BANK INDONESIA
BANK SENTRAL REPUBLIK INDONESIA

SYNERGY AND INNOVATION STRENGTHENING RESILIENCE AND REVIVAL TOWARDS ADVANCED INDONESIA

BANK INDONESIA
ANNUAL MEETING 2022

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Speech of the Governor of Bank Indonesia
BANK INDONESIA ANNUAL MEETING
Jakarta, 30 November 2022

We are honored to welcome,

- The President of the Republic of Indonesia, Joko Widodo,

With respect to,

- Leaders and Members of DPR and DPD RI,
- Leaders of State Institutions,
- Ministers of the Advanced Indonesia Cabinet,
- Chairman and Members of the OJK and LPS Board of Commissioners,
- Our predecessors of Governors and fellow Members of the Board of Governors of Bank Indonesia,
- Governors, Mayors and Regents of Regional Heads from all over Indonesia,
- National Banking, Corporate and Media Leaders,
- The recipients of the 2022 Bank Indonesia Awards,
- Invitees.

Assalamu'alaikum Warahmatullahi Wabarakaatuh,
Greetings to everyone, Shalom,
Om Swastyastu, Namo Buddhaya,
Greetings of Virtue.

First of all, let us express our gratitude to the presence of *Allah subhanahu wa ta'ala*, God Almighty, for His mercy and blessing we were able to gather at the **2022 Bank Indonesia Annual Meeting** today. With all humility, we would like to express our **gratitude to His Excellency, the President of the Republic of Indonesia**, who is willing to attend along with all the invitees.

We congratulate banks, corporations, and individuals who received the **2022 Bank Indonesia Awards** totaling 58 (fifty eight) awards in 4 (four) areas and 18 (eighteen) categories in the field of managing monetary and financial system stability, payment systems and the management of Rupiah, the development of MSMEs and the Sharia financial economy, as well as supporting Bank Indonesia policies. This award is held annually, in conjunction with the Bank Indonesia Annual Meeting, as an appreciation and at the same time national recognition to partners who have supported the implementation of Bank Indonesia's tasks.

At this auspicious opportunity, allow us to present an evaluation of economic performance in 2022 as well as economic prospects and the direction of Bank Indonesia's policies in 2023 which we summarize under the theme **"Synergy and Innovation Strengthening Resilience and Economic Revival Towards Advanced Indonesia"**. Our presentation is presented in six parts, namely: (i) The importance of synergy and innovation as the key to resilience and saving the economy from crisis risk; (ii) The performance and prospects of the global economy that is full of risks and uncertainties; (iii) Performance and prospects of the national economy showing resilience and recovery; (iv) Bank Indonesia's 2022 policy mix to maintain stability and promote economic growth; (v) Synergy and innovation in the national economic policy mix to strengthen resilience and resurgence; and (vi) The direction of Bank Indonesia's policy mix in 2023. **This explanation also serves as the fulfillment of Bank Indonesia's accountability and transparency as mandated in the Bank Indonesia Law.**

Synergy and Policy Innovation: Key to Resilience and Saving the Economy from Crisis Risk

As a small country in an open economic system, Indonesia is not immuned from the impact of global turmoil which often leads to higher risk of economic crisis. What happened in the last 5 (five) years serves as a concrete example. In 2017 and 2018, there was a trade war between the United States (US) and China which caused global financial market turmoil and decreased the volume of world trade. At the same time, to reduce inflation to the 2% target, the US central bank, The Fed, raised its monetary policy interest rate 4 (four) times during 2018 or 9 (nine) times since the normalization of monetary policy began in December 2015, to 2.25%-2.50%, an interest rate hike that President Donald Trump opposed. The impact of the US-China trade war and US monetary policy tightening through trade channel led to the global economic slowdown. The slowdown was felt not only in these two largest economies in the world, but also in other countries due to China's central position in the global supply chain. Even larger and immediate impact occured in financial channel. The US-China trade war caused global financial market panic, foreign capital flight and pressure on exchange rate depreciation in developing countries, including Indonesia. The Rupiah exchange rate depreciated to Rp15,000 per US dollar in mid-2018 before stabilizing at around Rp13,500 per US dollar at the end of 2018 after a large intervention by Bank Indonesia. At the IMF and World Bank Annual Meeting in Bali in October 2018, President Joko Widodo voiced out loud *"The Winter is Coming"*, referring to the famous television drama series *"Game of Thrones"*, to stop the trade war between the two economic giants and seek solutions to save the world economy.

Indonesia was also affected by the extraordinary impact of the Covid-19 pandemic that hit the world since February 2020, almost causing a multidimensional crisis. There are at least 4 (four) crisis threats from Covid-19, namely monetary, social, economic, and humanitarian. The threat of a monetary crisis occurred at the beginning of the Covid-19 pandemic which spread rapidly throughout the world and caused fear and panic with the threat of death and worsening economic conditions. Global financial market panic occured in early April 2020, prompting investors to withdraw their portfolio investments and convert them to more liquid assets denominated in US dollars, known as "cash is the king" phenomenon. This mass global phenomenon led to the large amounts of foreign capital flight in short periods of time from developing countries. Indonesia was no exception and experienced a capital flight of around USD11 billion in just two weeks and caused the Rupiah to weaken to Rp16,575 per US dollar in March 2020, before moving to appreaciate and stabilize at around Rp14,000 per US dollar in December 2020. There was a real threat of a monetary crisis if Bank Indonesia did not persistently intervene in the foreign exchange market and the government bond (SBN) market in a large amount to stabilize the Rupiah exchange rate and save the Indonesian economy.

The threat of a social crisis from the Covid-19 pandemic occured due to the restrictions on mobility, raising unemployment and reducing people's income, especially the lower income class. The policy to restrict mobility must be taken to prevent more deaths due to the rapid spread of the Covid-19 pandemic, while waiting for vaccines to achieve herd immunity. As a result, while people with fixed incomes and the upper middle income class were still able to use their savings to make a living, people on lower income class with non fix income were at risk of starvation as they could not work and had no savings. The ability of the APBN to provide social assistance was crucial to avoiding a social crises. We are grateful that while many countries facing limited fiscal space, the Government of Indonesia was able to increase the budget for social assistance program with direct cash assistance (BLT), health assistance, and funds for pre-employment cards.

The threat of an economic crisis almost occured because the Covid-19 pandemic lasted for a very long time, even its effects are still being felt today.

Restrictions on mobility which must be carried out as part of the handling of the Covid-19 pandemic, have also caused the halt of various economic and financial activities. Income declined had led to significant reduction in the demand for goods and services. Likewise, business activities were limited or even stopped, resulting in a decline in sales, liquidity, profitability, and corporate capital. Debt-equity leverage ratio has increased since the Covid-19 pandemic, both in Advanced Economies (AEs) and in the Emerging Market and Developing Economies (EMDEs). In fact, the number of corporate failures soared to almost the same rate of the global financial crisis, with the largest in the US, then Europe, and EMDEs. The prolonged Covid-19 pandemic also had a scarring effect on corporate conditions and increased risks to financial system resilience and stability. The scarring effect on corporations has a negative impact on the high risk of credit default, large losses, decreased capital, and the risk of failure in individual banks and financial system stability. Consequently, the relaxation on credit restructuring provisions has been implemented in many countries, including Indonesia, to postpone principal and installment payments, thereby providing concessions for the recognition of Non Performing Loan (NPL) in banks.

The Covid-19 pandemic which subsided at the end of 2020, spread again with the delta variant that quickly reached Indonesia in May-August 2021, threatening a health and humanitarian crisis. The delta variant is highly contagious and more virulent in its impact on human health and mortality. The days of May to August 2021 were full of heartbreaking events with hundred of thousands of deaths, hospitals and cemeteries were full, unavailability of medicines and limited medical equipment. Even vaccines were still very limited in number and the Government had to pay a premium to order them. The level of vaccination and the strictness of restrictions on mobility determined the level of spread of the Covid-19 delta variant, as well as its impact on the risks to health, humanity, and economic. However, there was a large disparity in the ability to vaccinate between AEs and EMDEs. In developed countries, the availability of vaccine supplies and large government fiscal spending allowed a faster vaccination rates and therefore a faster economic recovery. Meanwhile in EMDEs, as limited vaccine supply and fiscal spending capacity, the vaccination rate was slower and so was the opening up of mobility and economic activity. As a result, there has been an imbalance in the global economic recovery from the impact of the Covid-19 pandemic, which is faster in AEs and slower in EMDEs.

We should be grateful that in the midst of the global pressures, national economy shows strong resilience and even with a commendable performance.
Over the last 5 (five) years, Indonesia's economic performance has been among the best in the world (Table 1). National economic growth reached more than 5.0% before the Covid-19 pandemic and recorded an average of 3.38% in the 2017 - 2021 period. Even the economic contraction during the Covid-19 pandemic stood at 2.07%, among the smallest in the world. Macroeconomic stability has also been maintained. The average inflation rate was relatively low at 2.60% and never exceeded its target, thus supporting high economic growth. Moreover, the average depreciation of the Rupiah exchange rate was recorded as low as 1.18% with the highest depreciation of 5.97% in 2018 before an appreciation of 3.44% in 2019, thereby volatility was also low. The current account deficit was maintained below 3% of GDP and even very low during the Covid-19 pandemic period and recorded a surplus of USD3.46 billion in 2021. Meanwhile, foreign exchange reserves was high, reached USD144.9 billion at the end of 2021, more than sufficient to pay for imports, government debt, and to support the stabilization of the Rupiah exchange rate. On the other side, the fiscal deficit was maintained below 3% of GDP, and even during the 2020 - 2022 Covid-19 pandemic period the fiscal deficit was among the lowest in the world. Likewise, financial system stability was maintained as indicated by among others a high capital adequacy ratio (CAR), a low NPL ratio, and increasing credit growth in line with the recovery in economic activity and business

Table 1. Indonesia's Selected Economic Indicators (2017-2021)

	2017	2018	2019	2020	2021
Economic Growth (%)	5.07	5.17	5.02	-2.07	3.69
Headline Inflation (%)	3.61	3.13	2.72	1.68	1.87
Current Account (USD billion)	-16.20	-30.63	-30.28	-4.43	3.46
Foreign Exchange Reserves (USD billion)	130.20	120.65	129.18	135.90	144.91
Rupiah Exchange Rate (IDR/USD)	13,565	14,375	13,880	14,040	14,250
Monetary Policy Rate (%)	4.25	6.00	5.00	3.75	3.50

Source: BPS, Bank Indonesia

sectors. Indonesia also continues to record progress in various economic reforms through infrastructure development, downstreaming of natural resources, and digitalization of economic-financial during the Covid-19 pandemic.

Synergy and innovation are the two keywords of Indonesia's economic resilience in the face of global turmoil and for economic revival towards Advanced Indonesia. Synergy is the collaboration of two or more public policy authorities to optimize their policy instruments for achieving common goals for the national economy, while respecting and upholding each other's independence. Synergy comes from the understanding by each authority on the need to achieve a common goal for the national economy, namely the balance between stability and growth. From the understanding of the intended targets, optimality of the policy mix according to each authority can be formulated, both in terms of the complementarity of policy instruments and the effectiveness of their transmission in achieving the targets. Thus, inter-authority policy synergy fulfills 3 (three) conditions of the "Pareto optimum", namely optimization of target, policy instruments, and effectiveness of transmission. Indeed, the threat of an economic crisis, such as when facing global turmoil and the Covid-19 pandemic, makes it easier to achieve optimal policy synergy between authorities. In addition, the professionalism of authority leaders and institutional arrangements can strengthen the realization of the policy synergy, in the spirit of interdependence and simultaneity of policies in the framework of recognition and appreciation for the independence of their respective authorities.

The close synergy between the Government's fiscal policy and Bank Indonesia's monetary policy serves as a strong pillar of resilience and revival of the national economy from the impacts of global turmoil. In the May-August 2018 period, when Bank Indonesia had to save Indonesia from the threat of an exchange rate crisis through a large-scale intervention in the foreign exchange market and an increase in interest rates, fiscal policy was also directed at controlling domestic demand by reducing the fiscal deficit to strengthen macroeconomic stability while continuing to increase the allocation of the capital expenditure budget for infrastructure development to support economic growth. In fact, the Government continued to issue global bonds to prevent a drastic decline in foreign exchange reserves in order to support exchange rate stabilization by Bank Indonesia. On the other hand, at the beginning of the Covid-19 pandemic, around April-June 2020 when there was an outflow of foreign investors from holding large amounts of goverment securities (SBN) which caused high yields increases and pressure to weaken the Rupiah exchange rate, Bank Indonesia strengthened its intervention by selling foreign exchange reserves in spot, on a forward basis (Domestic Non-Deliverable Forward, DNDF), and simultaneously buying SBN sold by foreign investors from the secondary market. The foreign exchange market operation, called triple intervention (spot, DNDF, and buy SBN from the secondary market), was able to stabilize the Rupiah exchange rate and increase SBN yields. At the same time, the liquidity contraction resulting from the sale of foreign exchange was neutralized by expanding liquidity from the purchase of SBN on the secondary market, thereby avoiding tight liquidity in the money market and banking sector. As result, not only was a monetary crisis prevented, but it also avoided an increase in fiscal burden due to the rise in SBN yields, as well as risks of banking failure and financial system stability.

The fiscal-monetary policy synergy was strengthened during the Covid-19 pandemic to save Indonesia from the risk of a multidimensional crisis. Based on the Enactment of Government Regulation in Lieu of Law (Perppu) No. 1 2020 which was later ratified into Law No. 2 2020, the fiscal deficit is allowed to exceed 3% of GDP and Bank Indonesia is also allowed to purchase SBN directly from the primary market for fiscal financing (Figure 1). The close coordination of fiscal-monetary policy during the Covid-19 pandemic emergency situation was carried out through 3 (three) types of Joint Agreement mechanisms between the Finance Minister and the Governor of Bank Indonesia. First, the purchase of SBN by Bank Indonesia from the primary market as a stand-by buyer with a yield rate according to the market mechanism, when not all of the SBN auction targets for Government fiscal funding can be absorbed by the market. This mechanism is valid for a period of 3 (three) years 2020, 2021, and 2022. In this regards, as of 15 November 2022, Bank Indonesia has purchased SBN amounted of Rp266.11 trillion. Second, the purchase of SBN by Bank Indonesia in the primary market directly with a burden sharing mechanism to meet the increasing needs of the APBN for social protection programs (Rp397.6 trillion with a net burden of 0% for the Government) and national economic recovery (Rp117 trillion) with a net charge of 1% below the Bank Indonesia Reverse Repo interest rate for 3 (three) months for the Government, due to the worsening of the Covid-19 pandemic. This burden-sharing mechanism only applied to the 2020 APBN financing. Third, the purchase of SBN by Bank Indonesia in the primary

Figure 1. Coordination of Fiscal Policy and Monetary Policy during the Covid-19 Pandemic

LAW NO. 2 of 2022
- Fiscal Deficit of more than 3% of GDP until 2022 (Article 2)
- APBN financing by Bank Indonesia through the purchase of Goverment Bonds (SBN) in the primary market (Article 16)

JOINT DECREE BETWEEN THE MINISTER OF FINANCE AND THE GOVERNOR OF BANK INDONESIA - MECHANISM FOR SBN PURCHASES IN THE PRIMARY MARKET FOR APBN FINANCING

1. JOINT DECREE I (KB I) – APRIL 16, 2020
   - Bank Indonesia participates in the SBN auction in the primary market according to market interest rates, as a noncompetitive bidder (stage I of the auction), greenshoe option (stage II of the auction), or private placement (stage III of the auction).
   - For general purpose spending in APBN. Valid for three years according to Law No. 2 of 2020.
   - Total purchases of SBN by Bank Indonesia amounted to Rp75.9 trillion for the 2020 APBN, Rp143.3 trillion for the 2021 APBN, and Rp46.9 trillion (as of 15 November 2022) for the 2022 APBN.

2. JOINT DECREE II (KB II) – JULY 7, 2020
   - For social protection budget allocation and the national economic recovery program from the impact of the Covid-19 pandemic. Only applies to the 2020 APBN.
   - SBN purchases by Bank Indonesia in the primary market through private placement mechanism with a burden sharing mechanism.
   - A total of Rp397.6 trillion for the public goods budget (social protection) with SBN coupons equal to Bank Indonesia's three-month tenor reverse repo interest rate. All coupons are returned by Bank Indonesia to the Government so that the burden on the Government is 0%.
   - A total of Rp117 trillion for the nonpublic goods budget (subsidies for MSMEs and corporations) with SBN coupons equal to Bank Indonesia's three-month tenor reverse repo interest rate. Part of the coupons were returned by Bank Indonesia to the Government so that the burden was very low.

3. JOINT DECREE III (KB III) – AUGUST 23, 2021
   - For the health and humanitarian budget allocation to overcome the impact of the Covid-19 pandemic.
   - SBN purchases by Bank Indonesia of SBN by Bank Indonesia in the primary market through private placement mechanism amounted Rp215 trillion for the 2021 APBN and Rp224 trillion for the 2022 APBN.
   - Bank Indonesia three-month tenor reverse repo interest rate for the SBN coupon, much lower than market interest. Coupons for SBN of Rp58 trillion in 2021 and Rp40 trillion in 2022 are returned by Bank Indonesia to the Government so that the burden on the Government is 0%.

Source: Bank Indonesia

market directly with a coupon at the Reverse Repo Bank Indonesia interest rate for 3 (three) months to finance the enormous health and humanitarian funding needs in the 2021 APBN (Rp215 trillion) and the 2022 APBN (Rp224 trillion) due to the outbreak of the Covid-19 delta variant. These health and humanitarian budget allocation needs include vaccination programs, hospital fees, medicines, medical devices and medical personnel. Once again, the close synergy between fiscal policy and monetary policy has saved Indonesia from a multidimensional crisis, namely the health crisis, social crisis, exchange rate and monetary crisis, fiscal crisis, financial system crisis, and economic crisis.

The resilience of the Indonesian economy is also the result of policy innovations taken by the Government and Bank Indonesia. The challenges we face, both because of the Covid-19 pandemic and the impact of global spillover, are complex and multidimensional. Conceptual understanding of theory and practice in dealing with crises is clearly needed. However, the global turmoil that continues to hit our economy also requires creativity, innovation, speed, and courage in the formulation and decision-making of policy mix responses from each institution as well as policy synergies with other institutions. That is our spirit and commitment at Bank Indonesia to continue to innovate with a policy mix in maintaining monetary stability to support the national economic recovery from the Covid-19 pandemic and the impact of global spillover.

i. First, we eased all instruments in the Bank Indonesia policy mix in 2020 and 2021 to support economic growth after the impact of the Covid-19 pandemic and avoid tight liquidity that could lead to a domestic monetary and financial system crisis. As the economy begins to recover in 2022 and to protect the domestic economy from global ramifications, we changed the monetary policy direction to maintain stability, while macroprudential policies, payment systems, financial market deepening, and economic inclusion continue to focus on economic growth.

ii. Second, monetary policy continue to rely on the main policy instrument of the BI7DRR interest rate. In this regard, we lowered the BI7DRR interest rate to the lowest level of 3.50% in line with low inflation and the need to encourage economic growth after the impact of the Covid-19 pandemic. However, we have strengthened our policy of intervention in the foreign exchange market in spot, DNDF, and through buying/selling of SBN from the secondary market, or what we called triple intervention, to maintain the stability of the Rupiah exchange rate from the impact of the global financial market turmoil. Moreover, we also adopted a quantitative easing (QE) policy through a large amount of liquidity injection to ensure the banking system is protected from a financial system crisis and to contribute to the national economic recovery.

iii. Third, we eased our macroprudential policy with a number of instruments, such as lowering the down payment policy to 0%, or increasing the loan-to-value ratio (LTV) to 100% for property and automotive loans, reducing the obligation for Macroprudential Liquidity Buffers (MPLB), Macroprudential Intermediation Ratio (MIR), providing incentives to banks for lending to 38 priority sectors, including MSMEs, to spur national economic recovery.

iv. Fourth, accelerating the digitalization of the payment system to strengthen the integration of the national economic-financial digital ecosystem through the use of QRIS (Quick Responses Code Indonesian Standard, the only QR standard for payments), the implementation of BI-FAST (a cheap, 24/7 real-time, retail payment infrastructure), and one language in payment services of the National Standard Open API Payments (SNAP). Regulatory reform of the national payment industry (bank and nonbank) is pursued through facilitating licensing according to its classification (systemic, critical, and general) as well as accelerating the integration, interconnection, and interoperability of payment infrastructure and money markets. Bank Indonesia in collaboration with the national payment industry have also accelerated the electronification of the distribution of Government social assistance programs, various modes of transportation, as well as regional government financial transactions.

v. Fifth, we continue to encourage economic-financial inclusion, both through the MSME development program, as well as the sharia economic and finance. The MSME development program is pursued through 3 (three) pillars, namely corporatization (including institutional strengthening and partner expansion), end-to-end capacity building (including through strengthening entrepreneurship and market expansion), and financing for expansion of financial access (including digitalization of payments). The MSME development program is focused on food clusters, especially to support controlling inflation, as well as handicraft clusters for export promotion according to the beauty and diversity of Indonesian culture. The sharia economic chain ecosystem development program is focused on halal food, modest fashion, and Muslim-friendly tourism. Digitalization of payments with QRIS and BI-FAST as well as financial literacy and consumer protection programs are encouraged to expand access for MSME financing and the sharia economic and finance. The MSME promotion program is carried out through a national event called the "*Karya Kreatif Indonesia* (KKI)" which held once a year, while for the sharia economic and finance is carried out through the Sharia Economic-Financial Festival (FESyar) event which held in three regions (Sumatra, Java, and Eastern Indonesia) and the Indonesia Sharia Economic Festival (ISEF) which is an international event.

We also pursue synergy and policy innovation in maintaining financial system stability in close coordination with the Financial System Stability Committee (KSSK). The Covid-19 pandemic has caused a scarring effect to the business sectors in the form of declining business conditions, balance sheets, and increasing debts that will take a long time to heal. If not addressed timely and properly, the deteriorating condition of corporations could en masse spread to the banking system with large amount of credit defaults that could undermine financial system stability. Coordinated policy responses from KSSK members are needed to address them from both demand and supply side. In this regard, Bank Indonesia's policy instruments are directed at reducing BI7DRR to the lowest level, injecting large amounts of liquidity (QE), stabilizing the exchange rate, as well as providing incentives for banks to channel into priority sectors for national economic recovery. The government provides fiscal incentives in the form of interest rate subsidies to MSMEs, corporate tax reductions, to the placement of funds in a number of banks to channel credit to priority sectors, especially MSMEs. The Financial Services Authority (OJK) provides relaxation of provisions in credit classification in the banking credit restructuring program to the business sectors so that there is no mass credit default. The Deposit Insurance Agency (LPS) ensures that public deposits are guaranteed in banks, thus supporting the financial system stability, as well as as lowering the guaranteed interest rate to support national economic recovery.

Global Economic Performance and Prospects: Deteriorating with High Risk of Recession, High Inflation, and High Uncertainty

Synergy and innovation in the policy mix need to be continuously improved to strengthen the resilience of the national economy from the impact of increasingly volatile global economic spillover in future. Geopolitical tensions are further exacerbating the fragmentation of global economy prospects. The continuation of the Russia-Ukraine war and the imposition of sanctions on Russia have resulted in limited supplies of energy and food prices which in turn led to a very significant increase in prices. Meanwhile, the continuing trade war between the

US and China and the restrictions on mobility due to Covid-19 in China have further exacerbated disruptions to global supply chains and Chinese tourist travel to various countries. The high level of political and economic fragmentation as well as worsening disruptions in global supply chains have caused and will further weaken global economic growth from the supply side. At the same time, very high energy and food prices have caused global inflation to soar and prompted central banks in developed countries, especially the Fed and the European Central Bank (ECB) as well as a number of Emerging Market Economy (EME) countries such as Brazil, Chile, and Mexico to aggressively increase policy rates. As a result, world economic growth has slowed and is at risk of recession in line with the decline in aggregate demand due to monetary tightening and the weakening purchasing power of public consumption due to high inflation. Meanwhile on global financial markets, the very aggressive increase in policy rates by the Fed has driven the US dollar exchange rate to be extremely strong and put downward pressure on various world currencies, including the Rupiah. The negative risk perception in global financial markets has worsened, prompting global portfolio investors to withdraw and convert their funds to liquid instruments (the "cash is the king" phenomenon), and further exacerbate the impact on global economic and financial spillover, both from trade and financial channels, on EME countries including Indonesia.

