began to react to interest rate corridor parameters of the CBA for the first time.*

The CBA took decisions on interest rate corridor parameters on liquidity operations, considering developments in the global and national economies, the level of realization of inflation risks, the liquidity position of the banking system and updated macroeconomic forecasts. When making monetary policy decisions the Bank took into account a time interval required for their pass-through to the real economy. The Management Board

of the CBA discussed interest rate corridor parameters 9 times over the reporting period in 2022 (last time in December). The refinancing rate was shifted from 7.25% to 8.25%, the ceiling of the corridor from 8.25% to 9.25%. The floor of the interest rate corridor was shifted to 4% from 6.25% with the application of monetary policy tools in a new configuration from 1<sup>st</sup> September 2022. However, according to prior explanatory note the Bank revised the width of the corridor, the floor of the corridor was shifted to 5% in end-October and to 6.25% in December. The CBA published interest rates related decisions with analytical comments.



Source: CBA

The CBA began to use monetary policy tools in a new configuration since September 2022. Standing facilities were commissioned and the range of open market operations was expanded. As a standing facility, 1-day deposit operations are used for liquidity absorption, 1,3,6 and 9-month note auctions have been held since October 2022 for liquidity absorption within the framework of the improvement of open market operations. 7-day Repo operations have been added into the arsenal of tools for liquidity absorption along with notes. For liquidity providing purposes, the Bank is planning to conduct 1-day Reverse repo operation as a standing facility and 7-day Repo operations as open market operations.

Amid excess liquidity in the banking system, demand for CBA's sterilization tools, in particular for liquidity absorbing standing facilities was high. In September-December, average volume of one-day deposit operations was AZN464.3M.

In general, demand prevailed over supply at note placement auctions. The CBA held total of 90 various term note

auctions in 2022. As of end-December, total outstanding amount of sterilization via notes was AZN1339M. Return on notes was prone to increasing towards the end of year.

Return at recent auctions was 6.17% on 28-day, 6.24% on 84-day, 8% on 168-day, 8.44% on 252-day notes. Yield on CBA notes is critical in terms of formation of a yield curve affecting interest rates of other financial tools.

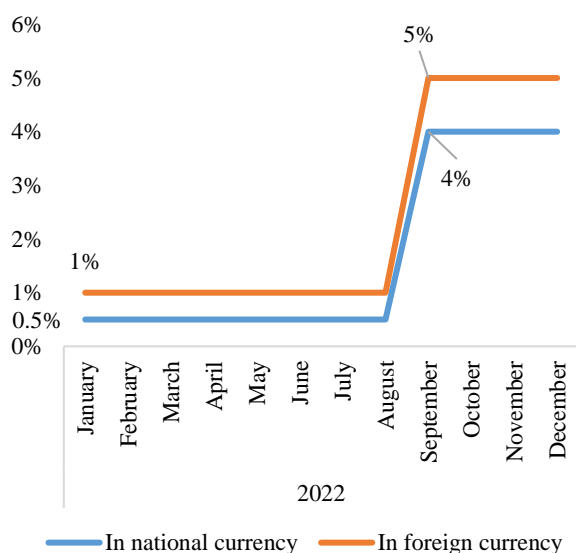
AZN 42.5M worth of 7-day Repo operations were conducted over the year.

Amid high inflationary pressures to manage money supply effectively, the CBA decided to use reserve requirements more actively. Constant application of the reserve requirements on an average basis allowed banks to manage liquidity flexibly. Since September 15, banks began to maintain reserve requirements under new norms (4% on deposits in the national currency and precious metals and 5% on foreign currency denominated deposits).

Monitoring findings display that banks' cumulative balances on correspondent accounts with the CBA

exceeded total funds to be maintained as required reserves.