Continuing political and economic fragmentation as well as aggressive monetary policy tightening in developed countries have led to a slowdown in the world economy, accompanied by the increasing risk of recession. Global economic growth was revised down to 3.0% in 2022 and further slower to 2.6% in 2023 with a downward risk trend, before improving to 2.8% in 2024 (Table 2). All countries have experienced a slowdown in growth, though to varying degrees. The sharp downward correction mainly occurred in the US, Euro Area, and Latin America in 2023 which was accompanied by the increasing risk of recession. This is because in the three regions the contraction in growth occurred simultaneously, both from the supply side due to limited energy supply caused by the geopolitical tensions, and from the demand side due to aggressive monetary tightening and declining purchasing power of consumption due to high inflation. Meanwhile, growth correction was relatively smaller in countries where monetary policy tightening was relatively non-aggressive and/or had better domestic energy and food supplies. Japan and India, which in 2022 grew by 1.7% and 6.6%, will

Table 2. Global Economic Performance and Prospects (%)

	2020	2021	2022*	2023*	2024*
World	-3.0	6.0	3.0	2.6	2.8
Advanced Economies	-4.4	5.2	2.4	1.1	1.5
US	-3.4	5.7	1.9	1.0	1.1
Euro Area	-6.1	5.2	3.1	0.7	1.5
Japan	-4.6	1.7	1.7	1.5	1.2
Emerging Economies	-1.9	6.6	3.5	3.6	3.8
China	2.2	8.1	3.2	4.5	4.6
India	-6.6	8.3	6.6	6.0	6.2
ASEAN-5	-3.4	3.4	5.0	5.0	5.6
Latin America	-7.0	6.9	3.0	1.3	1.3

Source: WEO-IMF, Bank Indonesia

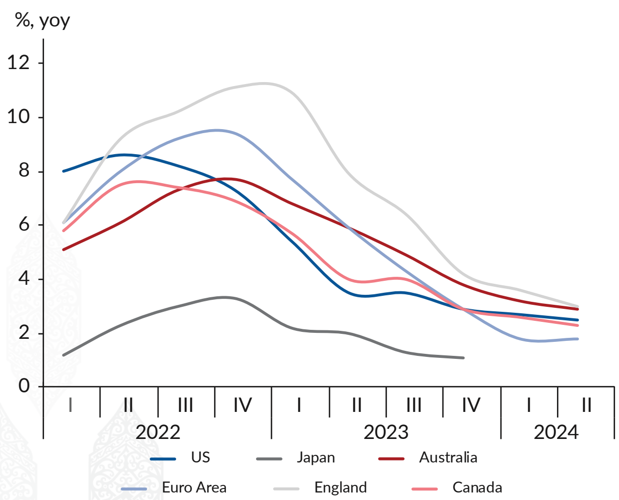
Note: *Bank Indonesia's projection

decline to 1.5% and 6.0% in 2023, which are then projected to grow by 1.2% and 6.2% respectively in 2024. China's growth is expected to improve from 3.2% in 2022 to 4.5% and 4.6% in 2023 and 2024 in line with the gradual easing on mobility restriction. The ASEAN-5 region is considered the most resilient from the impact of global spillover with a projected stable growth of 5.0% in 2022 and 2023 and then improving to 5.6% in 2024. Risk of slower than expected in the global growth and various countries could realized if the high level of political and economic fragmentation continues, and monetary policy tightening takes longer to reduce inflation in each country. Therefore, the risk of economic slowdown and high inflation (stagflation), and even recession and high inflation needs to be watched in the future, to strengthen the synergy and innovation of national economic policies in maintaining the resilience of the Indonesian economy that has been achieved so far.

Inflationary pressures will remain high going forward due to continued fragmentation of the world's politics and economy, although it will gradually ease as a result of the monetary policy tightening by the central bank. Global inflation is expected to rise from 6.4% in 2021 to 9.2% in 2022, and then begin to decline to 5.2% in 2023 and 3.8% in 2024. On a quarterly basis, global inflation is forecasted to peak at 10,0% in the third quarter of 2022 before declining to 5.2% in the fourth quarter of 2023. The highest increase in inflation is in developed countries, from 5.2% in 2021 to 7.2% in 2022 before declining to 3.2% in 2023 with a more aggressive response to monetary tightening and forecasts for a decline in energy and food prices (Graph 1.a). Inflation in the US and the Euro Area is expected to rise to the highest of 7.0% and 8.8% in 2022. For Emerging Market and Developing Economies (EMDEs), inflation is expected to rise from 7.3% in 2021 to 10.6% in 2022, before falling to 6.5 % in 2023 (Graph 1.b). The rise in inflation in 2022 differs from country to country, with lower increases in Asia than in Latin America. After that, starting in mid-2023, inflation will decrease in China, India, the ASEAN-5 region, and Latin America. Overall, the impact of political-economic fragmentation on inflation in EMDEs was not as high as in AEs, except in Latin America. The inflation forecast is based on the assumption that the Russia-Ukraine political tensions and the US-China trade war will not be prolonged, so that inflationary pressures from high world energy and food prices will ease at the end of 2023 before returning to a low and stable level in 2024 as predicted above.

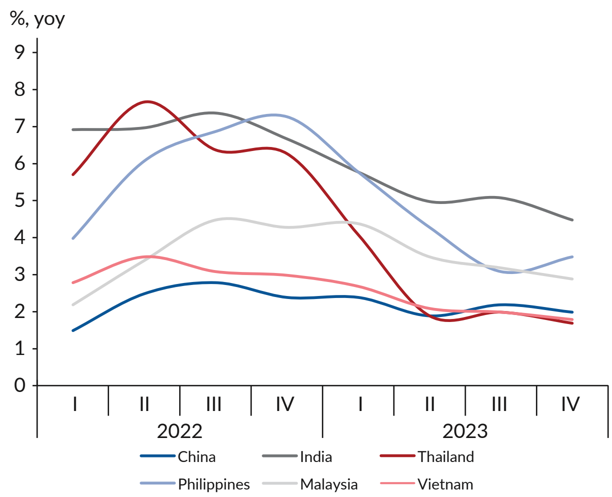
The high interest rate policy is predicted to be maintained for a longer period ("higher for longer")

Graph 1.a. Prospects of Inflation in Developed Countries



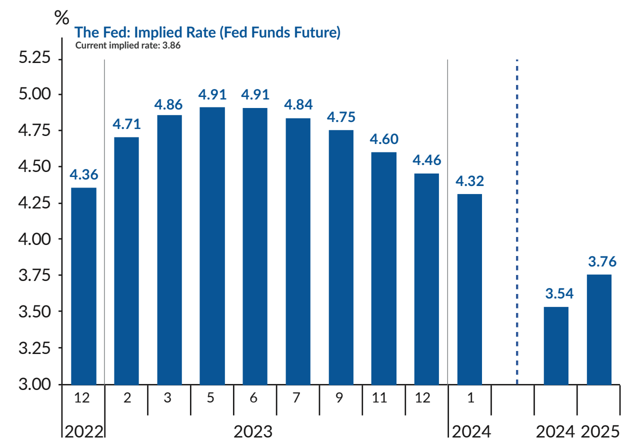
Source: Consensus Economics

Graph 1.b. Prospects of Inflation in EME Countries



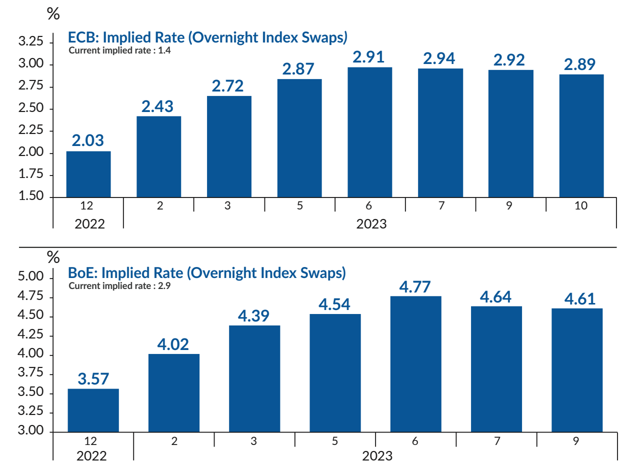
Source: Consensus Economics

Graph 2.a. Fed Funds Rate (FFR) Forecast



Data as of 15 November 2022
Source: Bloomberg

Graph 2.b. ECB and BoE Interest Rate Forecast



Data as of 14 November 2022 (ECB); 7 November 2022 (BoE)
Source: Bloomberg

to lower high inflation back to its long-term level. In the US, the Fed Funds Rate (FFR) which is currently at 3.75%-4.00% is predicted to rise to around 4.75%-5.00% in the first quarter of 2023 and will be maintained at this level throughout 2023 and slightly down to around 4.25%-4.50% in 2024 (Graph 2.a). The same trend also applies to the policy rates of the European Central Bank (ECB) and Bank of England (BoE), which are currently at 2.5% and 3.75% respectively, and are predicted to increase to 3.0% and 4.25% respectively, and maintained in 2023 and 2024 (Graph 2.b). The higher policy rate

Table 3. Forecast of Monetary Policy Interest Rates in Various Countries (%)

Group	Central Bank	2020	2021	2022				2023				2024			
				I	II	III	IV*	I*	II*	III*	IV*	I*	II*	III*	IV*
EM Europe	CBRT	17.00	14.00	14.00	14.00	12.00	9.00	9.00	11.50	16.13	17.25	17.25	17.25	17.25	19.00
	Russian Fed	4.25	8.50	20.00	9.50	7.50	7.50	7.28	7.00	7.00	7.00	6.00	5.75	5.75	5.75
EM Latin America	BCB	2.00	9.25	11.75	13.25	13.75	13.75	13.75	13.25	12.25	11.00	10.50	9.50	8.50	8.00
	Banxico	4.40	5.43	6.51	7.75	9.25	10.50	10.75	10.75	10.75	10.13	9.00	8.13	7.75	7.50
	BCCH (Chile)	0.50	4.00	7.00	9.00	10.75	11.25	11.25	10.75	9.50	6.75	5.50	5.00	5.00	5.00
EM Asia	RBI	4.00	4.00	4.00	4.90	5.90	6.25	6.40	6.40	6.40	6.25	6.25	6.25	6.25	6.25
	BSP	2.00	2.00	2.00	2.50	4.25	4.00	4.50	4.50	4.50	4.50	4.50	4.50	4.38	4.25
	BNM	1.75	1.75	1.75	2.25	2.50	2.75	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00
	BOK	0.50	1.00	1.25	1.75	2.50	3.25	3.50	3.50	3.50	3.50	3.25	3.00	2.88	2.50
	BOT	0.50	0.50	0.50	0.50	1.00	1.25	1.50	1.75	1.75	1.75	1.75	1.75	1.63	1.38
	PBOC	2.95	2.95	2.37	2.00	1.67	2.35	2.30	2.28	2.28	2.28	2.20	2.20	2.20	2.20
Advanced Economies	RBNZ	0.25	0.75	1.00	2.00	3.00	4.25	4.63	4.63	4.63	4.63	4.50	4.25	4.00	3.75
	FED	0.25	0.25	0.50	1.75	3.25	4.50	5.00	5.00	5.00	5.00	5.00	5.00	4.75	4.50
	BOE	0.10	0.25	0.75	1.25	2.25	3.75	4.25	4.25	4.25	4.25	4.00	3.88	3.75	3.50
	RBA	0.10	0.10	0.10	0.85	2.35	3.10	3.35	3.35	3.35	3.35	3.35	3.10	2.73	2.48
	BOJ	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	ECB	0	0	0	0	1.25	2.50	3.00	3.00	3.00	3.00	3.00	3.00	3.00	3.00

Source: Bloomberg

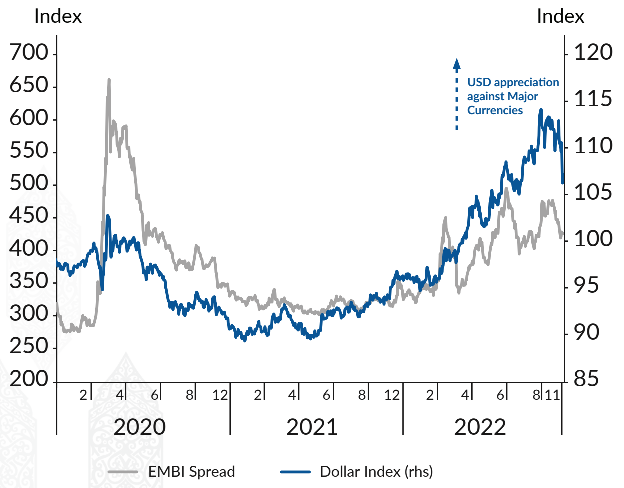
Note: *Projection

is also predicted to continue in Latin America, such as in Brazil which will be remain high at 13.75% until the first quarter of 2023, and Mexico which is currently at 9.25% will become at 10.75% in the first quarter 2023. Policy rate at both central banks will remain high throughout 2023, before declining to 8.00% and 7.50% respectively at the end of 2024 (Table 3). Meanwhile, the increase in monetary policy rates in the EMs Asia Region was relatively lower. Monetary policy rates in India and South Korea, for example, will increase to 6.40% and 3.50% respectively in the first quarter of 2023 and be maintained throughout 2023. The phenomenon of higher and longer monetary policy rates in developed countries compared to EME countries shows that fragmentation due to geopolitical tensions has caused not only economic fragmentation (growth and inflation) but also global monetary fragmentation.

The aggressiveness of the increase in the FFR interest rate led to a very strong US dollar against various world currencies and an increase in high US Treasury (UST) yields. The US dollar index against world currencies (DXY) reached 114.1 on 27 September 2022, or strengthened around 19.3% (ytd) from the end of 2021 and 22.2% on year-on-year basis (Graph 3.a). This phenomenon of the very strong US dollar has put pressures on the depreciation of currencies in various countries, and requires central banks, especially in Asian EMEs to intervene the foreign exchange market to stabilize exchange rates. Looking ahead, the US dollar is predicted to continue to strengthen in line with the hike in the FFR, and therefore it is necessary to continue to be vigilant and strengthen the policy response to mitigate the spillover impact on stability and to the domestic economy. Vigilance also needs to be increased over the increase in UST yields which are predicted to reach around 4.25% in the first quarter of 2023 for a 10-year tenor. The increase in UST yields is even higher for short-term tenor, which is around 4.6% after almost reaching 7% in August 2022 (Graph 3.b). The phenomenon of inverted UST yields reflects investors' perceptions on global financial markets and influences the pattern of portfolio capital flows, especially in bonds, exchange rate movements, and the increasingly expensive financing of fiscal deficits in various countries.

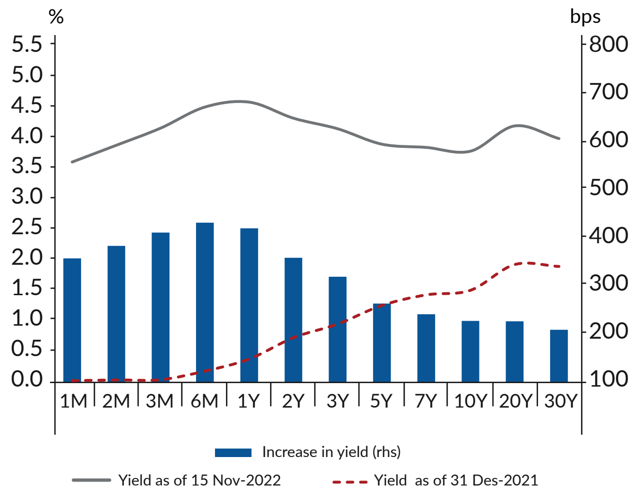
The high perception of risk in global financial markets encourages investors to withdraw their portfolio investments from EMEs and accumulate them in liquid assets (the "cash is the king" phenomenon). Financial risk in the US, Europe, and China is on the rise in term of interest rates, exchange rates, financial asset valuations, and credit spreads. The rise is due to continuing global geopolitical tensions, increasing risk of economic recession, high inflation, aggressive interest rate

Graph 3.a. Strong US Dollar Phenomenon



Data as of 14 November 2022
Source: Bloomberg

Graph 3.b. US Treasury Yield Development

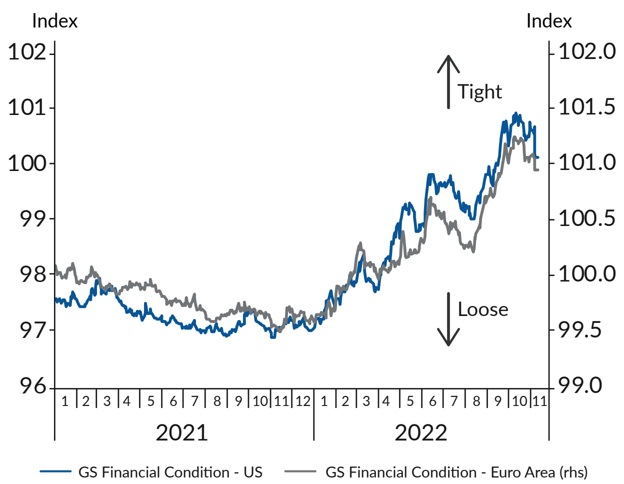


Source: Bloomberg

hikes, and the strong US dollar (Graph 4.a). In such conditions, the risk premium is more decisive in portfolio investment decisions than the difference in interest rates between countries. Moreover, the lack of clarity over the solution to global geopolitical tensions has further encouraged global investors to be extra risk averse in holding securities and shifting them to liquid assets. This has resulted in continued capital outflows of bond investment portfolios from EMEs since early 2022 as global geopolitical tensions intensify (Graph 4.b). This development has put further pressure on the exchange rates and the ability to issue bonds to finance fiscal deficits in various EME countries. The amount of capital outflow will of course differ from one country to another, depending on the condition of the domestic economy and the credibility of the policy response adopted.

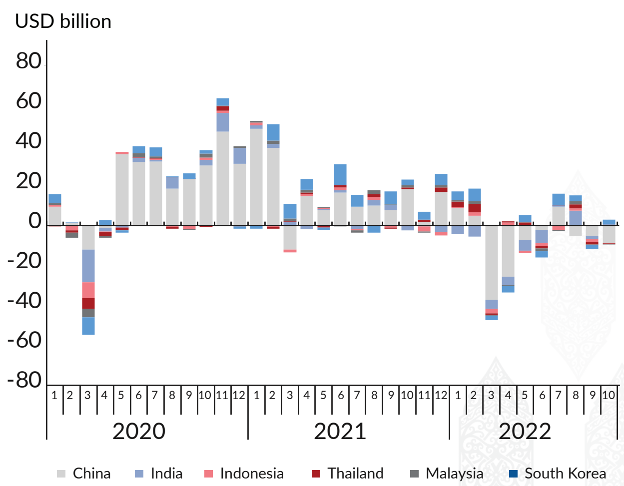
Indonesia expresses and mobilizes the need to strengthen international coordination and cooperation to overcome various problems and prevent the deterioration of the global economy, especially through the Indonesia's Presidency of the G20 2022 on the finance track according to the theme "*Recover Together, Recover Stronger*". As is known, there are 6 priority agenda of finance track for the Indonesia's Presidency of the G20 2022, namely: (i) coordination in the normalization of global macroeconomic policies; (ii) coordination in the regulation and supervision of the financial system to overcome the Covid-19 pandemic's scarring effect; (iii) strengthening cooperation in payment systems between countries and developing Central Bank Digital Currency (CBDC); (iv) policy development in the transition to green and sustainable finance; (v) expanding the development of economic and financial inclusion, in particular to MSMEs, women, and youth; and (vi) advanced policies in international taxation. After extra hard diplomatic efforts, both formally and through holding side events to promote economic progress and cultural diversity in Indonesia, at the fourth meeting of the Finance Minister and Central Bank Governors Meeting (FMCGM) in Washington, DC, USA on 12 to 13 October 2022, an agreement was reached on the various priority agendas of the financial channel. A total of 13 (thirteen) out of 15 (fifteen) paragraphs in the fourth Chair Summary of the FMCGM have been agreed. Meanwhile, the 2 (two) paragraphs regarding the deteriorating condition of the global economy as well as global health and food issues, the disagreement is mainly due to the underlying factors related to political tensions in relation to the war in Ukraine. A total of 11 (eleven) G20 countries, especially the G7 countries, alleged that this was caused by the Russian invasion of Ukraine, on the other hand Russia said it was the imposition of sanctions, while 3 (three) countries stated that it was because of the invasion and the imposition of sanctions.

Graph 4.a. Global Financial Condition Index



Data as of 14 November 2022
Source: Bloomberg

Graph 4.b. Bond Portfolio Flows to EMEs



Source: IIF (calculated)

As a shared ambition to "Recover Together, Recover Stronger", the G20 countries reaffirmed their commitment to take "well-calibrated, well-planned, and well-communicated" policies to support sustainable economic recovery. To that end, various steps have been taken to strengthen macroeconomic policy coordination and maintain financial system stability and long-term fiscal sustainability. Responsive and flexible fiscal policies continue to be pursued, including the provision of targeted budgets to help maintaining the purchasing power of the most vulnerable groups of people and to mitigate the impact of rising commodity prices, including energy and food prices, on inflationary pressures. The G20 central banks are strongly committed to achieving price stability, by tightening monetary policy in accordance with data developments and communicating clearly to ensure inflation expectations remain anchored, as well as considering the process of economic recovery and the impact of spillover between countries. Exchange rate stability needs to be maintained according to market mechanisms as part of controlling inflation. The independence of the central bank is very important and decisive to achieve these goals and strengthen the credibility of monetary policy. Macroprudential policy continues to be directed at monitoring and mitigating systemic risks in the financial system from current economic dynamics. To strengthen these macroeconomic (fiscal and monetary) policies, the G20 asked the IMF to continue to refine and strengthen the implementation of the Integrated Policy Framework (IPF) in surveillance and policy recommendations that need to be taken by each country and multilaterally. Coordination of macroeconomic and macroprudential policies also needs to be strengthened through the integration of the IPF by the IMF with the Macro-Financial Stability Policy Framework (MFSF) developed by BIS. It should be noted that Indonesia's experience of very close coordination between the Government's fiscal policy and Bank Indonesia's monetary policy, as well as policy coordination in preventing and handling crises through the KSSK, is widely praised as an important pillar in maintaining Indonesia's economic resilience and recovery from the effects of global economic and financial turmoil.

In the field of financial sector reform, the G20 countries are committed to continue maintaining the stability of the global financial system, including by coordinating policy measures and implementing international standards. To that end, the G20 asked the Financial Stability Board (FSB) and the IMF to continue to monitor the condition of the global financial sector and recommend policy responses that need to be taken. The final report from the FSB on the exit strategy in dealing with the scarring effects of the Covid-19 pandemic and policy recommendations for financial system stability will be finalized before the G20 Leaders' Summit in Bali, November 2022. In particular, G20 countries support joint global action coordinated by the FSB to strengthen the resilience of the financial system from cross-border spillovers, including by addressing the structural vulnerabilities of nonbank financial intermediation from a systemic risk perspective. The FSB will soon complete a follow-up report and recommendations for strengthening the regulation and supervision of nonbank financial institutions, including in the activities of open-ended funds and the regulation of margining practices. The G20 countries also support the FSB's proposal to strengthen the regulatory framework and supervision of a comprehensive and international standard for cryptoasset activities by applying the principle of "same activity, same risk, same regulation". This is because cryptoasset activities and ecosystems have developed rapidly and pose systemic risks to international and global financial systems. In addition, the G20 countries also support the FSB consultative report on recommendations for regulation and supervision of the "global stablecoin" mechanism by encouraging consistent implementation and public awareness of the risks it poses, while continuing to foster digital innovation.

Very encouraging progress in Indonesia's G20 Presidency in 2022 was achieved in accelerating cross-border payment system cooperation and CBDC development. In this regard, the G20

Roadmap for Enhancing Cross-Border Payments initiated by Saudi Arabia in 2020 has began to be implemented with 18 (eighteen) blocks of clear programs, their prioritization, and concrete achievement indicator targets, as stated in the 2022 Progress Report. The goal is to reduce the cost of transfers and remittances between countries to be as low as possible, including through digitalization, infrastructure development, and expansion of cross-border payment system coordination. Reports on progress in payment system interoperability, including through the use of Application Programming Interfaces (APIs), were submitted by the BIS Committee on Payments Systems and Market Infrastructures (CPMI) in collaboration with the BIS Innovation Hub (BISIH) in side events of the G20 Indonesia Digital Economy and Finance Festival (FEKDI) in Bali, July 2022. Indonesia leads the ASEAN-5 (Indonesia, Thailand, Malaysia, Singapore, and the Philippines) in payment system cooperation for the use of Quick Response (QRIS in Indonesia) and retail fast payments (BI-FAST in Indonesia) with using Local Currency Transactions. Meanwhile, important progress in Indonesia's Presidency of the G20 was achieved in the development of CBDCs with a focus on 3 (three) important aspects, namely: CBDC design (wholesale and/or retail CBDC), the use of CBDCs in financial inclusion (directly or through digitalization of payments system), and CBDC cooperation between countries (regional Asia and multilateral through the BIS and also the IMF). To realize these three focuses, Indonesia in collaboration with BISIH successfully held the G20 TechSprint 2022 as an annual competition for practical and feasible solutions for CBDC development on three issues, namely: (i) robust and effective publishing, distribution, and transmission; (ii) capacity for financial inclusion; and (iii) connectivity and interoperability. Competition enthusiasm was very high with almost 100 (one hundred) participants from all over the world where the jury selected 21 (twenty one) participants as finalists and then determined 3 (three) winners for each of the aspects of the above CBDC development. Moreover, Indonesia's Presidency of the 2022 G20 strengthens coordination of BIS CPMI, BISIH, IMF, and the World Bank in the preparation of integrated assessment reports and recommendations for options in CBDC access and interoperability for cross-border payment systems, while maintaining the stability and integrity of the international monetary and financial system. In addition, the FSB has also issued a consultative report to achieve greater convergence in reporting and handling cyber incidents.

Indonesia's Presidency in the G20 2022 has also succeeded in encouraging the economic and financial inclusion development program by displaying the progress of Indonesia's MSMEs development. The Covid-19 pandemic has had an impact on increasing inequality among the poorest and most vulnerable groups of society, especially for MSMEs, women and youth. To that end, the G20 agreed on the "G20 Financial Inclusion Framework in Harnessing Digitalization to Increase Productivity, Sustainable, and Inclusive Economy of Women, Youth, MSMEs" which aims to increase productivity and develop an inclusive and sustainable economy, based on the G20 2020 Financial Inclusion Action Plan. The framework is built on policy practices, regulations, and development programs in a number of EME countries in accordance with the Implementation Guide for the G20 High-Level Principles for Digital Financial Inclusion, as a reference in the use of financial products and services and digital payments in expanding access to MSME finance in addition to bank credit/financing. To strengthen the development of digital and sustainable finance, as well as to support financial inclusion and the welfare of small communities, the G20 agreed to update the G20/OECD High-Level Principles on Financial Consumer Protection and on MSME Financing. In this regard, the progress of policy practice, regulation, and development of MSME in Indonesia is included as a reference in the preparation of the framework, in addition to a number of countries such as India and Mexico. Likewise, various side events and exhibitions of Indonesian MSME products at every G20 FMCBG meeting were visited and praised by delegates from G20 countries.

Indonesia's Presidency of the G20 2022 also reached an agreement on international tax cooperation, infrastructure development, assistance to poor countries, as well as promoting further steps in a green and sustainable economic transition. In the field of international tax cooperation, the G20 agreed on the rapid implementation of the two pillars of the OECD/G20 international taxation package, with the finalization of the OECD/G20 Inclusive Framework on Base Erosion and Profit Shifting (BEPS) in the first pillar and progress in Global Anti-Base Erosion (GloBE) Model Rules in the second pillar. In addition, the G20 is also committed to continue strengthening the implementation of tax transparency globally and regionally in Asia in accordance with the Asia Initiative Bali Declaration agreement in July 2022, as well as the reporting framework for the application of taxation on cryptoasset. In the field of infrastructure development, the G20 focuses on efforts to expand private participation, capacity building, and financing cooperation among the Multilateral Development Banks (World Bank, ADB, IsDB, AIB, and others), as well as the development of InfraTracker 2.0 that allows the public and private sectors to play a role in the post-Covid-19 transformation on infrastructure investment. To help low and middle-income countries recover from the impact of the Covid-19 pandemic and global turmoil, the G20 agreed to establish a Pandemic Prevention, Preparedness, and Response Financial Intermediary Fund (PPR FIF) facility with funding commitments from donors of more than USD1.4 billion, a restructuring program external debt of debtor countries in Africa through the Common Framework (CF), as well as commitments from IMF member countries to channel part of the Special Drawing Rights (SDRs) allocation of USD81.6 billion (from the target of USD100 billion) into the fund. Resilience and Sustainability Trust (RST) fund to assist the eligible low and middle-income countries in addressing structural problems that exacerbate macroeconomic risks from pandemics and climate change. In the transition to a green economy and sustainable finance, the G20 agreed on global efforts to achieve the goals of the United Nations Framework Convention on Climate Change (UNFCCC) and the Paris Agreement, including the implementation of the COP26 commitment, through a policy mix towards carbon neutrality and net zero carbon which includes fiscal policies, market mechanisms, and the necessary arrangements. In accordance with the conditions of each country, a number of these steps include the use of carbon pricing, carbon non-pricing mechanisms and incentives, and gradually reducing inefficient energy subsidies in the medium term that have an impact on excessive consumption, while continuing to provide assistance to the poor and vulnerable.

National Economic Performance and Prospects: Optimistic and Vigilance

Synergy and innovation in the macroeconomic-financial system stability policy mix are needed to enhance further to strengthen resilience and national economic recovery from the impacts of the global turmoil. Close coordination between the Government's fiscal policy and Bank Indonesia's policies are increasingly needed to ensure that the inflation can return to the target expeditiously, the Rupiah exchange rate is stable, the fiscal deficit is manageable, and monetary stability is maintained. Fiscal policy must continue to be directed as a shock absorber against the impact of soaring global energy and food prices on domestic inflation by providing subsidies and social assistance programs, while simultaneously lowering the deficit to below 3% of GDP, as stipulated in the 2023 State Budget (APBN). Monetary policy still needs to be directed towards stability (pro-stability) with a measurable increase in interest rates to control core inflation and inflation expectations, as well as foreign exchange intervention to maintain Rupiah exchange rate stability, and to ensure adequate banking and economic liquidity. Meanwhile, macroprudential policy, payment system policy, financial market deepening, as well as economic and financial inclusion are directed towards promoting national economic recovery (pro-growth). Microprudential regulation and supervision by OJK needs to be directed at continuing the credit restructuring program and strengthening the supervision of the financial sector (banks, nonbank financial institutions, and capital markets) to resolve the impact of the Covid-19 pandemic on the corporate and banking sector, in particular the possibility of increasing Loan at Risk (LaR) and Non Performing Loan (NPL).

In the midst of the global economic slowdown, Indonesia's economic recovery remains intact, with an expected of slight moderation in 2023. The national economy is predicted to continue improving, supported by increasing private consumption and investment, strong exports, and maintained households purchasing power notwithstanding the rising inflation. Several indicators and results from the latest surveys conducted by Bank Indonesia, such as consumer confidence, retail sales, and the Manufacturing Purchasing Managers' Index (PMI) point to an ongoing domestic economic recovery. Externally, export performance is predicted to remain strong, particularly for coal, CPO, as well as iron and steel, in line with strong demand from several major trading partners and the Government policy to stimulate exports of CPO and its derivatives. Spatially, positive export performance was supported by all regions, especially Kalimantan and Sumatra, which continued to score a high growth. Improvements in the national economy are also reflected in the performance of the main economic sectors, such as trade, mining, and agriculture. As a result, economic growth in 2022 is predicted have an upward bias towards the upper bound of Bank Indonesia's 4.5-5.3% projection. Economic growth in 2023 is predicted to remain strong, though growth will decelerate slightly to the midpoint of the 4.5-5.3% range before increasing to 4.7-5.5% in 2024 (Table 4). Indonesia's ongoing economic recovery is driven by solid domestic demand, both private consumption and investment, in line with the continued increase in mobility and economic-financial activity, positive export performance supported by higher value added from downstream natural resource-based industries, as well as the ongoing completion of the National Strategic Projects (PSN).

Spatially, ongoing economic recovery in 2022 is supported by increased growth in all regions of Indonesia. The economy in all regions of Indonesia in the third quarter of 2022 continued to score strong growth, confirming the continued national economic recovery. This positive development was supported by improving domestic demand in line with greater mobility in all regions and various large-scale events, including activities related to the Indonesia's Presidency of the G20 2022, as well as exports performance. Growth in the regions of Bali-Nusa Tenggara (Balinusra), Java, and Kalimantan accelerated in the third quarter of 2022 to 6.69% (yoy), 5.76% (yoy) and 5.67% (yoy) respectively. Economic gains in those three regions were mainly supported by domestic demand in line

Table 4. Indonesia's Economic Growth: 2022-2024 (%,yoy)

	2021**	2022***			2022†	2023†	2024†
		I	II	III			
Economic Growth	3.69	5.02	5.45	5.72	4.5-5.3	4.5-5.3	4.7-5.5
- Private Consumption	2.01	4.37	5.49	5.41	4.4-5.2	4.6-5.4	4.7-5.5
- Goverment Consumption	4.17	-6.94	-4.86	-2.88	-5.1- -4.3	3.2-4.0	3.0-3.8
- Investment	3.80	4.09	3.07	4.96	3.8-4.6	6.8-7.6	6.9-7.7
- Exports	24.04	16.70	20.02	21.64	14.9-15.7	6.0-6.8	6.0-6.8
- Imports	23.31	15.88	12.37	22.98	12.3-13.1	6.6-7.4	6.5-7.3

Source: BPS, Bank Indonesia

Note: ** very temporary figure; *** very very temporary figure; †Bank Indonesia's projection with increased mobility, including tourism-related activities. In addition, economic growth in Balinusra was also supported by copper exports from West Nusa Tenggara. Likewise, export performance in Kalimantan remains strong, especially CPO and coal. Meanwhile, the Sulawesi-Maluku-Papua (Sulampua) and Sumatra regions posted strong growth of 8.04% (yoy) and 4.71% (yoy) respectively, despite slightly moderating from the previous quarter, supported by solid domestic demand and natural resource-based exports. For 2022 overall, therefore, the regional economies of Sumatra, Java, Kalimantan, Balinusra and Sulampua are predicted to grow in the range of 4.2 - 5.0%, 5.0 -5.8%, 3.8 - 4.6%, 4.5 - 5.3%, and 6.9 - 7.7% respectively.

Indonesia's Balance of Payments (BOP) performance remains solid in line with strong export performance, thereby supporting external resilience. The current account is forecasted to maintain a surplus, potentially reaching 0.4-1.2% of GDP in 2022, supported by strong export performance in line with high commodity prices and persistent demand for Indonesian commodities (Table 5). Export performance in 2023 is expected to be moderated, in line with the global economic slowdown, while imports will increase with improvement in domestic demand. Accordingly, the current account surplus will decrease to within the range of 0.4 - -0.4% of GDP. Against the backdrop of intense pressures from foreign portfolio investment outflows in line with

Table 5. Indonesia's Balance of Payments (USD Billion)

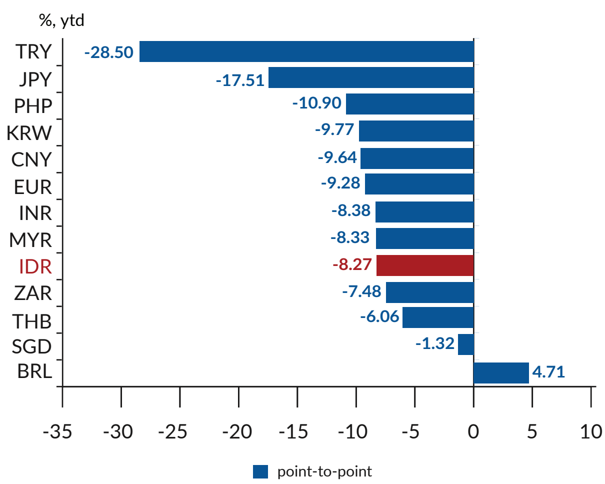
Component	2020	2021					2022		
		I	II	III	IV	TOTAL	I*	II**	III**
Current Account	**-4.43**	**-1.09**	**-1.93**	**4.95**	**1.52**	**3.46**	**0.57**	**4.02**	**4.38**
A. Goods	28.30	7.63	8.34	15.41	12.43	43.81	11.30	16.80	17.51
- Exports, fob	163.40	49.38	54.32	61.65	67.49	232.84	66.77	75.17	77.84
- Imports, fob	-135.10	-41.75	-45.98	-46.24	-55.05	-189.03	-55.47	-58.38	-60.32
a. NonOil & Gas	29.95	9.98	11.58	18.12	18.13	57.80	17.21	24.44	25.16
b. Oil & Gas	-5.39	-2.27	-3.14	-2.51	-5.04	-12.97	-5.69	-7.19	-6.59
B. Services	-9.76	-3.39	-3.71	-3.60	-3.96	-14.64	-4.38	-4.94	-5.27
C. Primary Income	-28.91	-6.75	-8.02	-8.27	-8.91	-31.96	-7.85	-9.35	-9.27
D. Secondary Income	5.93	1.43	1.46	1.42	1.95	6.26	1.49	1.52	1.41
Capital and Financial Account	**7.92**	**5.77**	**1.66**	**6.90**	**-2.10**	**12.42**	**-1.99**	**-1.16**	**-6.07**
1. Direct Investment	14.14	4.49	5.40	3.38	3.84	17.42	4.19	3.40	2.78
2. Portfolio Investment	3.37	4.90	3.99	1.20	-5.02	5.07	-3.19	-0.35	-3.11
3. Other Investment	-9.64	-3.73	-7.76	2.14	-1.01	-10.41	-3.13	-4.13	-5.75
Overall Balance	**2.60**	**4.06**	**-0.45**	**10.69**	**-0.84**	**13.46**	**-1.82**	**2.39**	**-1.30**
Memorandum:									
- Reserve Assets Position	**135.90**	**137.10**	**137.09**	**146.87**	**144.91**	**144.91**	**139.13**	**136.38**	**130.78**
In Months of Imports & Official Debt Repayment	9.76	9.66	8.77	8.64	7.76	7.76	6.97	6.41	5.72
- Current Account (% GDP)	-0.42	-0.39	-0.66	1.65	0.48	0.29	0.18	1.19	1.28

Source: Bank Indonesia

Note: * temporary figure, ** very temporary figure high global financial market uncertainty, the capital and financial account balances will be supported by investment in the form of Foreign Direct Investment (FDI), leading to a relatively narrow BOP deficit in 2022. Looking forward, the 2023 BOP is predicted to remain sound, supported by a capital and financial account surplus stemming from higher FDI and returned portfolio investment inflows, amidst the well-maintained current account. Meanwhile, the position of foreign exchange reserves, which at the end of October 2022 stood at USD130.2 billion, will increase and be more than sufficient to support Indonesia's external resilience.

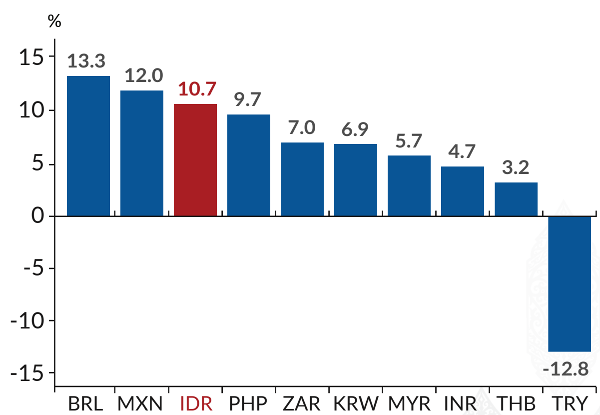
The Rupiah stability has been maintained amidst the strong US dollar and elevated global financial market uncertainty. As noted above, the aggressive pace of FFR hikes, the strong US dollar, and the perceived of high risk by global investors ("cash is the king") have led to portfolio investment outflows and depreciatory pressures on exchange rates in EMEs, including Indonesia. To mitigate the impact of this global turmoil, Bank Indonesia strengthened Rupiah stabilization policy through large foreign exchange market intervention, both on spot and Domestic Non-Deliverable Forward (DNDF) transactions, in addition to buying/selling SBN in the secondary market to maintain the SBN yields attractiveness to foreign portfolio investors. Rupiah stabilization measures are critical to prevent a crisis in Indonesia from the impact of global turmoil, particularly on increasing import prices (imported inflation) thereby supporting inflation control efforts, as well as to maintain monetary-financial system stability and macroeconomic stability. The US dollar exchange rate index against major currencies (DXY) reached a high of 114.11 on 27 September 2022 and was recorded at 106.40 on 15 November 2022 or increased by 11.22% (ytd) during 2022. As of 15 November 2022, Rupiah exchange rate depreciated 8.27% (ytd) compared to the level at the end of 2021, which is comparatively lower than the currency depreciation experienced in other developing countries, such as India 8.38% and the Philippines 10.90% (Graph 5.a). Moving forward, Bank Indonesia will continue to strengthen the Rupiah exchange rate stabilization policy in accordance with market mechanisms and the fundamental value. With forecasted global financial market uncertainty easing, at least after the period of peak FFR hikes in the first quarter of 2023, the Rupiah exchange rate is predicted to stabilize and appreciate in line with its fundamental value. This is consistent with forecasts of a surplus of BOP performance, controlled inflation returning to the 3±1% target, well-maintained fiscal deficit below 3% of GDP, and continued economic recovery, in addition to yields on Indonesian government securities remain attractive compared to other EMEs (Graphic 5.b).

Graph 5.a. Currency Movement Against USD



Data as of 15 November 2022
Source: Reuters, Bloomberg

Graph 5.b. Risk Adjusted Return (RAR)

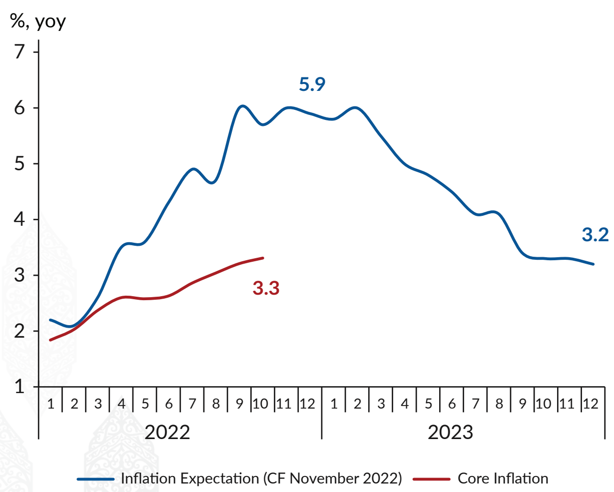


Source: Bloomberg (calculated)

Inflation is lower than the initial projection and is expected to return to the target in 2023. Consumer Price Index (CPI) inflation in October 2022 was recorded at 5.71% (yoy), down from 5.95% (yoy) in the previous month, driven by a lower than expected second-round effect of fuel price adjustments to volatile food (VF) inflation and administered prices (AP). Volatile food inflation was controlled as a result of synergy and close policy coordination through the Central and Regional Inflation Control Teams (TPIP-TPID) and the National Movement for Food Inflation Control (GNPIP) to support supply availability, smooth distribution, price stability, and effective communication. The build-up of inflationary pressures on administered prices was also not as high as expected, in line with lower adjustment in fuel prices and transportation fares. Meanwhile, core inflation was maintained at a low level in line with lower than expected second-round effect of fuel price adjustments and a lack of strong inflationary pressures from the demand side. Consequently, Bank Indonesia expects lower inflation in 2022 than the initial forecast, though still above the 3.0±1% target. Inflation in 2023 is predicted to decline and return to the aforementioned target corridor in 2023. Core inflation is predicted to return to target more quickly as imported inflation remains under control in line with the stable Rupiah exchange rate, as well as a front loaded, pre-emptive, and forward looking monetary policy response to control inflation expectations and core inflation going forward (Graph 6.a). The increase in volatile food inflation will also be negated by declining global commodity prices, more conducive weather in 2023, and close coordination to stabilize food prices between the Central/Regional Government and Bank Indonesia through TPIP-TPID and GNPIP (Graph 6.b). Likewise, administered prices inflation will also be low with minimal potential adjustments to energy prices due to the decline in the price of fuel. Policy synergy between the Central and Regional Governments and Bank Indonesia will continue to be strengthened to ensure that inflation returns to the target soon.

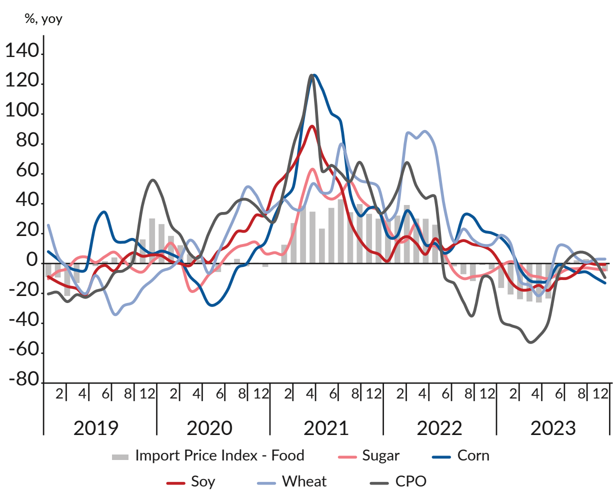
Liquidity conditions in the banking sector and the economy remain loose, thereby supporting intermediation and the APBN financing. As part of the policy response for economic recovery from the Covid-19 pandemic, Bank Indonesia in 2020 and 2021 injected large amounts of quantitative easing to the banking industry to maintain financial system stability and simultaneously to revive bank lending/financing to the business sectors. By the end of 2021, the quantitative easing policy reached Rp874.4 trillion or around 5.2% of GDP, one of the largest liquidity injections among developing countries. With the economy starting to recover, Bank Indonesia in 2022 is normalizing monetary

Graph 6.a. Core Inflation and Inflation Expectation



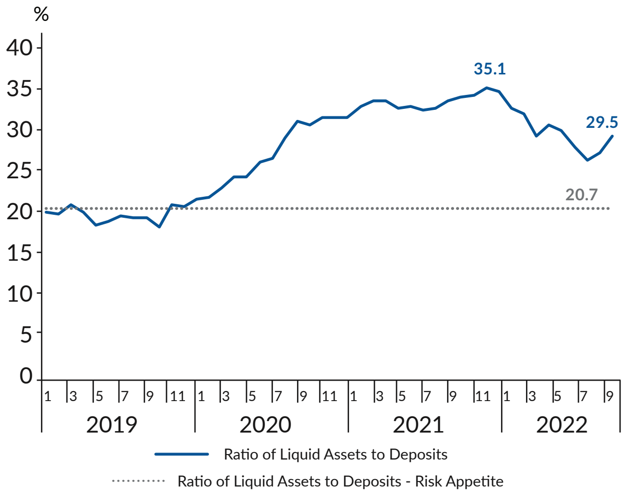
Source: BPS, Consensus Economics

Graph 6.b. Global Commodity Prices Forecast



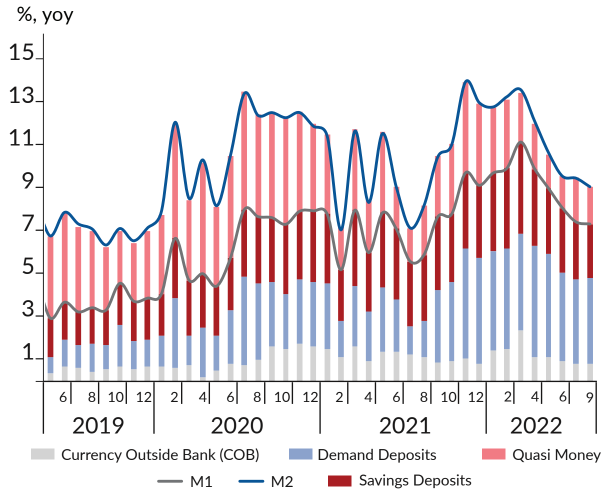
Source: Bloomberg, Bank Indonesia

Graph 7.a. Ratio of Liquid Assets to Deposits



Source: Bank Indonesia

Graph 7.b. M1 & M2: Growth and Components

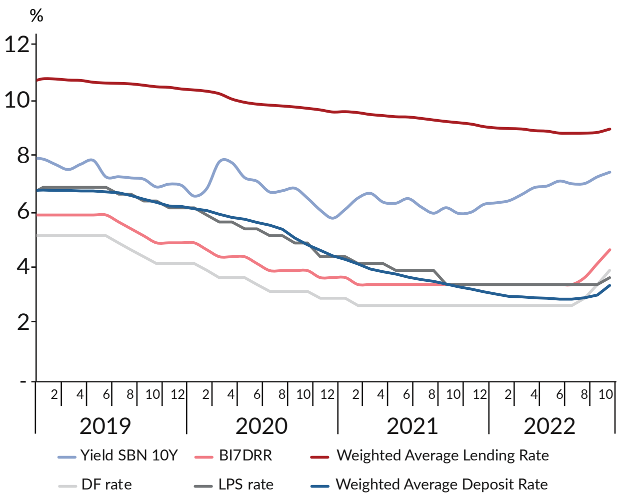


Source: Bank Indonesia

policy by gradually absorbing excess liquidity through higher Rupiah Reserve Requirements (RR) ratio, among others, while still supporting the ability of the banking industry to disburse loans and purchase SBN in the primary market to finance the APBN. In October 2022, the ratio of liquid assets to deposits remained high at 29.46%, though down from the 35.12% position recorded at the end of 2021, as shown in Graph 7.a. Moving forward, Bank Indonesia will continue to ensure that liquidity conditions in the banking sector remain loose, thereby supporting the ability of banks to disburse loans and purchase SBN in the primary market for the APBN financing. Economic liquidity also remains ample, as reflected in the narrow money (M1) and broad money (M2) aggregates, which grew 13.5% (yoy) and 9.1% (yoy) respectively, as shown in Graph 7.b. Money supply growth stems from an increase in savings and quasi-money in line with income from high private consumption. In terms of use, the growth in money supply was dominated by bank credit, thus indicating more financing available for the national economic recovery.

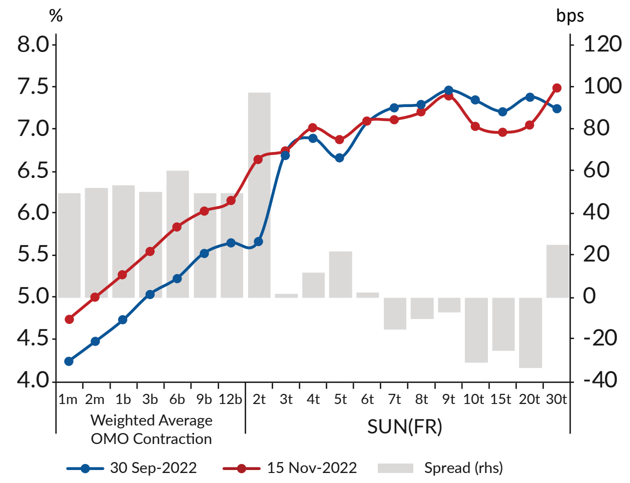
Ample liquidity has supported relatively limited increased in bank lending rates amid rising money market rates in line with the increase of the policy rates. In August-November 2022, Bank Indonesia raised BI7DRR by 175bps to 5.25% as a front loaded, pre-emptive and forward looking measure to anchor overshooting inflation expectations and ensure that core inflation returns to the 3.0±1% target earlier in the first half of 2023, while strengthening Rupiah stabilization policy in line with its fundamental value as a corollary of the strong US dollar and elevated uncertainty in global financial markets, amidst increasing demand in the domestic economy. In the money markets, the IndONIA rate on 15 November 2022 rose 149bps compared with rate at the end of July 2022 to 4.29%, in line with the BI7DRR increase and Bank Indonesia's monetary operations strategy. Yields on short-term SBN rose 289bps, while yields on long-term SBN were relatively subdued. Meanwhile, the increase in bank interest rates, both funding costs and lending rate, only rose to 3.40% and 9.09% respectively at the end of October 2022 (Graph 8.a). This rigidity was in line with ample liquidity, which is prolonging the lag effect of policy rate transmission on funding and lending rates. Meanwhile, the yield on 2-year SBN rose to 6.66% and the benchmark 10-year SBN rose to 7.05% in line with market mechanisms and rising US Treasury yields (Graph 8.b). Bank Indonesia sold short-term SBN and purchased long-term SBN in the secondary market (twist operation) as part of the Rupiah stabilization strategy, while simultaneously dampening the impact of rising US Treasury yields.