Chart 32. Reserve requirement rates, in %

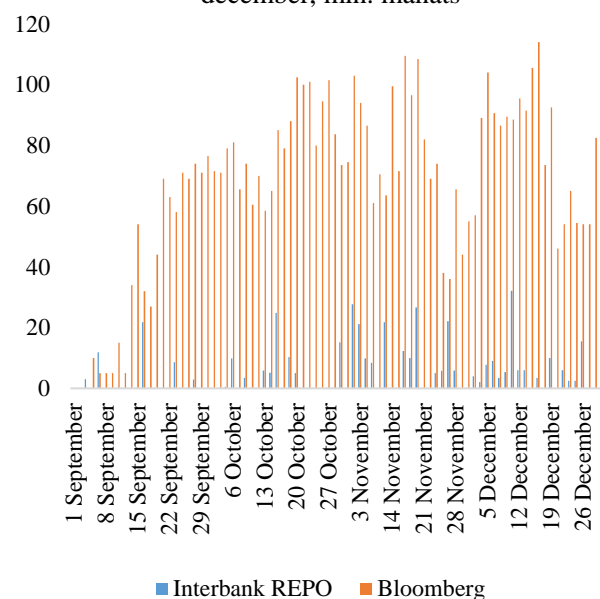


Source: CBA

To allow an effective application of the new operational framework, the Bank proposed an alternative operating platform to activate the interbank money market. A new collective agreement on conclusion of interbank unsecured loan transactions in the manat on the Bloomberg trading system took effect. In September-December, banks concluded AZN5.6B worth of 587 transactions in the platform launched for unsecured operations in the Bloomberg system. 79% of those operations were one-day operations.

Participation in the secured money market was notably high during the reporting year. AZN2.1B worth of 756 transactions were concluded in the interbank Repo market in 2022. Notes issued by the CBA are used as securitization in the Repo market and have a positive effect on activation of the interbank market. 39.3% of operations in terms of number and 67.4% of operations in terms of volume were based upon CBA notes.

Chart 33. Money market in september-december, mln. manats



Source: CBA

In general, the new operational framework serves to strengthen the interest rate channel in the monetary policy transmission and the formation of an alternative anchor of the monetary

policy. Because of the measures implemented, interbank interest rates started to react to the change in the interest rate corridor parameters of the CBA. Consequently, in December average interest rates on one-day transactions in the unsecured interbank money market were 0.3 pp higher than in November.

The Central Bank will further use all tools and mechanisms in its arsenal to contain excess expansion of aggregate demand. When taking interest rate corridor related decisions, the CBA will consider the cumulative tightening rate of the monetary policy and a time interval required for its pass-through to inflation. In case of ongoing drop in annual inflation indicators and forecasts, the Bank will first take a pause on monetary policy tightening, and then will consider options for its normalization, i.e. loosening.

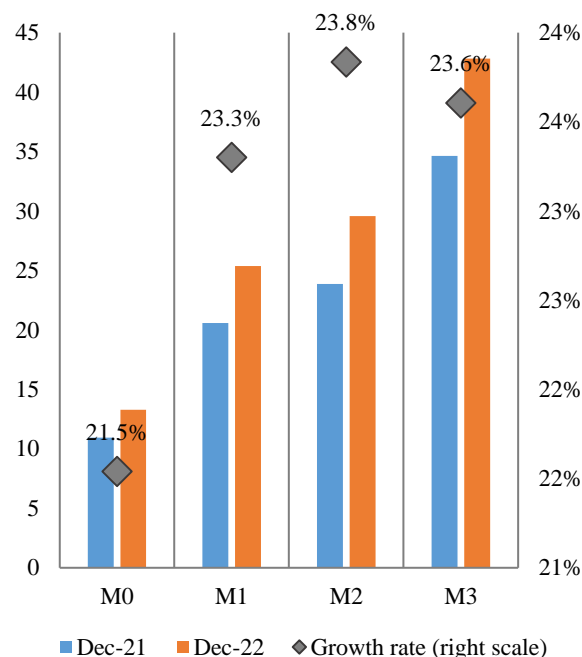
### 3.3. Money supply

*In 2022 money supply in the manat kept expanding. The Central Bank strived to contain excess money supply growth with its operations.*

Money base in the manat increased by 12.1% to AZN17.5B excluding term deposit operations with certain systemically important banks.