Graph 8.a. Banking Interest Rates



Source: Bank Indonesia, OJK, Bloomberg

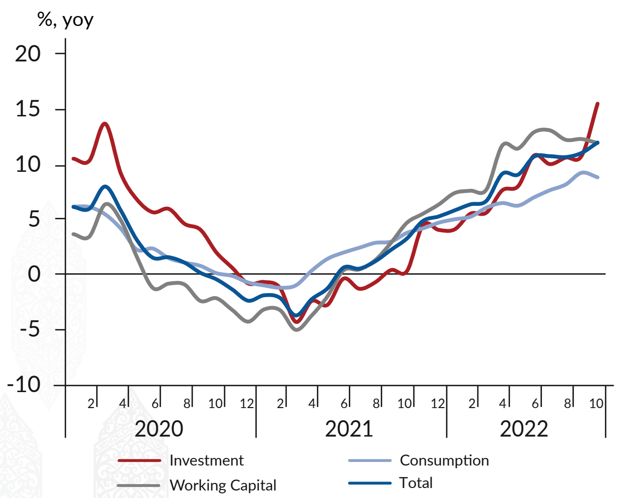
Graph 8.b. SBN Yield Structure per Tenor



Source: Bank Indonesia, OJK, Bloomberg

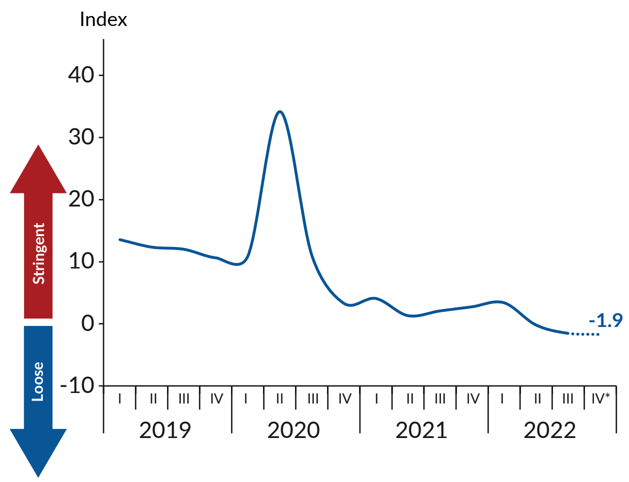
The bank intermediation function continues to improve and support the economic recovery. Credit growth in October 2022 stood at 11.95% (yoy), boosted by broad-based increases across all loan types and all economic sectors (Graph 9.a). Working capital loans grew by 11.90%, while investment loans and consumption loans grew by 15.47% and 8.79% respectively. Intermediation in the sharia banking industry also continues to recover, with financing growth of 18.4% (yoy) in October 2022. On the supply side, a stronger intermediation function was supported by lending standards that remain loose in the banking industry given the improving appetite to disburse loans, primarily to the manufacturing industry, construction, trade, and agriculture sector (Graph 9.b). On the demand side, an ongoing corporate and household sector recovery is driving intermediation. Corporate sector performance is reflected by improving repayment capacity, sales, and capital expenditures (Capex), particularly in the trade and mining sectors. Similarly, household performance is improving as indicated by improving consumption and investment in line with consumer optimism. In terms of MSME, loan growth

Graph 9.a. Credit Growth



Source: Bank Indonesia, OJK

Graph 9.b. Lending Standard Index



Source: Bank Indonesia

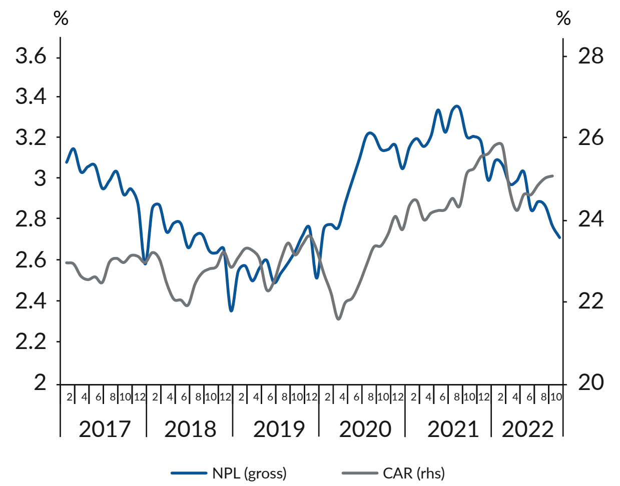
Note: * Projection

was recorded at 17.50% (yoy) in October 2022, primarily underpinned by the micro segment. Bank Indonesia appreciates the banks' contribution to accelerate national economic recovery by increasing lending and financing to the business sectors, while maintaining accommodative lending rates. Considering such developments and the synergic efforts made by the authorities, financial sector and corporate sector, Bank Indonesia projects credit growth in 2022 in the 9-11% range and will continue to increase to 10-12% in 2023.

The resilience of the financial system, particularly the banking industry, has been maintained, in terms of capital, credit risk, and liquidity. The Capital Adequacy Ratio (CAR) in the banking industry was still high in September 2022 at 25.09% in line with rising capital components of accumulated profit and risk-weighted assets (RWA) with mitigated credit risk as reflected by low NPL ratios in September 2022 of 2.78% (gross) and 0.77% (net) - (Graph 10.a). This confirms that the provisions for impairment losses prepared by the banking industry are sufficient to mitigate credit risk. Liquidity risk in the banking industry is also low with ample liquidity, as indicated by the ratio of liquid assets to deposits as described above. However, the potential impact of a number of risk factors, both in terms of domestic macroeconomic conditions and external shocks, still demands vigilance in order to maintain the resilience of the banking system. These risks include credit risk with continued Loan at Risk (LaR) in several economic sectors, such as construction and accommodation, due to the scarring effect of the Covid-19 pandemic, liquidity risk due to faster credit growth than deposits, as well as market risk due to the Rupiah depreciation and rising SBN yields. Meanwhile, Bank Indonesia's simulations confirmed that bank resilience has been maintained. This is also in line with the results of the Systemic Risk Survey conducted by Bank Indonesia based on a sample of 120 respondents from financial institutions, corporations, economist, and academics in October 2022, showing that most respondents confident and strongly confident that financial system stability would be maintained up to or beyond the next 6 (six) months (Graph 10.b).

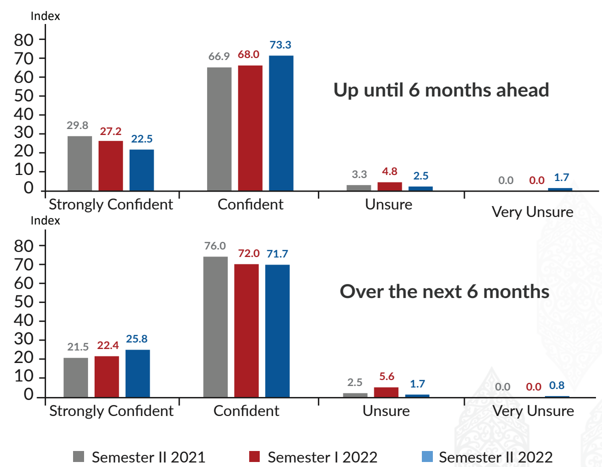
Digital economy and finance transactions are growing rapidly in line with Bank Indonesia's policy to accelerate payment system digitalization in order to support national economic recovery. Digital economic and financial transactions continue to increase with rapidity in line with greater public acceptance and growing public preference towards online retail as well as the

Graph 10.a. Banking Capital and Credit Risk



Source: Bank Indonesia, OJK

Graph 10.b. Perceptions of Financial System Stability



Source: Bank Indonesia

expansion and convenience of the digital payment system and accelerating digital banking. The value of electronic money transactions is projected to increase by 32.2% (yoy) in 2022 to reach Rp404 trillion before increasing another 25.7% to a value of Rp508 trillion in 2023 (Table 6). In addition, the value of digital banking transactions is projected to increase by 30.2% (yoy) in 2022 to reach Rp53,144 trillion, before gaining another 27.2% in 2023 to reach Rp67,600 trillion. The acceleration of payment system digitalization also prompted strong e-commerce transactions growth, which are estimated to increase by 21.9% to reach Rp489 trillion in 2022 and then increase by 17.0% to Rp572 trillion in 2023. To support payment system acceleration and innovation, Bank Indonesia continues to implement the Indonesia Payment System Blueprint (BSPI) 2025, both the expansion of acceptance and payment service features of QRIS and BI-FAST, as well as the application of SNAP and the consolidation of the Indonesian payment system industry to form strong and competitive unicorns from Indonesia. Bank Indonesia is also expanding cooperation in terms of cross-border payment systems in ASEAN and other countries. In terms of cash, currency in circulation is predicted to increase 7.6% (yoy) in 2022 to Rp1,033 trillion and then by 7.5% in 2023 to reach Rp1,111 trillion. Furthermore, Bank Indonesia continues to ensure the availability of quality Rupiah currency fit for circulation throughout the territory of the Republic of Indonesia, including the new 2022 issuance of Rupiah banknotes.

National economic resilience and recovery from the projected impact of global turmoil in 2023 will bring the prospect of a medium-term economic revival in pursuit of Advanced Indonesia. Bank Indonesia's policy response in synergy with the national policy mix will accelerate growth and economic revival in the following years. In the medium-long term, the economic outlook will improve on a trajectory to achieve Advanced Indonesia, driven by the improving global economic outlook as well as increasing investment and productivity from the implementation of structural reform policies in the real sector and the acceleration of the national

Table 6. Indonesia's Payment System Forecast: 2022 - 2024

Transaction	Growth (%)			Value (IDR trillion)		
	2022*	2023*	2024*	2022*	2023*	2024*
Digital Economy and Finance						
E-Commerce	21.9	17.0	20.4	489	572	689
Digital Banking	30.2	27.2	29.0	53,144	67,600	87,233
Electronic Money	32.2	25.7	26.1	404	508	640
Card-Based Payment						
ATM-Debit Cards	21.4	2.3	3.9	7,959	8,140	8,457
Credit Cards	31.4	13.4	13.8	321	364	415
Bank Indonesia Payment System						
SKNBI	3.1	2.2	3.1	5,054	5,166	5,324
BI-FAST		2.0	0.7	1,986	5,919	9,884
BI-RTGS	15.1	12.8	13.6	98,141	110,979	126,037
Rupiah Currency Distribution						
Currency in Circulation (UYD)	7.6	7.5	7.8	1,033	1,111	1,197

Source: Bank Indonesia

Note: * Bank Indonesia's Projection

digital economy and finance. Increasing economic competitiveness as well as industrial capacity and capability support higher and more resilient economic growth with a better economic structure. The success of downstreaming policy will increase not only the value added of exports, but also boost investment and productivity. In addition, a more conducive business and investment climate, including through the implementation of the Job Creation Law, will strengthen sources of higher economic growth. We predict that in the medium term, Indonesia's economic growth will continue to increase in the range of 4.8-5.6% in 2025, 4.9-5.7% in 2026, and 5.0-5.8% in 2027. Inflation is predicted to remain low in the range of 1.5-3.5%, supported by increases in national production capacity through higher efficiency and productivity to meet rising aggregate demand in the economy. The current account deficit is also predicted to remain manageable at a low level, thereby underpinning the resilience of Indonesia's external sector. Overall, with this trajectory of projected outlook, Indonesia is expected to become a high-income developed economy by 2047.

We need to remain vigilance of several risks going forward to bolster economic resilience in Indonesia in the face of world economic turmoil. As explained above, the global economic turmoil is expected to continue in 2023 as reflected by an economic slowdown and potential risk of economic recession in several countries, persistently high inflation due to energy and food prices, high monetary policy interest rates and US Treasury yields, strong US dollar, and uncertainty in global financial markets. The impact through trade channels poses the risk of declining export performance in supporting economic growth as well as persistently strong domestic inflationary pressures due to high global energy and food prices. A larger and immediate impact will be felt in the financial channel. The strong US dollar, high monetary policy interest rates, as well as the risk premium and uncertainty in global financial markets portend the risk of foreign portfolio outflows (capital outflows), rising SBN yields, and depreciatory pressures on the Rupiah. Furthermore, the risk of financial system instability may also increase, both from market risk due to the weakening of the exchange rate and rising SBN yields, as well as credit risk due to declining domestic economic activity.

In addition to the risks in the near term, several medium-term risks demand vigilance in terms of strengthening Indonesia's economic revival towards Advanced Indonesia. From a global perspective, as explained above, political and economic fragmentation will lead to multipolar world trade. The dominance of the US and Europe in the global economy will decrease, while the role of Asia will continue to expand. In addition to China, which will play an increasingly important role, India's role in the global trade and economic arena will also increase. A number of countries in Africa will also grow and become a global trade destination. The occurrence of the multipolar trend at the center of world economic growth and trade requires a change in our strategy and approach in establishing international trade and investment relations, namely from multilateralism to a regional and even bilateral approach to each strategic country. What is more important is the ability to position and increase the competitiveness of the Indonesian economy in the global economy. This is the importance of structural reforms and the development of connectivity infrastructure (physical and digital), which have developed rapidly under the leadership of President Joko Widodo. Therefore, infrastructure development (physical and digital) needs to be continued by focusing on support to increase competitiveness and integration with economic connectivity in Indonesia, as well as establishing linkages for trade and investment with strategic partner countries and regions. The existing downstreaming policy for natural resources needs to be improved moving forward, not only to increase value added in our growth sources and economic structure, but also as a policy to further strengthen trade relations and to attract foreign investment. Improvements in the investment and business climate must remain continuous, both through bureaucratic reform and by increasing the capability of human resources. Economic digitalization is increasingly important, as well as the transition to a green and sustainable economy and finance.

Bank Indonesia Policy Mix in 2022: Maintaining Stability and Momentum for National Economic Recovery

The acceleration of vaccination and the opening of priority economic sectors, which are the prerequisites for the continuation of national economic recovery, as we stated at the 2021 Bank Indonesia Annual Meeting on 24 November 2021, can be carried out well in 2022. Close policy synergy between the Government, Bank Indonesia, and Financial System Stability Committee (KSSK), was able to support the acceleration of vaccination in 2022, thereby enabling the easing of restrictions on mobility to support economic growth in 2022. With the acceleration of vaccination by the Government, which is also supported by financing from Bank Indonesia, Indonesia was able to achieve herd immunity in the second quarter of 2022. In fact, the Government also able to carry out booster vaccinations which had reached 40% of the target in October 2022. The very positive development of vaccination and the increasingly controlled spread of Covid-19 have become a strong basis for the Government to continue easing the mobility restrictions and opening up priority sectors of the economy thereby stimulating economic activity, as well as improvement in the expectation of Indonesia's economic prospects. In line with these policies, the coordination and synergy of KSSK policies in providing fiscal, monetary, macroprudential, and microprudential incentives to these priority sectors also continues to be strengthened. In addition, the scope of priority sectors which received policy incentives was also expanded from 38 priority sectors to 46 priority sectors to further accelerate the recovery of the national economy. These various policy coordination and synergies were able to support Indonesia's continued economic growth to reach 5.72% (yoy) in the third quarter of 2022.

Fiscal and monetary coordination continues to be strengthened in promoting national economic recovery and maintaining stability, including Bank Indonesia's participation in the state budget (APBN) funding through the purchase of SBN in the primary market in accordance with Law No. 2 of 2020. In terms of price stability, the Government increased the allocation of subsidies and energy compensation funds from Rp152.5 trillion to Rp502.4 trillion in 2022 to mitigate the impact of rising global oil prices on inflation and public purchasing power. This role of fiscal policy as a shock absorber, has effectively dampened higher inflation in Indonesia in 2022, with smaller increments than recorded in various other countries. Consequently, the policy response to increase the BI7DRR benchmark rate was also lower than in other countries, both in advanced economies, such as the US, Europe, and the UK, as well as developing economies, including Brazil, India and the Philippines. In addition, as we have explained above, Bank Indonesia in 2022 also supported APBN financing of Rp142.35 trillion, consisting of the purchase of SBN from the primary market based on the joint decree I (KB-I) mechanism of Rp46.93 trillion and joint decree III (KB-III) of Rp95.42 trillion, until 15 November 2022. The continued purchase of SBN from the primary market in 2022 demonstrates Bank Indonesia's strong commitment in supporting APBN funding, both in terms of health and humanitarian financing due to the impact of the Covid-19 pandemic, and accelerating national economic recovery.

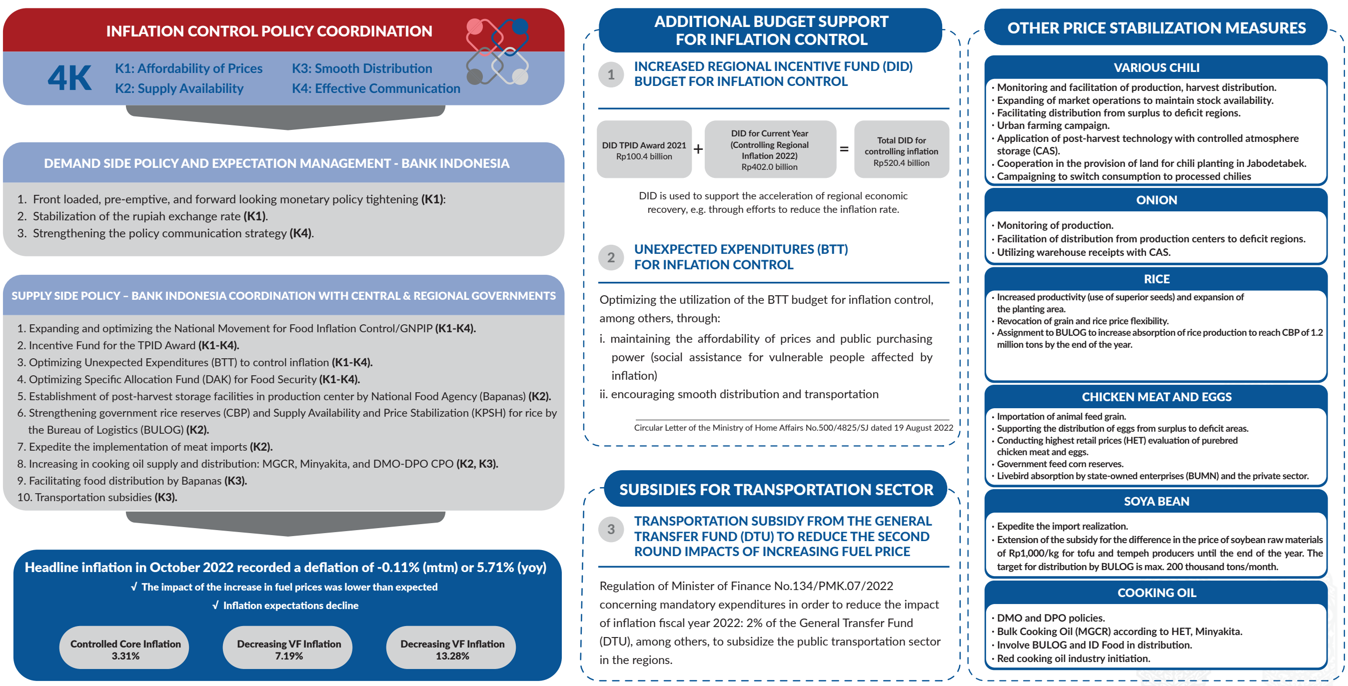
Coordination of inflation control between Bank Indonesia and the Central and Regional Governments was strengthened to control the spillover impact of fuel price adjustments. Geopolitical tensions and rampant food and energy protectionism policies have pushed up global food and energy prices, which in turn led to increased domestic inflationary pressures. The world oil price soared to USD112 per barrel causing the Government to adjust the price of subsidized fuel in September 2022 to maintain fiscal sustainability and reallocate subsidies to be more well-targeted. In this context, Bank Indonesia strengthened coordination and synergy with the Central and Regional Governments through the Central and Regional Inflation Control Teams (TPIP-TPID) to manage the second round impact of fuel price adjustment and the increase in global food prices through various measures (Figure 2). This includes the coordination of inflation control from the demand and supply sides, among others through the National Movement for Food Inflation Control (GNPIP), additional fiscal budget support to lower regional inflation through the Regional Incentive Fund (DID) and the use of Unexpected Expenditures component (BTT), transportation subsidies using the General Transfer Fund (DTU), as well as other stabilization policies that were able to reduce inflationary pressures. This can be seen from inflation in October 2022 which was recorded at 5.71%, lower than the initial estimate.

The direction of the Bank Indonesia policy mix in 2022 continues to be synergized as part of the national policy direction to accelerate economic recovery while maintaining stability. In this regard, in line with the risk of increasing uncertainty in the global financial markets due to tightening monetary policy in advanced economies, especially the US, amid the early stages of economic recovery in the Indonesian economy, Bank Indonesia adopted a policy mix consisting of "one policy to maintain stability and four policies to support economic growth" as we have alluded to before. Monetary policy is directed at maintaining stability (pro-stability), while the other four instruments, namely macroprudential policies, digitalization of the payment system, deepening of the money market, as well as inclusive and green economy-finance are aimed to accelerate national economic recovery (pro-growth).

The salient points of Bank Indonesia's policy mix implemented in 2022 are as follows:

i. **In regard to monetary policy, liquidity, exchange rate and interest rate policies are aimed at ensuring macroeconomic stability.** Thus, the monetary policy stance is not only measured through changes in interest rate policy, but also liquidity policy, as supported by exit policy implementation around the world. Practices in various countries show that there is no uniformity of priorities for monetary policy strategies. Some countries, especially those with large excess liquidity, prioritized normalization of liquidity over interest rate hikes, while countries with high inflationary pressures tended to prioritize increasing interest rates. This emphasize the need to consider both liquidity and interest policy in measuring central bank monetary policy stance.

Figure 2. Policy Coordination for 2022 Inflation Control



Source: Bank Indonesia

In this context, in line with the low core inflation pressures, especially in the first semester of 2022, the monetary policy response was taken by normalizing liquidity in a well-calibrated, well-planned, and well-communicated manner through a gradual increase in the reserves requirement (RR) ratio to 9% for conventional commercial banks and 7.5% for sharia commercial banks and sharia business units. This policy was adopted so that Bank Indonesia would not fall behind the curve in responding to the impact of global financial market uncertainty on macroeconomic stability. Exchange rate stabilization was also strengthened by conducting triple intervention policy in the spot market, DNDF, and buying/selling SBN in the secondary market. Meanwhile, the BI7DRR rate has been raised by 175bps since August 2022 to 5.25% in response to a potential build-up of core inflationary pressures and overshooting inflation expectations moving forward.

ii. **Macroprudential policies have been relaxed in synergy with the integrated policy package of the Financial System Stability Committee to support the national economic recovery.** Bank Indonesia has increased incentives for banks that disburse loans to priority sectors and MSME and/or meet the Macroprudential Inclusive Financing Ratio (RPIM) target in the form of easing Rupiah reserve requirements and expanding the coverage of priority sectors. The relaxation of macroprudential policies further strengthened other accommodative macroprudential instruments, including the Countercyclical Capital Buffer (CCyB), Macroprudential Intermediation Ratio (MIR), conventional and sharia Macroprudential Liquidity Buffer (MPLB), and Loan to Value/Financing to Value (LTV/FTV) ratio for property loans/financing.

iii. **We continue to strengthen payment system policies to support economic recovery and accelerate inclusive digitalization.** This includes: (i) expanding the use of QRIS; (ii) intensification of electronification on Government transactions through the digitalization of government social assistance (bansos) programs, electronification of local government services, particularly through the Acceleration and Expansion of Local Digitalization (P2DD) initiative, as well as integration of transportation modes; (iii) strengthening the implementation of the National Open API Payment Standard (SNAP) by accelerating SNAP adoption for banks and nonbank institutions, as well as providing alternative infrastructure options in accordance with the capacity of participants; (iv) accelerating BI-FAST implementation through increased participation, service expansion, and acceptance of BI-FAST; and (v) payment system pricing policies to support national economic recovery.

iv. The three main policies above are also supported by close synergy between Bank Indonesia and the Government, banks, and other institutions to continue support for MSMEs as well as the sharia economy and finance as new sources of economic growth in Indonesia. Foreign exchange market deepening was pursued to support Rupiah stability and to expand hedging instruments. Promotion of trade and investment between countries, including through the expansion of Local Currency Transactions, also continues to be accelerated. International policy continues to be strengthened by expanding international cooperation with other central banks and monetary authorities, promoting trade and investment in priority sectors in synergy with other relevant institutions as well as ensuring the success of the six priority agendas in the Finance Track of Indonesia's G20 Presidency in 2022.

Rupiah Exchange Rate Stabilization Policy

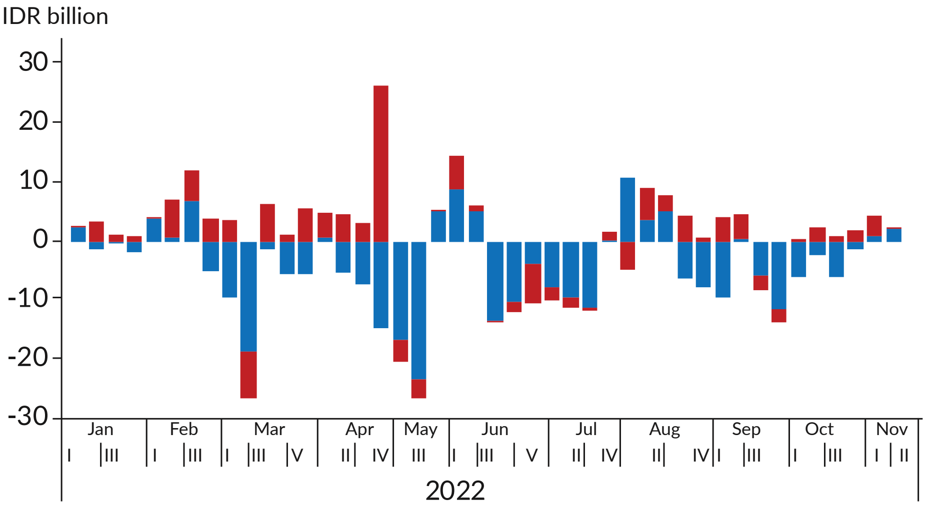
Bank Indonesia continues to strengthen Rupiah exchange rate stabilization measures to maintain the currency in line with its fundamental value against the backdrop of increasing external pressure. Rupiah exchange rate stabilization measures were carried out as part of the efforts to control inflation, especially imported inflation, through intervention in the foreign exchange market, via spot transactions, DNDF, as well as buying/selling SBN in the secondary market by increasing SBN yields to attract foreign portfolio investors. Innovation in the Rupiah stabilization policy was also implemented in the form of "twist operation" by buying/selling SBN in the secondary market to increase the attractiveness of returns on short-term SBN portfolio investments and to encourage a flatter long-term SBN yield structure - which we will explain further in the next chapter. This takes into account the transient nature of inflationary pressures, which will decline back to the target in the medium-long term. As we have said before, amid intense external pressures, Rupiah depreciation in 2022 is still lower than in several other emerging economies. This is inseparable from Bank Indonesia's consistency in monitoring and intervening in the market to maintain Rupiah stability in line with the fundamental value and market mechanisms, as well as the positive perception of foreign investors concerning the promising outlook for the Indonesian economy. Foreign portfolio inflows have returned to the stock market, while capital outflows from the SBN market have subsided, especially since October 2022 (Graph 11).

Liquidity Normalization Policy

Bank Indonesia monetary policy normalization policy were conducted by gradually reducing the excess liquidity in the banking system. Liquidity policy normalization is administered by raising Rupiah reserve requirements in a well-calibrated, well-planned, and well-communicated manner. With this strategy, the increase in the Rupiah reserve requirements will not adversely affect the ability of banks to disburse loans and participate in purchasing SBN to finance state budget (APBN), thereby preserving monetary and financial system stability as well as the ongoing national economic recovery process. Liquidity policy normalization will also support the effectiveness of the BI7DRR policy rate transmission in longer-term tenors.

Raising Rupiah reserve requirements has effectively absorbed excess liquidity without adversely impacting liquidity conditions in the banking industry. Bank Indonesia has raised Rupiah reserve requirements gradually for conventional commercial banks from 3.5% to 9% in September 2022, and for sharia banks and sharia business units from 3.0% to 7.5% in September 2022. Banks that meet these requirements will receive remuneration of 1.5% after considering the incentives for banks disbursing

Graph 11. Bond and Stock Market Portfolio Capital Flows 2022



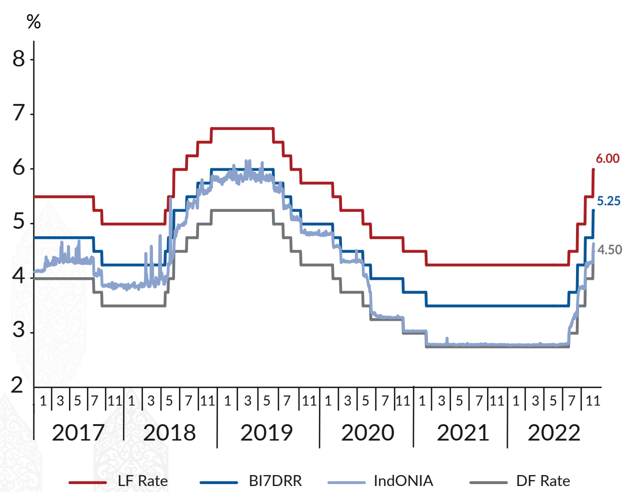
Source: Bank Indonesia

loans/financing to priority sectors and MSMEs and/or achieving the RPIM target. The impact of the increase in the Rupiah reserve requirements on banking liquidity conditions was as expected. At the end of September 2022, this policy has absorbed liquidity to the tune of approximately Rp269.3 trillion. Accordingly, the ratio of liquid assets to deposits decreased from 35.12% in December 2021 to 29.46% in October 2022, which is still nevertheless higher than the average ratio prior to the Covid-19 pandemic, at around 21%. Therefore, bank's support to finance the APBN and to the business sectors was maintained.

Interest Rate Policy

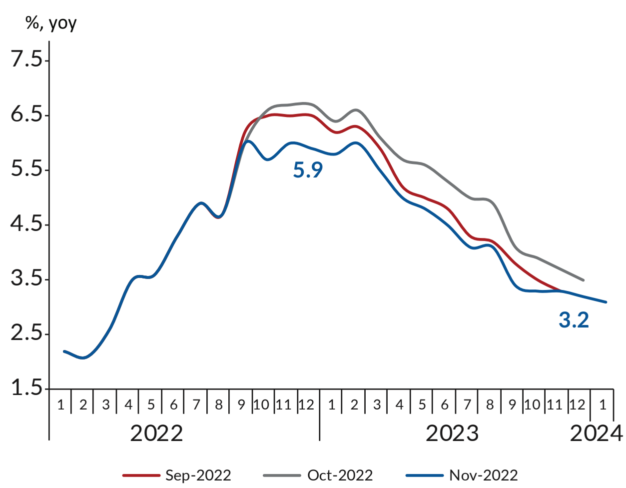
BI7DRR policy rate, which was kept low until July 2022, was raised in August 2022 as a front loaded, pre-emptive, and forward looking measure to ensure inflation stability is maintained going forward. Until mid-2022, core inflation was maintained at a low level below 3% (yoy), in line with the limited impact of demand-side inflation, well-anchored inflation expectations, maintained exchange rate stability, and fiscal policy support in maintaining subsidized fuel prices. Given low core inflationary pressures and an improvement in the national economy, which is still in the early stages of national economic recovery, Bank Indonesia continues to maintain a low BI7DRR policy rate of 3.50%. However, in line with the increasing intensity of global uncertainty, and higher global energy and food prices, the core inflation and inflation expectations were showing signs of rising. Responding to rising core inflation and inflation expectations as a second round impact of rising volatile food inflation and fuel price adjustments, Bank Indonesia began to increase BI7DRR by 25bps in August 2022. This policy was strengthened by additional BI7DRR hike in September 2022, October 2022, and November 2022, each by 50bps to 5.25%, to reduce inflation expectations that are still too high (overshooting) and ensure that future core inflation can quickly return to the 3±1% target in the first half of 2023. The BI7DRR hikes also take into account the need to strengthen the exchange rate stabilization policy, to keep Rupiah in line with its fundamental value, due to the strengthening of the US dollar and high uncertainty in global financial markets, amidst increasing demand in the domestic economy. In addition, the monetary operations were also strengthened by increasing the interest rate structure on the money market in line with the BI7DRR rate hike to lower inflation expectations and ensure that core inflation returns to its target range earlier (Graph 12). With a consistent implementation of monetary policy tightening along with policy coordination with the Central and

Graph 12. BI7DRR and Interbank Money Market



Source: Bank Indonesia

Graph 13. Inflation Expectations



Source: Consensus Economics

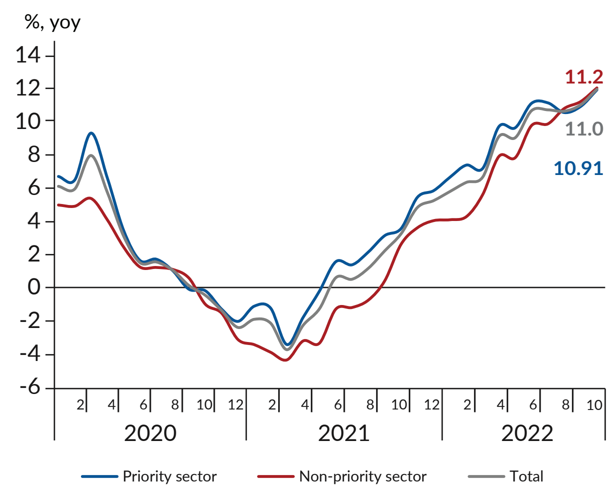
Regional Governments (TPIP and TPID) and National Movement for Food Inflation Control (GNPIP) as we explained above, inflation is lower than the initial estimate. Inflation expectations also began to decline from 6.7% in October 2022 to 5.9% in November 2022, thus will support accelerated decline in core inflation in 2023 (Graph 13).

Accommodative Macroprudential Policy

Bank Indonesia continues to strengthen the accommodative macroprudential policy stance in synergy with the Financial System Stability Committee (KSSK) policies to revive lending/financing to the business sector and to support the national economic recovery. First, we have made improvements to Macroprudential Inclusive Financing Ratio (RPIM) policy, specifically in terms of fulfilling the banks' commitment to the RPIM target set based on the expertise and business model of each bank. With this improvement, bank financing to MSMEs and low-income earners is expected to increase. Second, providing incentives for banks disbursing lending/financing to priority sectors and MSMEs and/or banks achieving the RPIM target, effective 1 September 2022 in the form of increasing the incentives up to a maximum of 1.5% from 0.5% previously, with the incentives for achieving RPIM remain at a maximum of 0.5%. Meanwhile, the scope of priority subsectors has expanded from 38 to 46 priority subsectors. Third, we have maintained the accommodative macroprudential policies instituted previously, by holding the Countercyclical Capital Buffer (CCyB) ratio at 0%, the Macroprudential Intermediation Ratio (MIR) at the range of 84-94%, and the Macroprudential Liquidity Buffer (MPLB) ratio at 6% with repo flexibility of 6%, and the sharia MPLB ratio at 4.5% with repo flexibility of 4.5%. Bank Indonesia has also continued to relax the Loan to Value/Financing to Value (LTV/FTV) ratio for property loans/financing to a maximum of 100% and relaxed the down payment requirements for automotive loans to 0% for all types of new vehicles. Prime lending rate (SBDK) transparency policy is also continuously strengthened to support the effectiveness of the transmission of the policy rate and macroprudential policy.

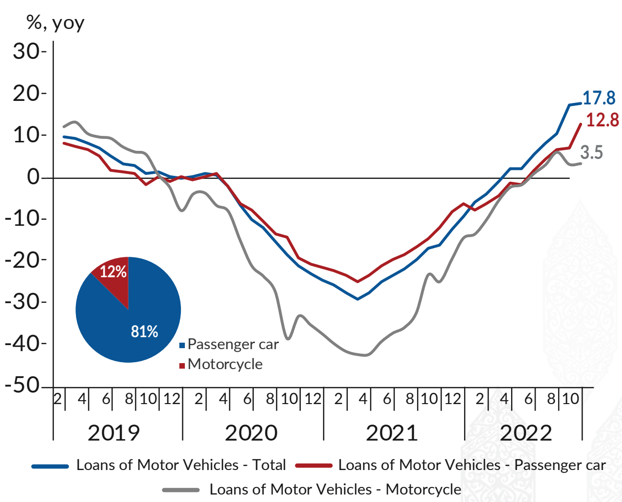
Accommodative macroprudential policy in synergy with KSSK, limited transmission of policy rate hike to banking interest rate, and ample liquidity are able to sustain the improvement of banking intermediation. As explained above, credit growth accelerated to reach 11.95% in October 2022, supported by improvements on both the demand and supply sides. On the supply side, credit growth was also supported by the policy of providing reserves requirement

Graph 14. Credit Growth in Priority and Non-Priority Sectors



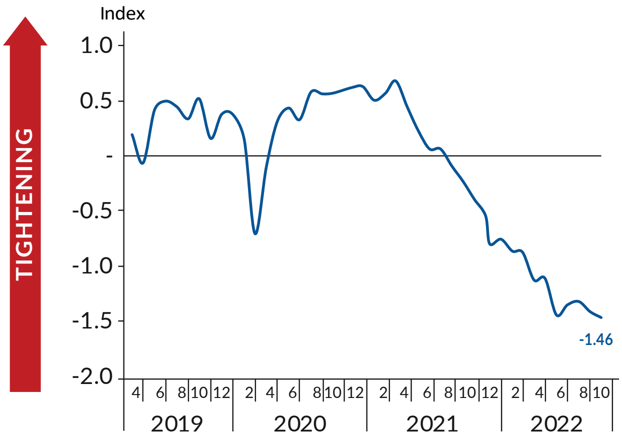
Source: Bank Indonesia, OJK

Graph 15. Automotive Loan Growth



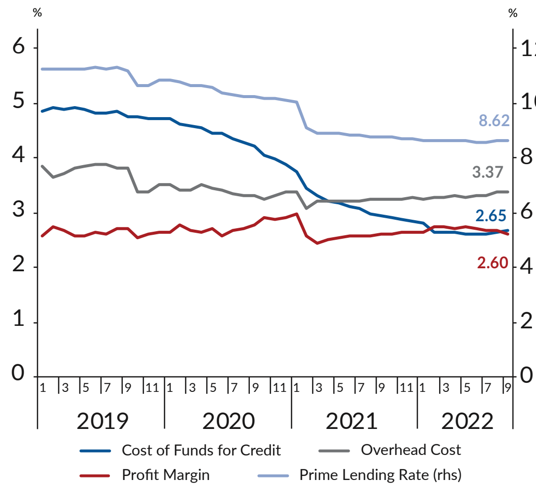
Source: Bank Indonesia, OJK

Graph 16. Lending Requirements Index



Source: Bank Indonesia

Graph 17. Banking Prime Lending Rate Component



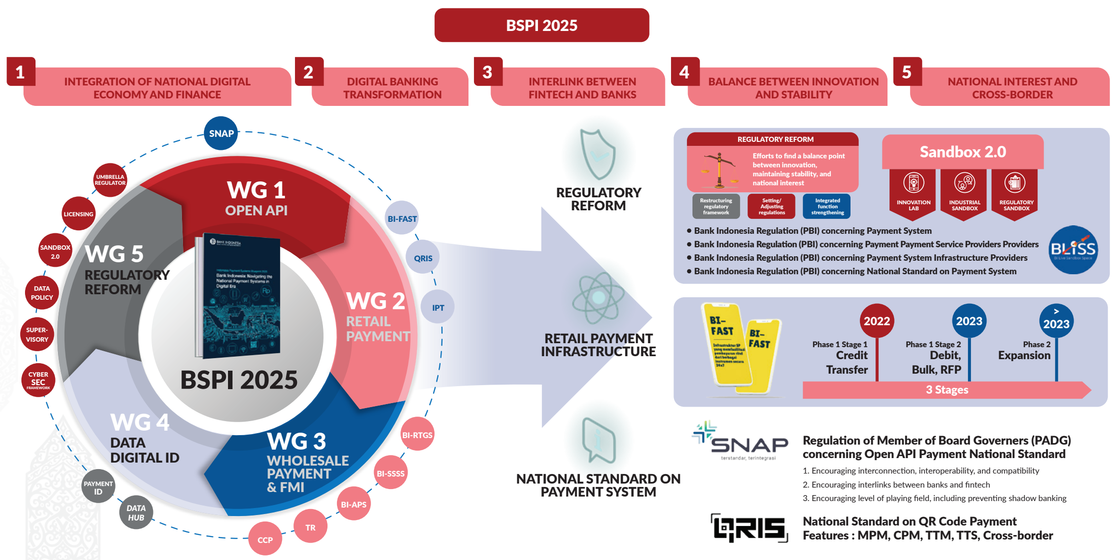
Source: Bank Indonesia, OJK

incentives to banks that disbursing financing to priority sectors, which triggered higher credit growth in priority sectors (Graph 14). The improvement in credit growth was also supported by property and automotive loans, which continued to improve in line with maintained accommodative LTV ratios for property sector and down payments requirements for automotive loans (Graph 15). In addition, the improvement of credit growth in 2022 was also supported by a looser Lending Requirements Index (LRI) in line with lower prime lending rates and lending rates supported by Prime Lending Rate (SBDK) transparency policy (Graph 16 and Graph 17).

Acceleration of Payment System Digitalization

Bank Indonesia in 2022 continues to accelerate and expand the digitalization of payment systems in order to expedite the integration of the economic-financial digital ecosystem while promoting economic recovery. Referring to the Indonesia Payment System Blueprint (BSPI) 2025, the focus of the payment system policy in 2022 is on 3 (three) main priorities, namely regulatory reform, retail payment system infrastructure development, and payment system standardization (Figure 3). Regulatory reform

Figure 3. Development of BSPI 2025



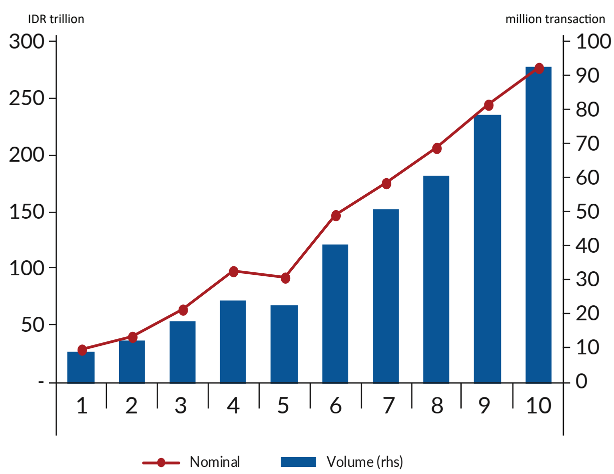
Source: Bank Indonesia

continues as a manifestation of our commitment to simplify licensing procedures supported by strengthening regulations and supervision to encourage innovation while managing risks in the payment system industry. We simplified licensing with a risk-based and activity-based approach, as well as the fulfillment of service standards for efficiency and prudence. The simplification of licensing procedures has shown positive results post-regulatory reform, in which Bank Indonesia has issued almost fivefold the number of principal licenses for organizers compared to the previous period, and nearly twofold approvals for product development and cooperation during July 2021-October 2022. To support the licensing simplification, the supervisory function as part of the payment system regulatory reform in Indonesia is also continued to be strengthened.

The development of an interconnected, interoperable, and integrated payment system infrastructure is carried on to support the national economic-financial digital ecosystem. Bank Indonesia continues to modernize the retail payment infrastructure that is national-driven, real-time settlement, and operates 24/7 through BI-FAST to meet the rapidly growing needs of retail transactions. In the initial stage, BI-FAST services are focused on individual credit transfers before gradually extending to other service channels. With the support of various facilities such as open membership, the option of providing independent or sharing infrastructure, the setting of a maximum transaction limit of Rp250 million per transaction, and the pricing scheme of a maximum of Rp2,500 per transaction for customers with Bank Indonesia fee of Rp19 per transaction for participants, BI-FAST is increasingly in demand by the public. It is reflected by the rapid growth of transactions using BI-FAST in terms of volume and nominal value (Graph 18). In addition, the number of transfer transactions on the digital banking channels has increased by threefold as a result of BI-FAST (Graph 19). The positive performance of BI-FAST shows that BSPI 2025 is able to support industry consolidation and end-to-end integration of the national digital economy and finance, as well as the achievement of a fast, affordable, easy, safe, and reliable payment system (CEMUMUAH).

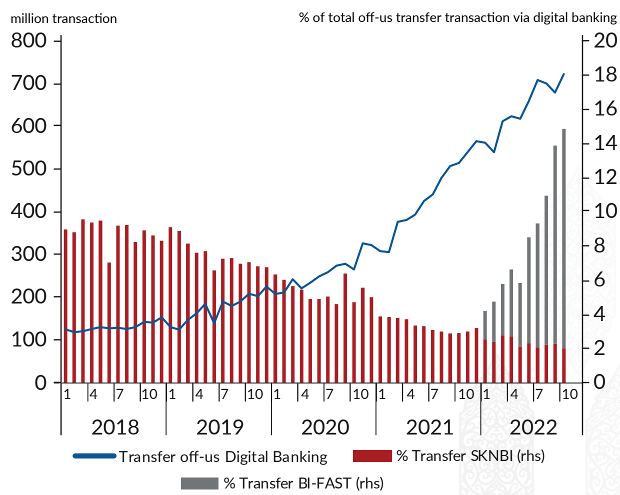
Bank Indonesia continues to expand the usage of QRIS as a national QR standard to accelerate payment system digitalization. The expansion of QRIS adoption continues, both in terms of the number of merchants and users. This year, Bank Indonesia is targeting 15 million new QRIS users across Indonesia. For this reason, a number of initiatives and incentives have been taken, including the extension of the 0% QRIS merchant discount rate (MDR) for micro businesses until 31 December 2022 and an increase in the QRIS transaction limit from Rp5 million to Rp10 million per transaction since 1 March 2022.

Graph 18. BI-FAST Transactions



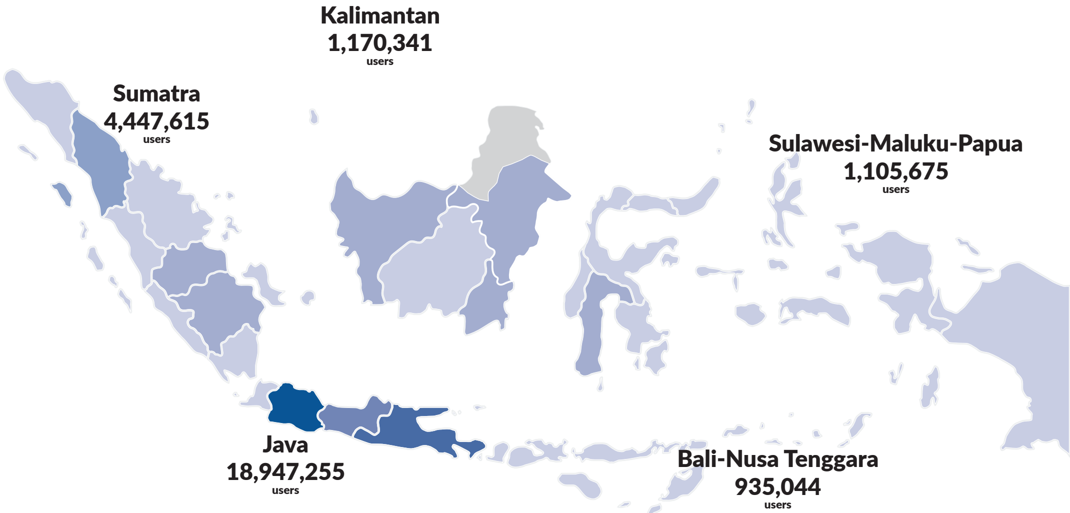
Source: Bank Indonesia

Graph 19. Digital Banking Transactions



Source: Bank Indonesia

Figure 4. Distribution of QRIS Users in Indonesia

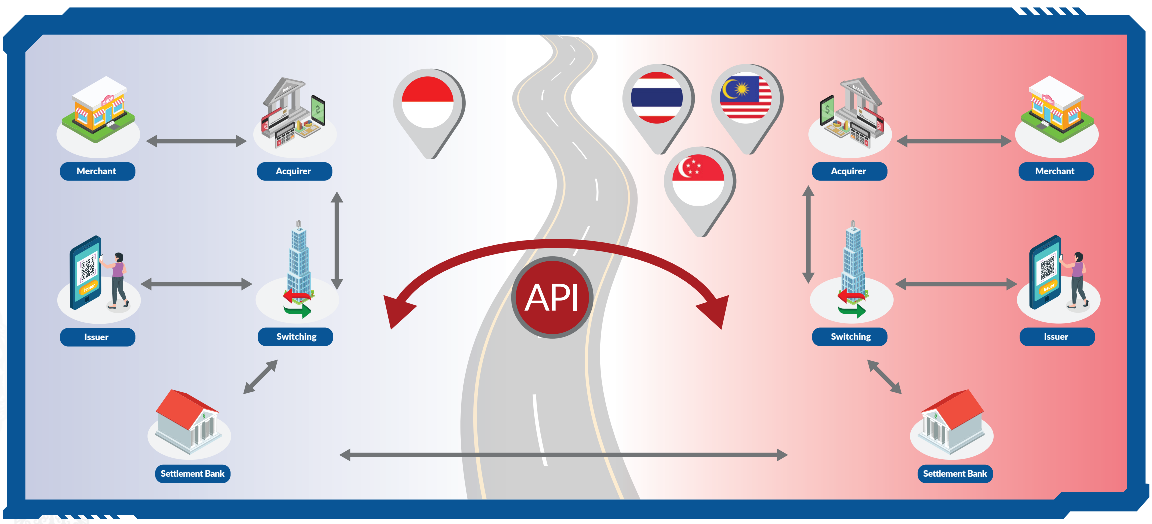


Data as of October 2022
Source: Bank Indonesia

In addition, the development of QRIS features also continues, including preparation for the implementation of the QRIS Transfer Withdrawal Deposit (TTS) feature, in collaboration with Indonesia Payment System Association (ASPI) and the industry. *Alhamdulillah*, thanks to the hard work and synergy of various parties, the target of 15 million new QRIS users has been achieved in October 2022. Today, QRIS, which has covered 22.5 million merchants and more than 26.6 million users, has become an entry point into the digital ecosystem for MSME to support economic and financial inclusion (Figure 4).