Change in the balance of treasury account, CBA's standing deposit facilities and open market operations affected the base money. Estimates suggest that, had the value of CBA's sterilization operations not increased, the growth rate of base money in the manat would have been 25.4 %.

Chart 34. Money aggregates (bln. azn)



Source: CBA

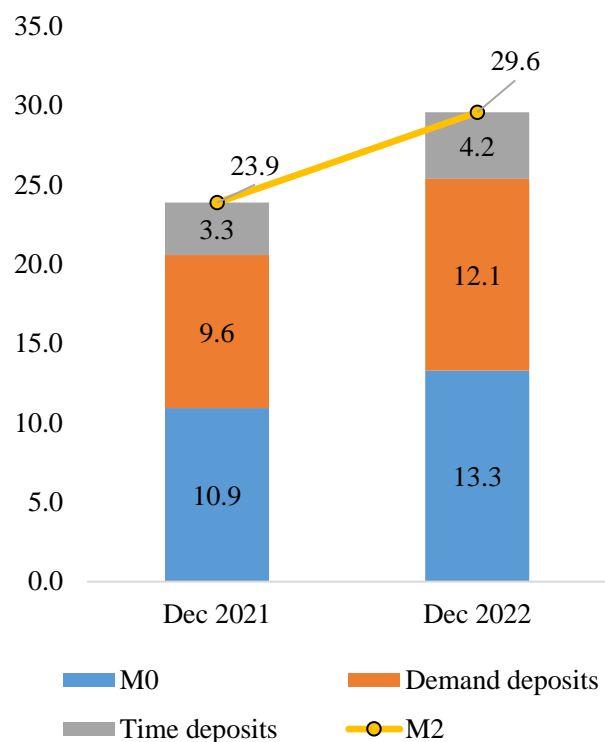
Cash in circulation, a structural element of base money in manat <sup>5</sup> increased by 19.5%, stock of correspondent accounts in the manat decreased by 51.4% (excluding term deposit operations in certain systemically important banks, down by 16.1%).

The growth rate of money supply in the manat surpassed that of base money due to the rise in money multiplier. Money multiplier in manat (broad money supply in manat to base money in manat) increased by 27.2% to

<sup>5</sup> Cash money outside the banking system, cash in bank ATMs and cash offices.

1.69. Broad money supply in the manat (M2) increased by 23.8% to AZN29.6B.

Chart 35. Dynamics of broad money supply (bln. azn)

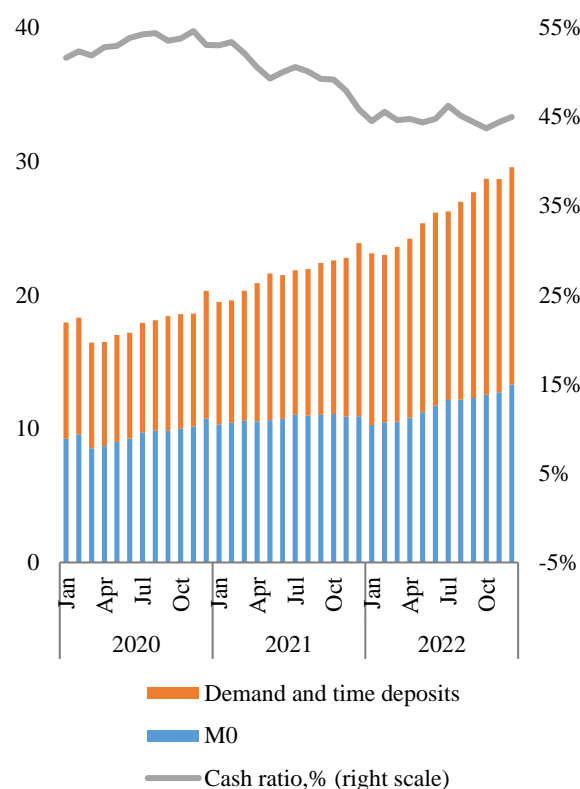


Source: CBA

Structural elements of M2 money aggregate performed

differently. M0 cash money supply increased by 21.5%, demand savings and deposits in the manat increased by 25.3% (the weight in M2 as of endperiod 40.8%), and term savings and deposits increased by 27.2% (the weight in M2 as of the end of period 14.2%).