The development of QRIS is also aimed to support cross-border payments in order to increase the efficiency of transaction costs between countries. In this context, Bank Indonesia and the Bank of Thailand (BOT) have been implementing cross-border QR code-based payment linkage since the end of August 2022. The transaction settlement mechanism uses the Local Currency Transactions (LCT) method through the Appointed Cross Currency Dealer (ACCD) banks. Cooperation in the use of cross-border QR code is also being expanded, including piloting with Bank Negara Malaysia (BNM)

Figure 5. Cross-Border QRIS Transaction Scheme



Issuer (Account Issuance Services) : The party administering the source of funds
Acquirer (payment initiation/acquirer services): The party forwarding the payment transaction
Switching (PIP): The party who conducting clearing and settlement of the payment transactions
Bank Settlement: Bank appointed by the authority to facilitate the implementation of LCT through the opening of accounts in the partner country's currency in their respective countries

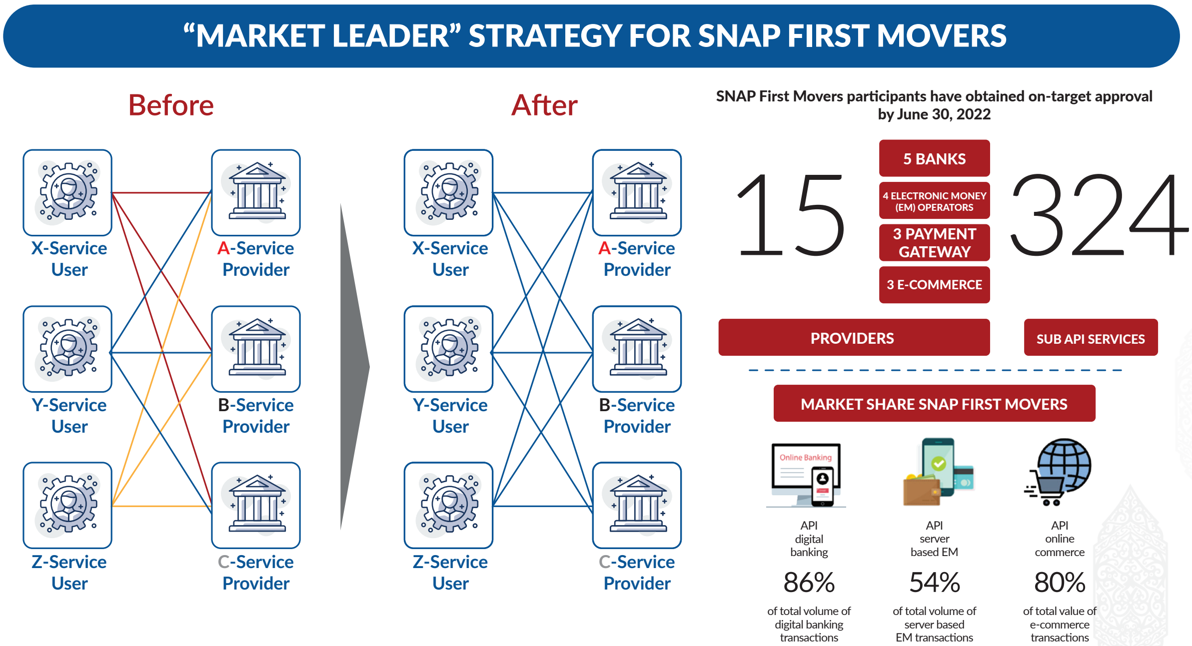
Source: Bank Indonesia

since the end of January 2022 and preparation for implementation with the Monetary Authority of Singapore (MAS) which is planned to start in the fourth quarter of 2023 (Figure 5). These various cooperation initiatives are believed to be able to promote the digitalization of payments and cross-border payments, as planned in BSPI 2025, and are in line with one of the priority agendas of Indonesia's G20 Presidency in 2022 as well as the ASEAN Central Bank Governors' Meeting in April 2022.

The implementation of the Open API Payment National Standard (SNAP) is strengthened by involving the role of market leaders to accelerate the development of the economic-financial digital ecosystem. SNAP, a result of cooperation between Bank Indonesia and the ASPI, was launched on 17 August 2021, and since then, its adoption as a national standard for protocols and instructions that facilitate an open interconnection between applications within payment transaction processing, has been accelerated. The acceleration strategy is implemented by appointing several market leaders as the first movers who are expected to expand the adoption of SNAP. The operationalization of the SNAP in these first movers has represented more than 50 percent of the market share for each segment of the digital economy and finance, such as e-commerce, electronic money, and digital banking. In this context, since June 2022 SNAP has included 15 operators (comprising of 5 bank Payment Service Providers (PJPs), 4 electronic money PJPs, 3 payment gateway PJPs, and 3 e-commerce providers) as the first movers who are market leaders (Figure 6). In the next phase, 86 additional PJPs have been targeted to become the second movers and to start operating in early 2023. The expansion of SNAP implementation is expected to strengthen the interlink between the bank and nonbank PJPs and maintain a level playing field between players, thereby reducing fragmentation and supporting the acceleration of the digital economy and finance in Indonesia.

Payment system policy support for economic recovery through pricing policies continues. First, Bank Indonesia has extended the validity period of the minimum payment limit and the value of late payment penalties policy for credit cards from 30 June 2022 to 31 December 2022. The extension of this policy is aimed at supporting the economic recovery by providing relief to credit card holders in paying bills, maintaining a portfolio of credit card Non-Performing Loan ratios, and reducing the moral hazard risk of credit card holders so that they continue

Figure 6. SNAP First Mover Participants as Market Leader

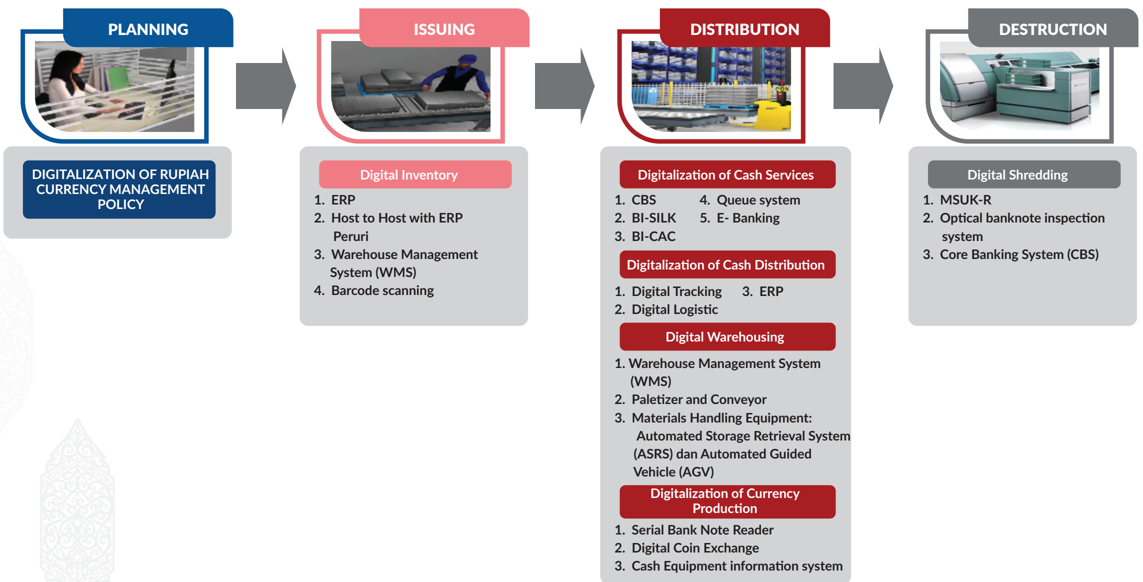


Source: Bank Indonesia

to fulfil their obligations. Second, Bank Indonesia has also extended the validity period of Bank Indonesia National Clearing System (SKNBI) tariff policy of Rp1 from Bank Indonesia to banks and a maximum charge of Rp2,900 from banks to customers from 30 June 2022 to 31 December 2022. The extension of the policy is intended to increase cost efficiency and economic activity for the public, as well as facilitating financial transactions to support economic recovery.

The policy synergy between the central and regional governments, banking, and payment industry associations is also continued to be strengthened to encourage innovation and integration of the digital economy and finance. Under the implementation stages of BSPI 2025, Bank Indonesia in synergy with the Government and State-Owned Banks have issued the Government Domestic Credit Card (KKP) that utilizes the QRIS mechanism on the basis of credit as its source of fund so that all transactions are processed domestically. By using the Domestic KKP, which was launched by the President of the Republic of Indonesia on 29 August 2022, the Central and Regional Governments can perform transactions at more than 22 million QRIS merchants in Indonesia to support short-term economic recovery, increase financial inclusion, including MSMEs, support fiscal health, and encourage economic efficiency. This is also a form of affirmation of the Proud of Indonesian Product National Movement (Gernas BBI). The synergy of national digital payments acceleration is also pursued to increase the acceptance of digital payments through healthy, innovative, and safe to use QRIS (S.I.A.P QRIS) program in various traditional markets and shopping centers in Indonesia. The synergy of payment system electronification acceleration is also pursued by continuing to encourage system integration and intermodal payments, including supporting the preparations for implementing contactless technology on toll roads, which will begin operating gradually by the end of 2022. Furthermore, Bank Indonesia continues to strengthen the electronification of regional government transactions through the synergy of the strategic program of the Task Force for the Acceleration and Expansion of Regional Digitalization (TP2DD), including preparing the flagship championship program for TP2DD. The synergy between ministries/institutions and authorities is carried on by organizing the Indonesia Digital Economy and Finance Festival (FEKDI) as a forum for policy synergy and various programs to accelerate the digital financial economy and national economic recovery. FEKDI activities in 2022 also became a side event in the G20 Finance Track series: Finance and Central Bank Deputies (FCBD) and the 3rd Finance Ministers and Central Bank Governors Meeting (FMCBG) in Nusa Dua, Bali.

Figure 7. Digitalization of Rupiah Currency Management



Source: Bank Indonesia

In the field of Rupiah money management, Bank Indonesia continues the transformation of Rupiah money management in accordance with the implementation stages of the 2025 Rupiah Money Management Blueprint (BPPUR). The transformation is directed at providing currency fit for circulation with appropriate denominations, just-in-time money management driven by the central bank, in line with the direction of less-cash policies, whilst paying attention to efficiency and the national interest. The implementation of the transformation is conducted by promoting digitalization at all stages of Rupiah money management from planning, storage and processing to distribution (Figure 7). In the planning stage, Bank Indonesia implements digitalization in preparing the money demand projection using the Rupiah Money Demand Application and Integrated Analytics (AKURAT) platform to improve the efficiency of the money planning business process. In the storage and processing stage, digitalization is implemented through the principle of less human intervention with the use of robotic machinery and equipment, as well as the implementation of a warehouse management system using a racking system to support the digitalization of money storage. In the distribution stage, Bank Indonesia digitalizes cash services to the public through the provision of the Rupiah Money Order and Withdrawal Application (PINTAR) so that public can order Bank Indonesia cash services online, easier, safer, and more convenient. Policy synergy is also pursued by Bank Indonesia together with the Indonesian Navy by continuing the 2022 Sovereign Rupiah Expedition activities to support the circulation of money to reach the Frontmost, the Outermost, and the Remote areas (3T).

Bank Indonesia has issued new, innovative banknotes in 2022 to improve the quality of Rupiah money. Coinciding with the celebration of the Republic of Indonesia's 77th Independence Day, Bank Indonesia issued new banknotes that embody the spirit of nationhood, nationalism, and sovereignty to foster optimism for national economic recovery. The 2022 issuance of banknotes consists of Rp100,000, Rp50,000, Rp20,000, Rp10,000, Rp5,000, Rp2,000, and Rp1,000 banknotes (Figure 8). The design of the 2022 banknotes retains the main image of national heroes on the front, as well as the theme of Indonesian culture on the back, as with the 2016 banknotes. Moreover, Bank Indonesia has made 3 (three) innovations to strengthen the 2022

Figure 8. Speciment of Rupiah Banknotes for 2022 Emission

	Design Of Rupiah Banknotes for 2022 Emission	Observe Main Image	Reverse Main Image	Size	Dominant Color
Rp100.000		Dr.(H.C.) Ir. Soekarno and Dr. (H.C.) Drs. Muhammad Hatta	Betawi Mask Dance, Raja Ampat, and Orchid Flowers	151 mm x 65 mm	Red
Rp50.000		Ir. H. Djuanda Kartawidjaja	Legong Dance, Komodo National Park, and Balinese Japanese Flowers	146 mm x 65 mm	Blue
Rp20.000		Dr. G.S.S.J. Ratulangi	Gong Dance, Derawan Island, and Black Orchid Flowers	141 mm x 65 mm	Green
Rp10.000		Frans Kaisiepo	Pakarena Dance, Wakatobi National Park, and Rough Forest Cempaka Flowers	136 mm x 65 mm	Purple
Rp5.000		Dr. K.H. Idham Chalid	Gambyong Dance, Bromo Montain, and Tuberose Flowers	131 mm x 65 mm	Brown
Rp2.000		Mohammad Hoesni Thamrin	Minangkabau Plate Dance, Sianok Canyon Natural Scenery, and Jeumpa Flowers	126 mm x 65 mm	Grey
Rp1.000		Tjut Meutia	Tifa Dance, Banda Neira, and Larat Orchid Flower	121 mm x 65 mm	Green

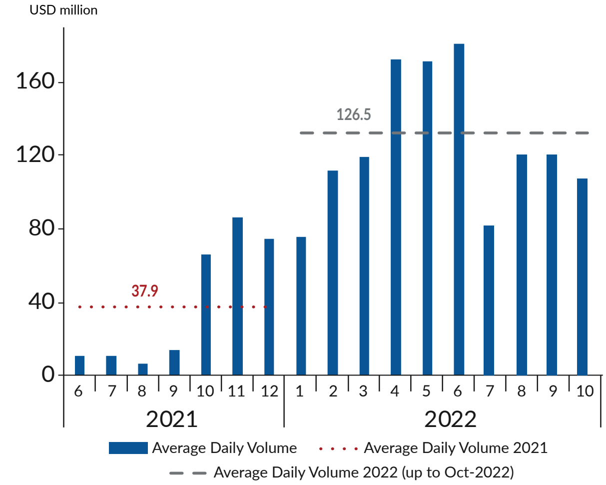
Source: Bank Indonesia

banknotes, namely a sharper colour design, more reliable security elements, and better durability of money materials. With these innovations, it becomes easier to recognize the authenticity of Rupiah, as well as making Rupiah more comfortable and safe to use, and more difficult to be counterfeited. Therefore the Rupiah becomes trusted, more qualified, and a source of pride as a symbol of sovereignty of the Republic of Indonesia.

Money Market Deepening

Financial market deepening is accelerated to strengthen the effectiveness of monetary policy transmission as well as financing for infrastructure and business sectors to support the national economic recovery. Various financial market deepening and development programs are carried out as part of the Money Market Development Blueprint (BPPU) 2025 based on three main pillars: (i) digitalization and strengthening of financial market infrastructure; (ii) strengthening effectiveness of monetary policy transmission; and (iii) developing financial instruments as a source of economic financing and strengthening risk management.

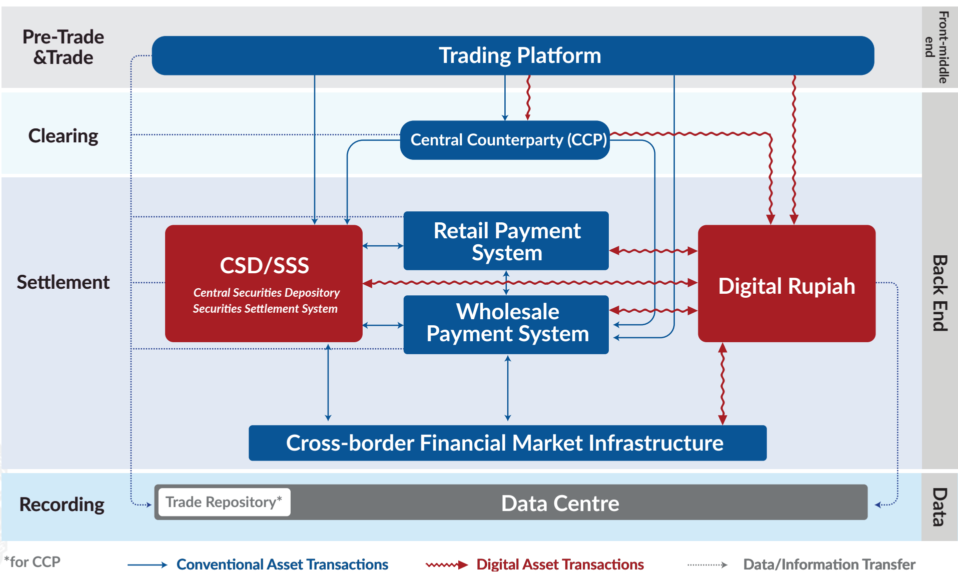
Graph 20. Transactions through BI-ETP



Source: Bank Indonesia

Digitalization and strengthening of financial market infrastructure are continued by strengthening the money market infrastructure which are interconnected, integrated, interoperable, secure and reliable. To promote a more efficient and transparent pricing structure, the development of financial market infrastructure in 2022 is focused on developing the Electronic Trading Platform (ETP) and Central Counterparty (CCP), including granting licenses to existing ETP providers in the money and foreign exchange markets and those with domestic institutions. With the official operation of bilateral and multilateral ETP providers in the money market and foreign exchange market, the participation of market participants to conduct transactions through ETP has

Scheme 1. Financial Market Infrastructure Linkage

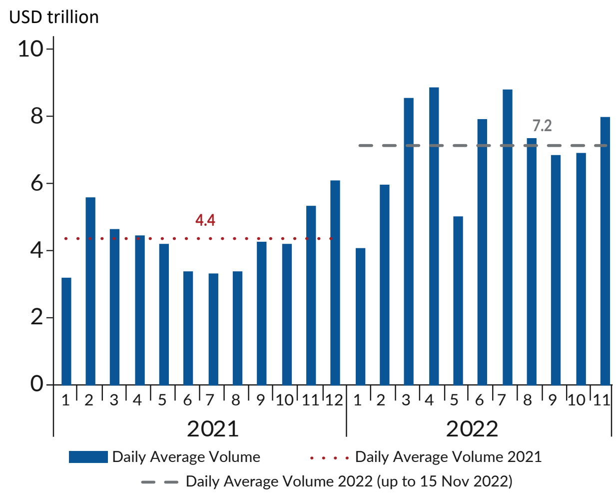


Source: Bank Indonesia

increased almost twofold, from 21 banks in June 2021 to 41 banks in October 2022, accompanied by an increase in the daily average volume of USD/IDR spot transactions through ETP from USD37.9 million in 2021 to USD126.5 million in 2022 (Graph 20). Coordination with relevant authorities and industry associations is also carried on to accelerate the establishment of CCP institutions in the money market and foreign exchange market that are integrated, interoperable, interconnected (3I), both in terms of technical and nontechnical readiness, as a systemically important financial market infrastructure. This development is also supported by the criteria for CCP members, which are in line with the roadmap for participation in payment system infrastructure and Bank Indonesia's financial market infrastructure. In addition, Bank Indonesia is also continuing to develop the BI-Auction Platform System (BI-APS), BI-Scripless Securities Settlement System (BI-SSSS) and BI-Real Time Gross Settlement (BI-RTGS) to align with BSPI 2025 and the future development of digital technology (Scheme 1).

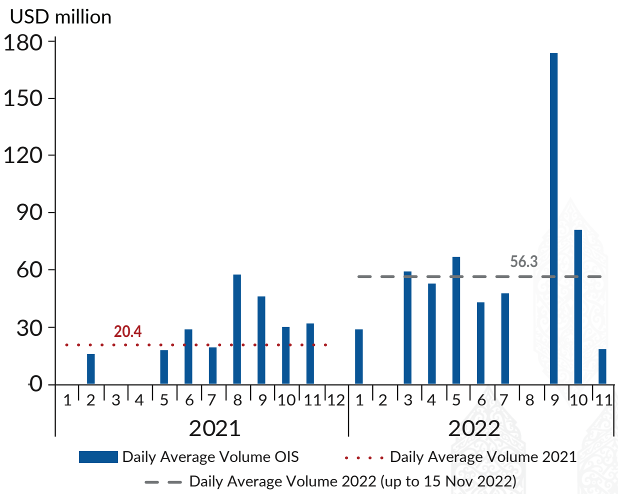
To strengthen the effectiveness of monetary policy transmission, in 2022 Bank Indonesia focus on the repo transaction development program and strengthening the Rupiah reference rate. Repurchase agreement (repo) transactions have been developed in close coordination with the relevant authorities and industry association in the context of standardizing repo transactions between market participants and repo transactions in Bank Indonesia Open Market Operations (OMO), providing liquid and transparent information on repo prices between participants, and expanding the base of nonbank players. With such synergy, the daily average volume of repo transactions increased from Rp4.4 trillion in 2021 to Rp7.2 trillion in 2022 (as of November 2022) - (Graph 21). During the same period, the average repo transaction ratio to total money market transactions also rose from 39% to 45%. Meanwhile, the domestic benchmark reform to strengthen the Rupiah reference rate was conducted by establishing the Indonesia Overnight Index Average (IndONIA) as the Rupiah reference rate for the overnight tenor on 31 March 2022. Synergy with the National Working Group on Benchmark Reform (NWGBR) was also pursued to accelerate the transition of the domestic benchmark reform to IndONIA. This is expected to improve IndONIA-based financial market products and strengthen the integrity of the Rupiah benchmark rate to support financial market deepening, effective monetary policy transmission and financial system stability. In line with this, average daily transactions of overnight index swap (OIS) derivatives using the IndONIA rate increased from Rp20.4 billion in 2021 to Rp56.3 billion in 2022 (as of November 2022) - (Graph 22).

Graph 21. Daily Average Repo Volume



Source: Bank Indonesia

Graph 22. Daily Average OIS Volume

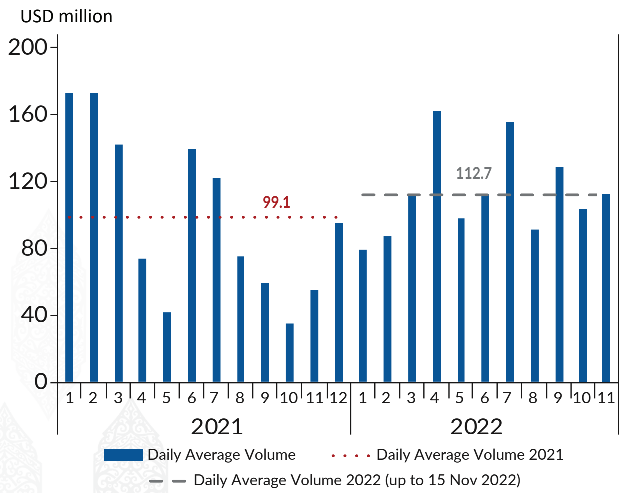


Source: Bank Indonesia

Bank Indonesia also continues to develop the foreign exchange market with a focus on developing Domestic Non-Deliverable Forward (DNDF) transactions as well as expanding and strengthening the Local Currency Settlement (LCS) framework. The initiative to develop DNDF transactions is carried out by increasing transaction flexibility to stimulate supply–demand and foster efficient price formation through implementation of non-USD/IDR reference rates. The DNDF development initiative aims to improve the terms of transactions in the foreign exchange market, including integration and simplification of provisions; arrangements with a principle-based approach to increase flexibility and effectiveness of implementation; and support for optimal supply and demand of foreign exchange. In line with these initiatives, as well as the continued national economic recovery and the increasing need for hedging on securities holdings, average daily DNDF transaction volume increased from USD99.1 million in 2021 to USD112.7 million in 2022 (as of November 11, 2022) - (Graph 23). Meanwhile, Bank Indonesia continues to expand the use of the LCS, including through the establishment of the National LCS Task Force in May 2022, as a form of synergy and national commitment to accelerate the use of the LCS. Furthermore, we also expanded the scope of LCS cooperation with Thailand by including DNDF in the cooperation. The LCS framework was also strengthened and developed into Local Currency Transactions (LCT), which include not only current account transactions but also capital and financial account transactions, including as a transaction settlement mechanism in the context of implementing cross-border QR Code cooperation (QRIS Cross-border) with Thailand and piloting with Malaysia. These various measures supported an increase in LCS transaction volume from an average monthly amount of USD211.2 million in 2021 to USD354.0 million in 2022 (as of October 2022) – (Graph 24).

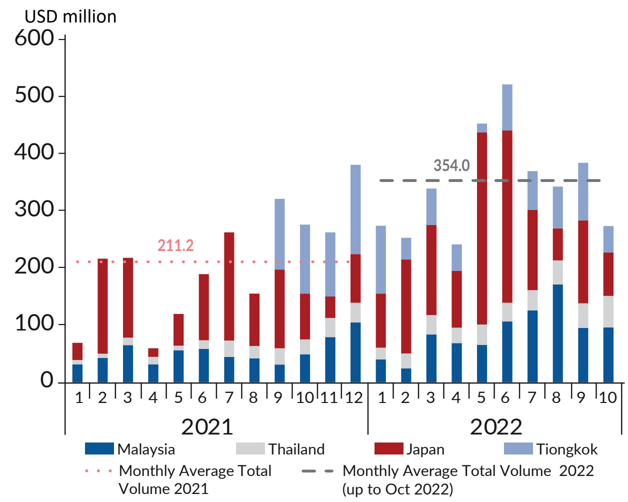
Bank Indonesia continues to develop financial instruments as a source of economic financing and to strengthen risk management in synergy with the financial sector authorities and market players. Synergy in the Coordination Forum for Financing Development through Financial Markets (FK-PPPK) was strengthened, among others, through the development of asset securitization with underlying lending/financing for MSMEs, the development and piloting instruments of sustainable financing and derivative transactions (environmental, social and governance/ESG). The synergy was also strengthened by developing programs to expand retail investors through the financial literacy education program (LIKE IT), which this year focused

Graph 23. Daily Average DNDF Transactions



Source: Bank Indonesia

Graph 24. LCS Monthly Volume



Source: Bank Indonesia

on literacy for green finance and sharia finance instruments. Synergy for the development of the money market and foreign exchange market was also carried out by harmonizing money market taxation arrangements to support the development of money market instruments as a source of financing for national economic development.

Development of Sharia Economy and Finance, and MSMEs

Bank Indonesia continues to accelerate the national sharia economy and finance as a new source of inclusive economic growth, in synergy with the Government and other stakeholders. Strengthening and expansion of the sharia economy and finance ecosystem continues through three strategic pillars, namely development of the halal value chain, sharia finance, as well as education and socialization. In the first pillar, the halal value chain is developed by strengthening the capacity of sharia businesses and business models, institutional arrangements, as well as supporting infrastructure, which includes accelerating the halal certification process. In 2022, the policy focused primarily on the major sectors of the sharia economy, in particular halal food and modest fashion. In the halal food sector, strengthening is pursued through the development of a community-based food commodity business model to increase production, particularly for commodities that contribute to inflation as well as substitutes for imported raw materials. Technical assistance support to accelerate the halal product certification process remains ongoing. In the modest fashion sector, development efforts continue to be made, among othe by holding the Indonesia International Modest Fashion Festival (In2MotionFest) at the 9th Indonesia Sharia Economic Festival (ISEF) in 2022 in collaboration with the Ministry of Cooperatives and SMEs. This international event represents the manifestation of end-to-end efforts to develop the Indonesian modest fashion sector, from increasing the capacity of business actors and improving product quality to expanding market access.

In the sharia finance pillar, the development of sharia money market instruments, strengthening regulations, and expanding transactions were continued to increase sharia financing. Instrument development was pursued by, among others, issuing the Inclusive BI Sukuk (SukBI) to support the development of sharia monetary and money market instruments. This Inclusive SukBI is a BI Sukuk issued by Bank Indonesia using SBSN inclusive as the underlying, namely SBSN issued by the Government to finance certain inclusive activities, such as empowerment of MSMEs and low-income earners as well as green economy. The Inclusive SukBI is also expected to be utilized by sharia banking to meet macroprudential policy provisions, including the Inclusive Macroprudential Financing Ratio (RPIM) and Macroprudential Liquidity Buffer (MPLB). Bank Indonesia has also developed a swap instrument for hedging by sharia banks to Bank Indonesia to strengthen the exchange rate management of sharia banking and to support monetary management that is integrated with money market development. This hedging swap instrument is carried out with a complex hedging transaction scheme *(akad al-tahawwuth al-murakkab)* in accordance with the fatwa of the National Sharia Council No. 96/DSN-MUI/IV/2015. The availability of hedging swaps is expected to strengthen risk management for sharia banks and bolster confidence to conduct foreign exchange transactions to support economic financing. Standardization of cooperation agreements for Interbank Sharia Principles-Based Fund Management Certificate (SiPA) transactions, as well as support to increase outright transactions of sharia securities in the secondary markets and underlying for SiPA and sharia repo transactions have also been implemented to support the expansion of sharia financing transactions. Sharia finance infrastructure and regulations continue to be strengthened through the promulgation of regulations in the foreign exchange market based on sharia principles. In addition, strengthening the social finance sector continues, including the development of an integrated model of commercial and social finance in the form of a productive waqf model – in collaboration with the Awqaf Properties Investment

Fund – Islamic Development Bank (APIF-IsDB) – and non-cash ZIS distribution.

In the education and socialization pillars, synergy to organize the series of FESyar and ISEF activities in 2022 was strengthened to provide a significant contribution to advance the sharia economy and finance in Indonesia. In 2022, Sharia Economic Festivals (FESyar) were held in three regions as the Road to ISEF, namely in Makassar for Eastern Indonesia, Aceh for the Sumatra region, and Surabaya for the Java region. The 9th ISEF in 2022 was also strengthened by the announcement of three activities to advance the national sharia economy moving forward. *First*, declaration of the Global Halal Hub (GHH) as an integrated ecosystem to accelerate the development of flagship local halal products with a global orientation to support efforts to establish Indonesia as the largest halal product producer globally. *Second*, launching of the Halal Certification Acceleration Movement through close synergy among policymakers. *Third*, the In2MotionFest as the world pre-eminent modest fashion show.

Alhamdulillah, with close synergy between Bank Indonesia and the National Sharia Economy and Finance Committee (KNEKS), relevant ministries/institutions and other strategic partners, including international organizations, such as IsDB, UNDP, IILM, IFSB and the World Zakat Waqf Forum, the 9th ISEF series of activities in 2022 produced very encouraging results. This year's series of FESyar and ISEF activities were attended by more than 560 thousand visitors and 950 participants, many more than the previous year (Figure 9). Total transaction value during FESyar and ISEF also increased to Rp27.6 trillion, including financing disbursed by sharia financial institutions, business-to-business transactions, business-to-customer transactions, as well as zakat, infaq, sadaqah and waqf (ZISWAF). Bank Indonesia sincerely appreciates all parties that supported the successful implementation of FESyar and ISEF in 2022 for the advancement of the sharia economy and finance in Indonesia.

Bank Indonesia continues to work in synergy to promote an inclusive and green economy and finance that supports economic recovery by

Figure 9. Outcome of the 9th ISEF and FESyar 2022

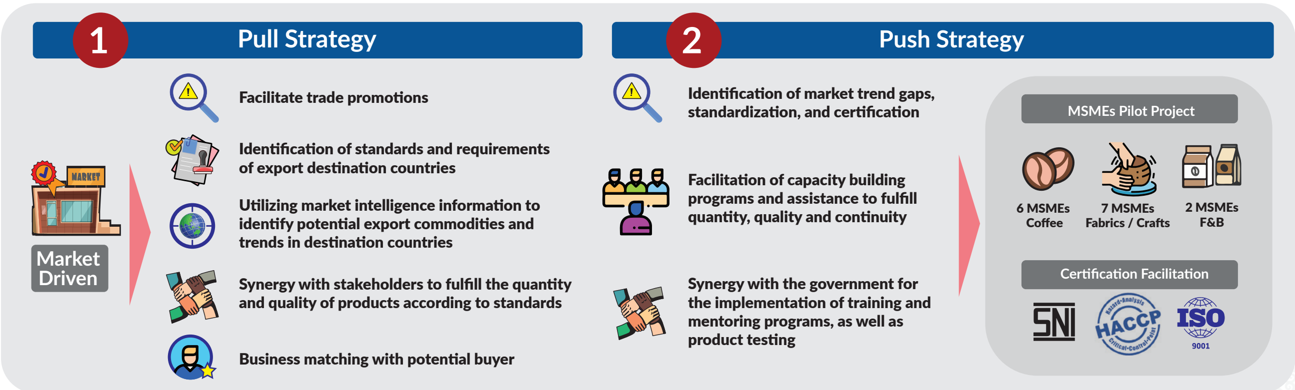
Source: Bank Indonesia

strengthening MSME competitiveness as a new source of national economic growth. MSMEs are levelling up to "go export and go digital", which Bank Indonesia strengthened through three main strategies, namely corporatization, capacity building and financing. The corporatization of MSME aims to increase economies of scale through the formation of groups supported by strong social capital as well as formal and modern institutions that support improvements in efficiency, market access, as well as MSME access to finance. This is achieved by, among others, nurturing: i) collaboration between MSMEs, collaboration with large enterprises and collaboration with financial institutions; ii) corporatization of subsistence groups vulnerable to negative economic shocks and with limited access to formal financial services and economic opportunities; and iii) corporatization of underserved and unbanked conventional and sharia MSMEs, including ultra-micro entrepreneurs, beneficiaries of philanthropic funds, and recipients or family members of social assistance programs, such as the Family Hope Program (PKH).

Capacity building focuses on increasing productivity by expanding market access as well as fostering innovation and digitalization of the business processes to improve MSME competitiveness. In an effort to develop "go export MSMEs" Bank Indonesia implemented two major strategies, namely the pull strategy (market driven) and the push strategy (Figure 10). The pull strategy utilizes market intelligence to identify market potential and standardization, trade facilitation, and synergy with relevant stakeholders. Through the push strategy, certification is facilitated along with product curation to ensure high quality standards as well as interconnectedness with global supply chains (Figure 10). Meanwhile, the development of "go digital MSMEs" continues through adoption of digital technologies to increase productivity and efficiency, unlock market access nationally and globally online and offline, expand MSME access to finance, and facilitate transactions as the entry point to the economic-financial digital ecosystem through, among others, greater QRIS adoption. In addition, Bank Indonesia also continues to encourage the development of green MSME. This includes the development of green MSME business models and the adoption of environmentally friendly MSME business practices, from the use of raw materials and the application of a circular economy to the efficient use of energy.

Expanding access of MSME financing is continuously encouraged to support business expansion. In line with government policy to increase MSME loans, which is targeted to reach 30% by 2024, Bank Indonesia has also strengthened RPIM policy implementation, as described above, and has also implemented various other strengthening measures. These include the development of a multiple channel financing business model, financing business matching, the Financial Information

Figure 10. Export-Oriented MSME Development Strategy



Source: Bank Indonesia

Recording Application (SIAPIK), Potential Funded MSME Database (BISAID), and expansion of QRIS uptake. With such strengthening measures, MSMEs will become more bankable, thus facilitating access to formal financing from financial institutions.

Synergy with ministries/institutions, associations, and communities is continuously strengthened to increase the competitiveness of MSMEs. The development of subsistence groups to increase financial inclusion is carried out in synergy with academics, non-governmental organizations (NGOs), regional government, financial institutions, and industry. Synergy to improve MSME competitiveness is undertaken by strengthening the capacity of MSMEs to "go export and go digital," increase access to finance, and increase access to marketing through various national exhibitions, while promoting international trade. To accelerate the national economic recovery, Bank Indonesia has consistently supported the Proud of Indonesian Product National Movement (Gernas BBI) and Proud Traveling #DiIndonesiaAja (BWI) movement through active contributions from all of Bank Indonesia representative offices, including hybrid retail program for MSME products and expanding the use of MSME QRIS at various strategic Bank Indonesia events (Figure 11).

Close synergy with ministries/institutions, associations and communities also succeeded in organizing the Karya Kreatif Indonesia (KKI) 2022 event as a momentum for the post-pandemic revival of MSMEs. The KKI in 2022, which was held in a hybrid format after the two previous years of virtual events, took the theme "Indonesian MSME Revival through Digitalization and Globalization Towards Sustainable Economic Growth". This theme contains three keywords, namely synergy, digitalization, and globalization, as represented by the hashtags #BersamaUMKMbangkit and #UMKMgodigital_goglobal. At this KKI, Bank Indonesia together with 13 ministries/institutions, 5 associations, 26 industry players, the banking industry, payment system players, marketplaces, export aggregators and designers collaborated in synergy to revive Indonesian MSMEs and support the domestic economic recovery. The digitalization of MSMEs was also encouraged through the use of QRIS, thus enabling Indonesian MSMEs to not only become reliable players at the national level but also internationally. Through close cooperation to realize the shared commitment to encourage Indonesian MSMEs to level up, KKI in 2022 recorded very encouraging performance. Turnover increases by 42%, number of visitors increases by 541%, financing grows by 2,924%, and commitments from business

Figure 11. GBBI and National BWI Movement #DiIndonesiaAja

Source: Bank Indonesia, Kemenkomarves, Kemenparekraf

Figure 12. Outcome of Gernas BBI (Bank Indonesia as Movement Manager), including the KKI 2022

OUTCOME				
Business Matching (Export) **Rp198.1 billion**	Top 3 : Jember (Co Host) : 171 B Babel (GBBI) : 8.40 B Sulsel (GBBI) : 4.6 B	COUNTRIES OF DESTINATION Jember : USA Babel : Singapore & Malaysia Sulsel : China & Hong Kong	COMMODITIES Jember : Coffee Babel : Fabrics, Crafts, Processed F & B Sulsel : Nutmeg, Pepper, Pecan, Cinnamon	TOTAL MSMEs Jember : 1 Babel : 5 Sulsel : 2
Business Matching (Financing) **Rp3.0 trillion**	Top 3 : Sulsel (GBBI) : 2.16 T Maluku (Manggurebe): 678.6 B Papua (GBBI) : 60.8 B	BANKS: Sulsel : 4 banks (Mandiri, BTN, BNI, BRI) Maluku : 4 banks (BRI, Mandiri, BNI, BSI) Papua : 3 banks (Mandiri, BRI, BNI)		TOTAL MSMEs Sulsel : 51.130 Maluku : 17.873 Papua: 60
Business Matching (Domestic Sales) **Rp93.2 billion**	Top 3 : P. Siantar (SSCF): Rp48.69 B Jabar (CoE): Rp29.74 B Jambi (GBBI): Rp5.80 B	COMMODITIES : Pematangsiantar : Coffee Jabar : Coffee Jambi : Coffee, Horticulture		TOTAL MSMEs Pematangsiantar : 1 Jabar : 32 Jambi : 101
Transactions (Overseas Sales) **Rp119.6 billion**	Top 3 : Kepri (GBBI) : 93.77 B Sumut (KKSU) : 10.13 B Jabar (CoE) : 5.72 B	COUNTRIES OF DESTINATION Kepri : Singapore, China, Japan, Netherlands Sumut : Asia, Europe, USA (9 countries) Jabar : Asia, Europe, USA (11 countries)	COMMODITIES Jambi: Coffee, Fabrics, Crafts, Processed F & B Sumut : Coffee	TOTAL MSMEs Kepri : 6 Sumut : 1 Jabar : 6
Exhibition Transactions **Rp34.6 billion**	Top 3 : DKI (Jakreatifest) : 3.85 B Sumut (KKSU) : 3.60 B Banten (KKB) : 3.54 B	COMMODITIES : DKI Jakarta : Coffee, Fabrics, Crafts, F & B Sumut : Coffee, Fabrics, Crafts, F & B, Herbal Banten: Coffee, Fabrics, Crafts, F & B		TOTAL MSMEs DKI Jakarta : 39 Banten : 230 Banten : 108
E-commerce Transactions **Rp30.1 billion**	Top 3 : Jateng (Gayeng) : 7.90 B Kepri (GBBI) : 7.41 B Lampung (GBBI) : 3.46 B	MEDIA : Jateng : Marketplace (Blibli.com) Kepri : Marketplace Lampung : Marketplace	COMMODITIES : Jateng : Coffee, Fabrics, Crafts, F & B Kepri : Coffee, Fabrics, Crafts, F & B Lampung : Coffee, Fabrics, Crafts, F & B	TOTAL MSMEs Jateng : 152 Kepri : 250 Lampung : 60

OUTPUT			
MSMEs participation **70,352** MSMEs in 46 Bank Indonesia Representative Offices	Top 3: Sulsel (GBBI) : 55,928 MSMEs Jambi (GBBI) : 1,253 MSMEs Jateng (Co Host Sulsel) : 1,173 MSMEs	MSMEs as New QRIS Users **5,602** in 46 Bank Indonesia Representative Offices	3 Terbesar : Sumut (KKSU): 1,487 UMKM Jambi (GBBI): 1,000 UMKM Aceh (KKA): 400 UMKM
MSMEs Onboarding **4,079** MSMEs in 46 Bank Indonesia Representative Offices	Top 3: Jambi (GBBI) : 1.044 MSMEs Babel (GBBI) : 400 MSMEs Sulsel (GBBI) : 324 MSMEs	Number of visitors **1,032,835** in 46 Bank Indonesia Representative Offices	Top 3: Sulsel (GBBI): 433.237 participants Malang (Techibition) : 101.222 participants Solo (Kenduren) : 63.875 participants

Source: Bank Indonesia

matching domestic sales and export transactions increases by 36% from the previous year (Figure 12).

Policy synergy is also pursued to encourage the role of MSMEs in efforts to control food inflation through the National Movement for Food Inflation Control (GNPIP). The national movement to control food inflation is implemented in an integrated, end-to-end, and innovative way by prioritizing the 4K approach, namely price affordability, supply availability, smooth distribution, and effective communication. The GNPIP program has been initiated in various regions by 43 Bank Indonesia representative offices and regional Governments, as well as other strategic partners in Regional Inflation Control Teams (TPID). GNPIP is implemented through market operations, urban farming and digital farming, utilization of agricultural tools and machinery and agricultural production facilities, transportation subsidies, and strengthening inter-regional cooperation. *Alhamdulillah*, with the support of all parties, the national movement has been able to support controlling volatile food inflation, which in July reached 11.47% before subsiding to 7.19% in October 2022, as explained earlier.

International Policy

Bank Indonesia's international policies continue to be carried out in synergy with the Government to achieve macroeconomic and financial system stability, support economic recovery, and strengthen diplomacy efforts for the interests of Bank Indonesia and the Indonesian economy. Despite elevated global economic uncertainty, which has impacted the external sector, international and regional cooperation in Asia continues to be strengthened to support external resilience and bolster economic recovery. In this context, Bank Indonesia maintains international cooperation under the framework of the International Financial Safety Net, including through Bilateral Currency Swap Arrangements (BCSA), Local Currency Bilateral Swap Arrangements (LCBSA) and the Bilateral Swap Arrangements with South Korea and Malaysia. Bank Indonesia has also extended the arrangements with China, Australia, Singapore, Malaysia and Japan this year, in addition to a repo agreement with the New York Federal Reserve. Moreover, in June 2022, Bank Indonesia, the Bank for International Settlements (BIS), and several central banks in the Asia-Pacific region signed the Renminbi Liquidity Arrangement (RMBLA) that provides liquidity through a reserve pool scheme, as a liquidity support that can be utilized for financial market stabilization as required.

Bank Indonesia is also expanding and strengthening the implementation of Local Currency Settlement (LCS) cooperation. Indonesia's LCS partners, which are currently Malaysia, Thailand, Japan, and China has been expanded in 2022 with the signing of a memorandum of understanding on Local Currency Transaction (LCT) cooperation between Bank Indonesia and the Monetary Authority of Singapore (MAS). The LCT scheme is an innovation on LCS by expanding the scope of cooperation to accommodate cross-border payment system transactions as an anticipatory measure to the growing digitalization of payment systems. LCT development also intends to strengthen Regional Payment Connectivity initiative through the ease of transaction settlement between ASEAN-5 countries in local currencies to support cross-border trade and investment in the region. Synergy between LCT and RPC is also in line with G20 and regional efforts to diversify currencies, overcome potential obstacles in cross-border payment activities, strengthen economic recovery after the Covid-19 pandemic, and support the ASEAN 2023 priority agenda under the Chairmanship of Indonesia.

Bank Indonesia continues to play an active role in strengthening positive international perception to the Indonesian economy, particularly among rating agencies and foreign investors. This is achieved through regular communication and engagement with rating agencies and foreign investors, including through scheduled investor conference calls to communicate the results of the monthly Board of Governors Meeting (RDG). Investment and trade are also promoted continuously through the Investor Relations Unit (IRU) regionally, nationally, and globally, of Bank Indonesia representative offices at home and abroad, in collaboration with the Central and Regional Governments, as well as representatives of the Government of the Republic of Indonesia abroad. In 2022, for example, Bank Indonesia actively participated in investment and trade promotion activities at the US-Indonesia Investment Forum in New York, the Indonesia Investment Forum in London, and the Singapore International Jewelry Expo in Singapore. *Alhamdulillah*, with the hard work and close synergy of all policymakers, Indonesia in 2022 managed to maintain its rating issued by three major global rating agencies at the investment grade level, even upgrading the outlook to stable.

Bank Indonesia also continues to strengthen international recognition as the best central bank among emerging market countries. This is achieved by increasing Bank Indonesia representation through membership or chairmanship of various international cooperation forums. The increase of Bank Indonesia's reputation is also reflected in the various awards received from highly reputable international institutions, the application of international standards, publication of research and international journals, as well as serving as a reference and resource at various strategic international events. In 2022, Bank Indonesia received international awards as Best Central Bank of the Year from the Global Islamic Finance Awards (GIFA), Contact Center World 2021 Global Top-Ranking Performers at the 15th Annual Next Generation Contact Center and Customer Engagement Conference, Cyber Resilience Initiative Award from Central Banking Publications, Gold Winner 2022 for the International Business Awards (IBA) Stevie Winner and ARC Awards.

Bank Indonesia and the Ministry of Finance during Indonesia's G20 Presidency have discussed six priority agendas in the Finance Track and reaffirmed commitment to confront emerging challenges of the global economy. Indonesia's G20 Presidency has successfully held four Finance Ministers and Central Bank Governors (FMCBG) meetings along with various side events, including high-level seminars, while delivering concrete results on G20 actions in the Finance Track, which are reflected in the various priority agendas of the

Finance Track that have been agreed, as described in detail above. One of the important achievements of Indonesia's G20 Presidency was the signing of a memorandum of understanding on Regional Payment Connectivity between the five ASEAN central banks, namely Bank Indonesia, Bank Negara Malaysia, the Monetary Authority of Singapore, Bank of Thailand, and Banko Sentral ng Pilipinas. This collaboration is based on the need to implement an integrated cross-border payment system between countries in ASEAN-5 to foster more inclusive and sustainable regional economic growth by taking advantage of the rapid digitalization in the economy. These diverse achievements not only reflect global recognition regarding the success of Indonesia's leadership on the international stage but are also concrete actions to support the domestic economic recovery, including the revival of the tourism sector and the promotion of Indonesia's flagship products, which are increasingly going global.

Bank Indonesia Transformation

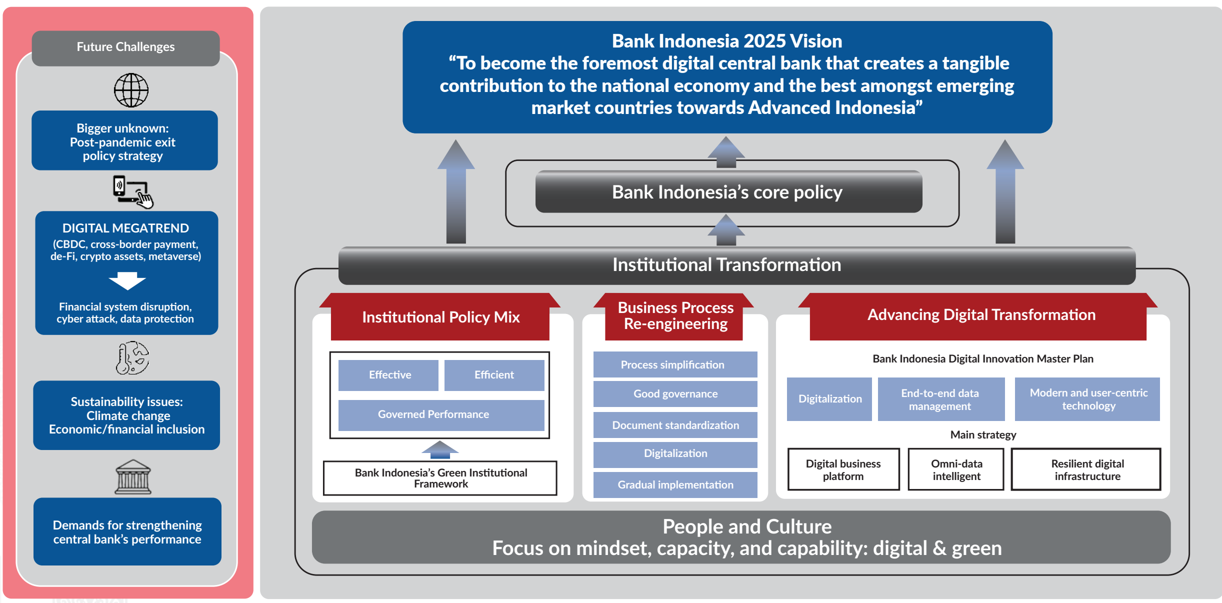
Comprehensive transformation of Bank Indonesia that has been undertaken since 2018 continues to be expanded, strengthened, and accelerated, both policy transformation and institutional transformation. This transformation is directed to realize Bank Indonesia's 2025 vision to become the foremost digital central bank that creates a tangible contribution to the national economy and the best amongst emerging market countries towards Advanced Indonesia. In line with the rapidly changing strategic environment, Bank Indonesia continues to adapt the policy and institutional transformation as outlined in the Strategic Business Plan 2025, which includes responding to rapid digitalization and the impact of climate change on the implementation of public duties by Bank Indonesia. Policy transformation in 2022 includes strengthening the Main Policy Mix Framework that integrates three key policies, namely monetary, macroprudential and payment system policies, with supporting policies including regional economic policy, international policy, central banking service, data and information systems, and organizational and governance. The Main Policy Mix Framework is oriented towards achieving Rupiah stability, maintaining payment system stability, and contributing to financial system stability, in order to support sustainable economic growth. The Main Policy Mix Framework is also synergized with national policies, namely: (i) accelerating real sector and financial sector transformation; (ii) synergy between monetary, fiscal, macroprudential and microprudential stimuli; (iii) economic and financial digitalization; and (iv) green economy and finance development. In addition, we have accelerated payment system transformation through Indonesia Payment System Blueprint (BSPI) 2025 implementation, including initiatives to develop the Digital Rupiah as Central Bank Digital Currency (CBDC) in Indonesia moving forward. In this regard, Bank Indonesia initiated the "Garuda Project" which explores the Digital Rupiah design through the preparation of a White Paper. We will provide further explanation regarding the Digital Rupiah in the chapter on the direction of the Bank Indonesia policy mix in 2023. In addition, the money market deepening transformation will also continue through implementation of the Money Market Deepening Blueprint (BPPU) 2025 in order to create a modern and advanced money market. Synergy and coordination with the Government continues to be strengthened, both through fiscal and monetary policy synergy to manage the economy in the near term, while accelerating structural reforms to strengthen the structure of the Indonesian economy. Synergy between Bank Indonesia and other policymakers in the Financial System Stability Committee (KSSK) is constantly strengthened to maintain the stability of the financial system and foster business financing to support the national economic recovery after the Covid-19 pandemic. In addition, synergy and coordination with the Government, the KSSK as well as the banking sector and payment system industry will be expanded to accelerate financial market deepening and national integration of the digital economy and finance.