Chart 36. M0/M2 ratio



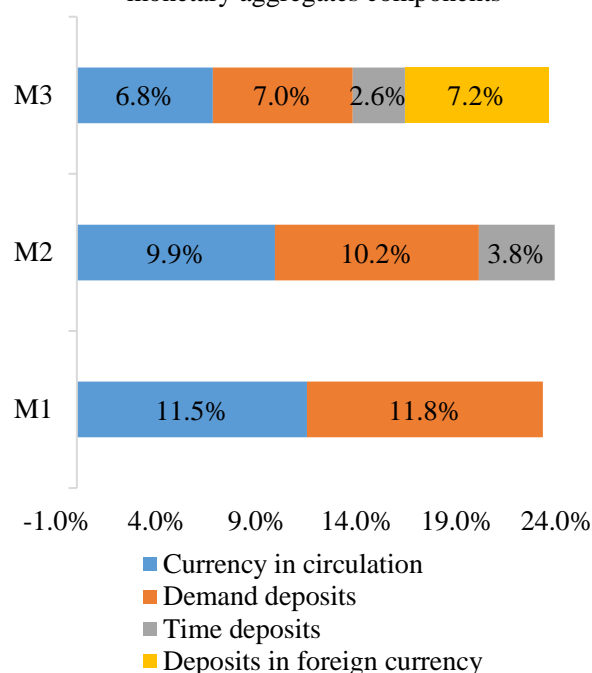
Source: CBA

M0 ratio to M2 decreased by 1pp, because the growth rate of cashless money (25.8%) outstripped that of cash money supply beyond the banking system.

Demand savings and deposits were the key contributor to M2 money supply in terms of amount (42.8%). Demand savings and deposits account for 10.2 pp of 23.8% growth of M2.



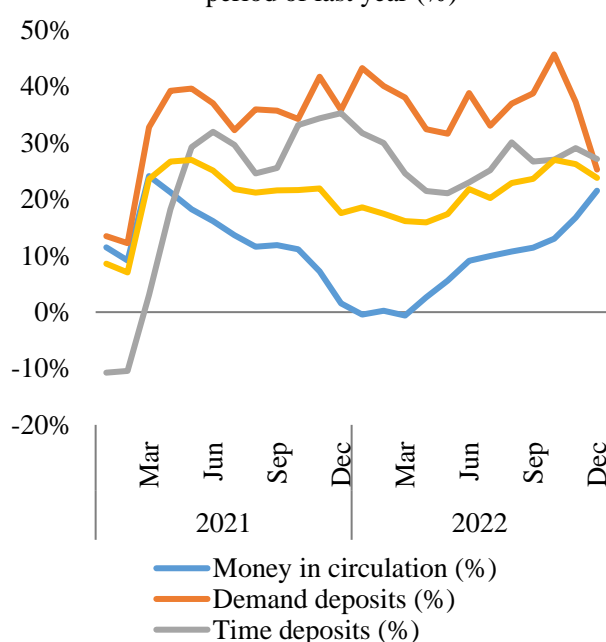
Chart 37. Contribution to the change in monetary aggregates components



Source: CBA

Out of structural elements of money supply, term savings and deposits increased at a faster pace year over year.

Chart 38. Dynamics of M2 and its components compared to the corresponding period of last year (%)

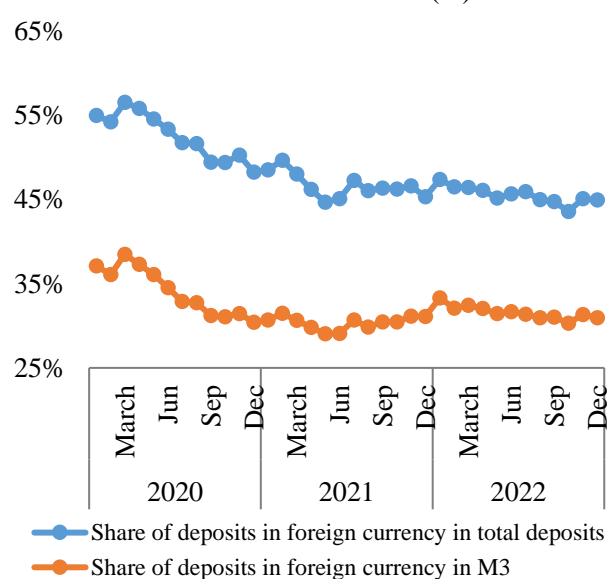


Source: CBA

Broad money supply (M3) increased by 23.6% to AZN42.8B as of end-period. Both NFAs (up by 24.1%) and NDAs (up by 22.9%) had an upward effect on M3 money supply.

Dollarization kept decreasing. Foreign currency denominated savings and deposits increased by 23.1%. Its weight in total savings and deposits decreased by 0.5 pp to 44.9%. Posting the same behavior, the weight of foreign currency denominated savings and deposits in M3 money aggregate decreased by 0.1 pp to 31% end of period.

Chart 39. Dollarization (%)



Source: CBA

The share of foreign currency in deposits of legal entities stood at 52.8% as of end-year. Dollarization of savings of individuals stood at 39.2% as of end-period, 1.8 pp down compared with the early year. Dollarization of deposits of households decreased by 5 pp to 35.6% as of end-period, less savings of non-resident individuals.

The CBA will use tools at its disposal in 2023 as well to allow adequate change of money supply in response to monetary policy targets.

## Charts and tables

### Charts

Chart 1	Business and Consumer Confidence indexes in OECD countries -----	4
Chart 2	The Purchasing Managers' Index (PMI)-----	5
Chart 3	Economic growth projections -----	5
Chart 4	Global commodity index yearly dynamics -----	7
Chart 5	Dynamics of demand and supply in the global oil market -----	7
Chart 6	Global Supply Chain Pressure index -----	8
Chart 7	Inflation in some developing countries -----	8
Chart 8	Trade balance-----	10
Chart 9	The main countries in trade -----	10
Chart 10	Countries to which crude oil and oil products are exported -----	11
Chart 11	Changes in export of some products -----	11
Chart 12	Dynamics of imports by sectors -----	12
Chart 13	Change in imports of some products -----	12
Chart 14	Remittances entering the country -----	13
Chart 15	Economic growth -----	14
Chart 16	Business Confidence Index -----	15
Chart 17	Dynamics of economically active and employed persons -----	16
Chart 18	Change in volume of sales in consumer market -----	17
Chart 19	Growth in retail trade turnover -----	17
Chart 20	Dynamics of public catering and paid services -----	18
Chart 21	Growth dynamics of incomes and salaries -----	18
Chart 22	Dynamics of investments -----	19
Chart 23	12-month inflation -----	20
Chart 24	Contribution to CPI -----	20
Chart 25	Distribution of annual inflation in terms of the number of goods and services in the consumer basket -----	21
Chart 26	Change of average annual core inflation -----	21
Chart 27	Share of households expecting increase of inflation rate -----	21

---

Chart 28	Annual change of PPI -----	22
Chart 29	Net sales of cash FX by banks -----	24
Chart 30	Effective exchange rates -----	25
Chart 31	Parameters of interest rate corridor -----	26
Chart 32	Reserve requirements-----	28
Chart 33	Money market in september-december-----	28
Chart 34	Money aggregates -----	30
Chart 35	Dynamics of broad money supply in manat -----	31
Chart 36	M0/M2 ratio -----	31
Chart 37	Contribution to the change in monetary aggregates components -----	32
Chart 38	Dynamics of M2 and its components -----	32
Chart 39	Dollarization -----	32

## Tables

Table 1	GDP structure-----	15
---------	--------------------	----

---

**Central Bank of the Republic of Azerbaijan**

**Tel.: (+99412) 493 11 22**

**<http://www.cbar.az>**

**Address:** R.Behbudov Str, 90, AZ1014, Baku