Institutional transformation continues to be strengthened to support the implementation of

key policies and to realize the Bank Indonesia's 2025 vision. Institutional transformation is focused on three strategic areas (Figure 13). *First*, strengthening the Institutional Policy Mix Framework (BKK) based on effective, efficient and managed (2EG) performance, which began in 2021 to support the achievement and credible implementation of Bank Indonesia's mandate. The BKK framework is also strengthened by Bank Indonesia's Green Institutional Framework, which is the tangible manifestation of Bank Indonesia's role in implementing environmentally friendly policies in the execution of Bank Indonesia's public duties and functions (lead by example). The development of a Green Institutional Framework focuses on four areas, namely: (i) strategic management and governance to ensure the implementation of green initiatives that are more comprehensive and integrated with the overall strategy and governance in various areas and functions of Bank Indonesia; (ii) internal finance, which includes Bank Indonesia internal financial management in line with green finance principles; (iii) facilities and infrastructure to ensure the gradual transition of physical assets and information system assets, including the procurement process, to be more in line with green principles; and (iv) human resources, with the main target of instilling a green mindset in competent and capable human resources at Bank Indonesia.

Second, digital-based business process re-engineering (BPR) in order to create an organization with simpler, concise and standardized business processes and work processes, supported by digital technology, while still meeting governance aspects. BPR is carried out through the alignment of actors, processes, and technology to support the implementation of a more efficient Bank Indonesia business process with the *"One Input, One Process, Multi Purposes"* approach. Strengthening is carried out based on five main principles, namely: (i) process simplification; (ii) maintaining good governance; (iii) document standardization; (iv) digitalization; and (v) phased implementation. In the initial stage, Bank Indonesia implemented BPR for the policy formulation and decision-making processes. The decision-making process was simplified while maintaining the effectiveness and quality of the results. Governance is maintained through clarity of decision-making responsibilities and jurisdiction, as well as ensuring clear checks and balances in the decision-making process. The standardization of documents is carried out by taking into account the need for governance of decision-making and

Figure 13. Bank Indonesia Institutional Transformation



Source: Bank Indonesia

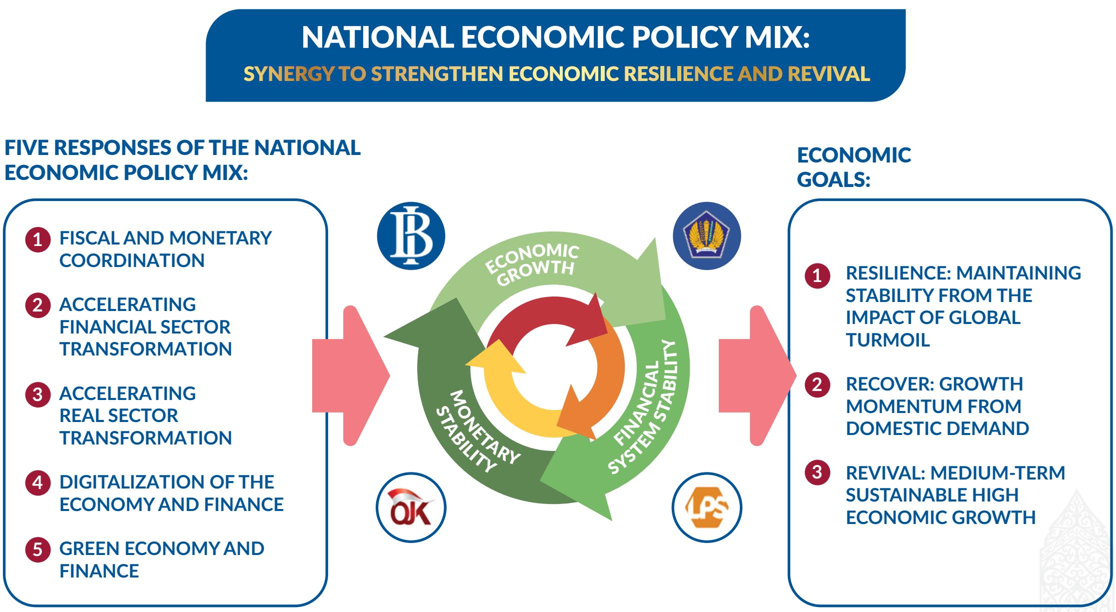
communication processes in policy formulation. The decision-making process is also supported by the Digital Workplace Platform (DWP), which was developed as an end-to-end super app, enabling work collaboration on a seamlessly integrated platform. Digital-based BPR is implemented in stages and will continue to be expanded to create an organization with streamlined business processes and agile work processes and in line with the needs of the digital era.

Third, **strengthening digital innovation through the implementation of the Bank Indonesia Digital Innovation Master Plan (RIVIBI) 2025**. In this context, Bank Indonesia is pursuing a strategy that focuses on developing data centers and BPR-based digitalization to support recent policies. Strengthening is also carried out in the areas of technology and security with three strategic areas, namely digitalization, end-to-end data management, as well as modern and user-centric technology. This is achieved through three main strategies, including (i) digital business platform that supports policies and institutions, (ii) omni-data intelligence, and (iii) resilient digital infrastructure. The development of various strategic areas to transform the institution is also supported by strengthening the transformation of human resources to create high-performing human resources with a digital mindset, capacity, and capabilities.

National Economic Policy Mix Synergy and Innovation Moving Forward: Strengthening Resilience, Fostering National Economic Revival

National economic policy mix synergy and innovation must be enhanced further to strengthen resilience, recovery momentum and the national economic revival. The national economic policy mix covers five salient aspects, namely: (i) fiscal and monetary coordination; (ii) acceleration of the financial sector transformation; (iii) acceleration of the real sector transformation; (iv) digitalization of the economy and finance; and (v) green economy and finance (Figure 14). To strengthen resilience against the impact of global turmoil, close coordination between fiscal policy and monetary policy must be enhanced further as a shock absorber to maintain macroeconomic stability, both internally (inflation returns to the 3±1% target, fiscal deficit returns to below 3% of GDP) and externally (stable Rupiah exchange rate,

Figure 14. National Economic Policy Mix Synergy and Innovation



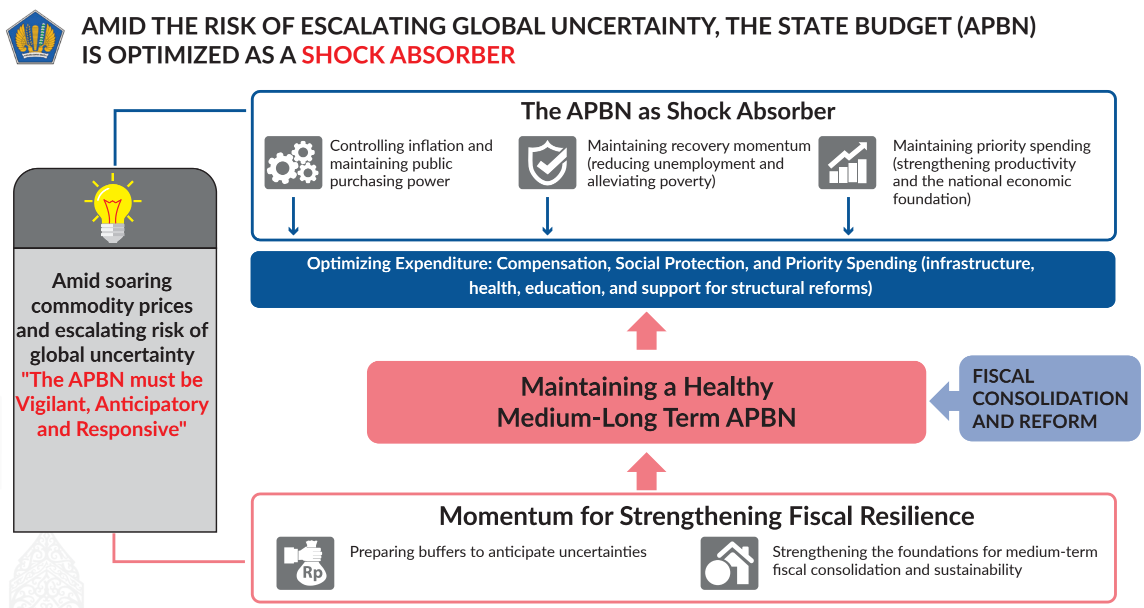
Source: Bank Indonesia

attractive SBN yields, and BOP balance or surplus). Strengthening policy coordination between the Ministry of Finance, Bank Indonesia, OJK and LPS within the Financial System Stability Committee (KSSK) framework is also increasingly required to ensure the resilience of financial institutions, both individually and system-wide, in the face of arising global and domestic economic shocks. The coordination between fiscal policy, through the allocation of State Budget expenditures to nurture consumption and investment, and monetary policy, through macroprudential easing, digitalization of payment system, money market deepening, as well as financial-economic inclusion, must be enhanced further to continuously promote the momentum of national economic recovery.

Moving forward, fiscal policy aims to strengthen resilience and national economic recovery momentum, while consistently pursuing the outlined consolidation and reforms. Amid soaring commodity prices and the risk of escalating global uncertainty, fiscal policy in 2023 must be vigilant, anticipatory, and responsive (Scheme 2). For this reason, the 2023 state budget (APBN) was formulated as a shock absorber to dampen the impact of global turmoil and to prevent macroeconomic instability or disruption to the ongoing national economic recovery process. This is achieved through budget allocations aimed at: (i) managing inflation and maintaining people's purchasing power; (ii) maintaining recovery momentum (reducing unemployment and alleviating poverty); and (iii) maintaining priority spending (strengthening productivity and the foundations of the national economy). At the same time, consolidation and fiscal reform will be strengthened to maintain the soundness of the medium-long term of the APBN by: (i) setting up buffers to anticipate uncertainty; and (ii) strengthening the foundations for medium-term fiscal consolidation and sustainability.

Based on the direction of fiscal policy, the APBN architecture in 2023 has been formulated to strengthen resilience and to generate national economic recovery optimism, while remaining vigilant to the impact of global turmoil. The APBN 2023 was prepared based on several macroeconomic assumptions, namely economic growth of 5.3%, inflation of 3.6%, average 10-year SBN yield of 7.9%, average exchange rate of Rp14,800 per US dollar, and oil price of USD90 per

Scheme 2. Fiscal Policy Direction in 2023: Shock Absorber and Consolidation



Source: Minister of Finance, Keynote Address, National Seminar and Conference on the Acceleration of Economic Recovery and Strengthening Sustainable Development", Jakarta, 19 October 2022

Figure 15. The 2023 State Budget: Optimistic and Vigilant

POSTURE OF THE 2023 APBN: "RAISING OPTIMISM BUT REMAINING VIGILANT"

The APBN deficit is back to below 3% of GDP and for the first time **the tax target is above Rp2,000 trillion** and **state expenditure is above Rp3,000 trillion**

Development Goals and Indicators	
Unemployment rate (%)	5.3 - 6.0
Poverty (%)	7.5 - 8.5
Gini Ratio (index)	0.375 - 0.378
Human Development Index (index)	73.31 - 73.49
Farmers' Terms of Trade (index)	105 - 107
Fishermen's exchange rate (index)	107 - 108

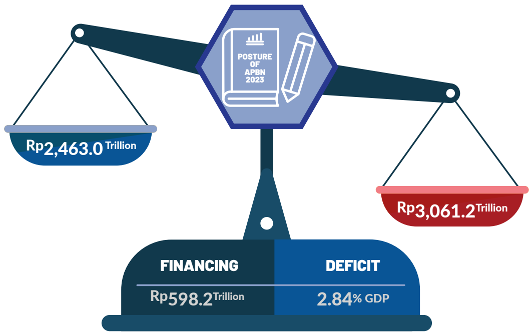
Basic Assumptions of Macroeconomics	
Economic Growth (%)	5.3
Inflation (%)	3.6
Exchange Rate (IDR/USD)	14,800
10-year SBN Yield (%)	7.9
Oil Price (USD/barrel)	90
Oil Lifting (thousand barrel/day)	660
Gas Lifting (thousand of barrel of oil equivalent/day)	1,100

State Revenue

Optimizing State Revenue by taking into account the risk of moderating commodity prices

Tax Revenue
Rp2,021.2 Trillion

Non-Tax Revenue
Rp441.4 Trillion



State Expenditure

Supports increased productivity and acts as a shock absorber in facing uncertainty

Central Government Expenditure
Rp2.246,5 Trillion

Transfer to Region
Rp814,7 Trillion

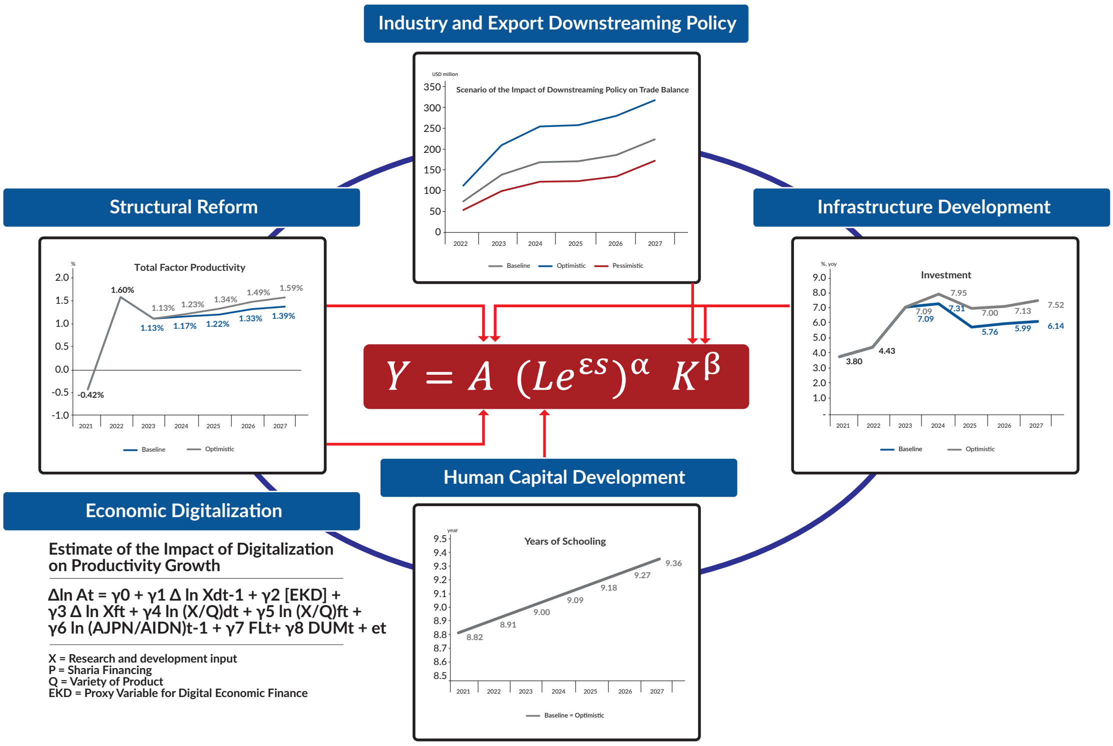
"More efficient debt financing in line with reduced deficits and utilization of Remaining Budget (SAL)"

Source: Minister of Finance, Keynote Address, National Seminar and Conference on the Acceleration of Economic Recovery and Strengthening Sustainable Development", Jakarta, 19 October 2022

barrel (Figure 15). Fiscal consolidation is carried out with the APBN deficit of 2.84% of GDP as a form of commitment to normalizing policies after three years of the Covid-19 pandemic, during which time the deficit was allowed to be above 3% of GDP. The need for debt financing also decreased to Rp696.3 trillion in line with the reduction in the fiscal deficit and utilization of the Remaining Budget (SAL) from 2022, which partly stems from the purchase of SBN in the primary market by Bank Indonesia in accordance with the third Joint Decree between the Finance Minister and the Governor of Bank Indonesia in pursuant to Law No. 2 of 2020. As a shock absorber against the soaring world energy and food prices, energy subsidies and compensation in the 2023 APBN are allocated to the amount of Rp339.6 trillion, thus the Government is expected no longer needs to adjust the domestic energy prices, which helps to control inflation and to maintain people's purchasing power. The energy subsidy is also part of the social protection budget allocation of Rp479.1 trillion. To manage inflation, especially from food prices, the Government has allocated a budget for food security in the 2023 APBN of Rp95.0 trillion to ensure and increase food availability, access, and quality. In addition, the Government has also allocated a budget to support the economic transformation of education (Rp612.2 trillion), infrastructure (Rp392.0 trillion), and health (Rp169.1 trillion).

With the continuation of fiscal subsidies in the 2023 APBN to absorb high global energy and food prices, inflation will be more controlled, therefore the normalization of Bank Indonesia's monetary policy does not have to be too tight. Bank Indonesia policy mix in 2023 will be oriented towards maintaining stability and accelerating the national economic recovery. The focus of monetary policy normalization is to reduce inflation from the impact of fuel price adjustments in 2022 and to stabilize the rupiah from the impact of the strong US dollar due to rising global interest rates. To that end, Bank Indonesia will measurably continue its front loaded, pre-emptive, and forward looking interest rate policy to lower inflation expectations and to ensure that core inflation returns to the 3±1% target corridor earlier in the first half of 2023. Given that the inflation is under control, people's purchasing power can be maintained to boost consumption and

Scheme 3. Economic Capacity Building Policy: Endogenous Growth Model



Source: Bank Indonesia

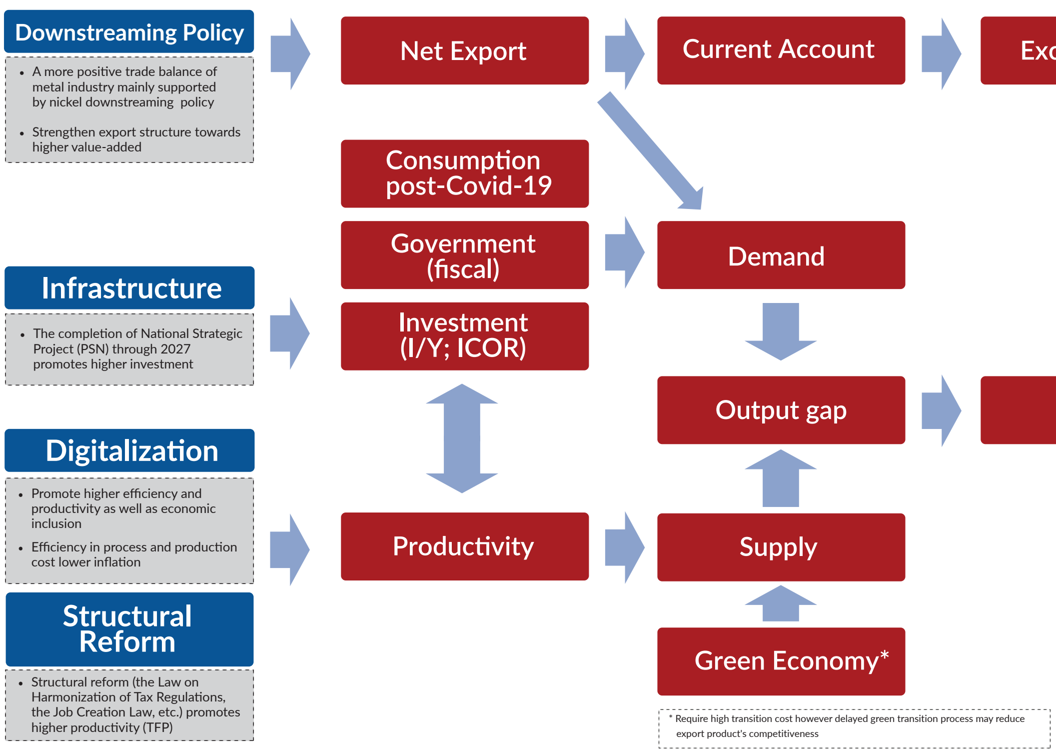
thus stimulate economic growth. Bank Indonesia will continue to pursue Rupiah stabilization policy as an integral part of controlling inflation and supporting macroeconomic and financial system stability as prerequisites for national economic recovery. Meanwhile, Bank Indonesia policy mix instruments, namely macroprudential policy, payment system digitalization, money market deepening, as well as economic and financial inclusion are still aimed at supporting economic growth. The direction of the Bank Indonesia policy mix in 2023 will be explained in a more detail in the next section.

While fiscal policy and monetary policy are focused on strengthening resilience and economic recovery momentum against the backdrop of global turmoil, real sector transformation policies need to be improved to further encourage the revival of the national economy towards Advanced Indonesia. According to the endogenous growth model, transformation policy to increase economic capacity encompasses five mutually supporting aspects that need to be integrated, namely: infrastructure development, downstreaming policies, structural reform, economic digitalization, and human resources development (Scheme 3). The development of physical and digital connectivity infrastructure will increase economic capacity and growth, both in terms of increasing capital (investment growth) and productivity (efficiency and competitiveness). Downstream processing of natural resources to various derivative industries increases economic supply capacity (aggregate supply) by increasing capital and nurturing growth on the demand side (aggregate demand) along with increasing value added in exports. Human resources development must be continued, not only through formal education but also vocational training as well as research and technology development that increases the number of workers and the quality of their productivity. Meanwhile, structural reforms to facilitate investment and business, such as implementation of the Job Creation Law, will boost economic capacity through greater efficiency and productivity. Likewise, digitalization of the economy and finance will increase the efficiency and competitiveness of the national economy, particularly the retail transaction segment as well as MSMEs and local economies. The success of the real sector transformation policy is largely determined by the ability to integrate these five important aspects to mutually strengthen the sources of capacity building for the national economy.

Downstreaming policy, infrastructure development, human resources development and digitalization supported by structural reforms to increase economic capacity will underpin stability and achieve high growth in the medium term. As explained above, aggregate supply will increase so that potential output capacity will be greater in line with the increase in the amount and productivity of capital and labor due to the real sector transformation policy (Scheme 4). On the demand side, the downstreaming policies will encourage a greater increase in exports with value added generated, in addition to an increase in foreign direct investment (FDI) as well as investment for infrastructure development. Overall, the increase in potential output capacity will be greater in the medium term, thus prompting higher growth accompanied by maintained stability. External resilience will be stronger with an increase in exports that reinforce the current account surplus and an increase in FDI, which supports the capital and financial account surplus. Balance of Payment performance will be stronger and, therefore, have positive implications to Rupiah stability. At the same time, an increase in potential output capacity will improve the output gap to meet rising demand, thereby supporting price stability, and controlling inflation at a declining and low rate. The prospect of Indonesian economy with high economic growth and maintained macroeconomic stability as described in the previous section, illustrates the positive results of the economic transformation policy.

Infrastructure development will increase economic capacity and growth in terms of higher capital and productivity. Therefore, infrastructure development

Scheme 4. Capacity Building and Medium-Term Economic Revival: High Growth, Maintained Stability



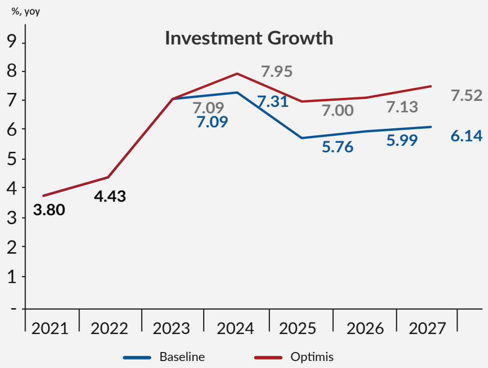
Source: Bank Indonesia

Figure 16. National Strategic Projects (PSN) and Investment Growth

Projection of PSN Infrastructure Completion Investment

IDR trillion

Period	2020	2021	2022	2023	2024	2025	2026	2027
Projection September 2022	468.46	713.40	823.60	557.81	381.37	162.86	49.78	14.32
Projection January 2022	458.13	717.28	884.34	554.60	311.88	132.75	49.78	14.32
Projection December 2021	472.63	717.20	863.97	529.48	303.06	132.96	50.03	13.60

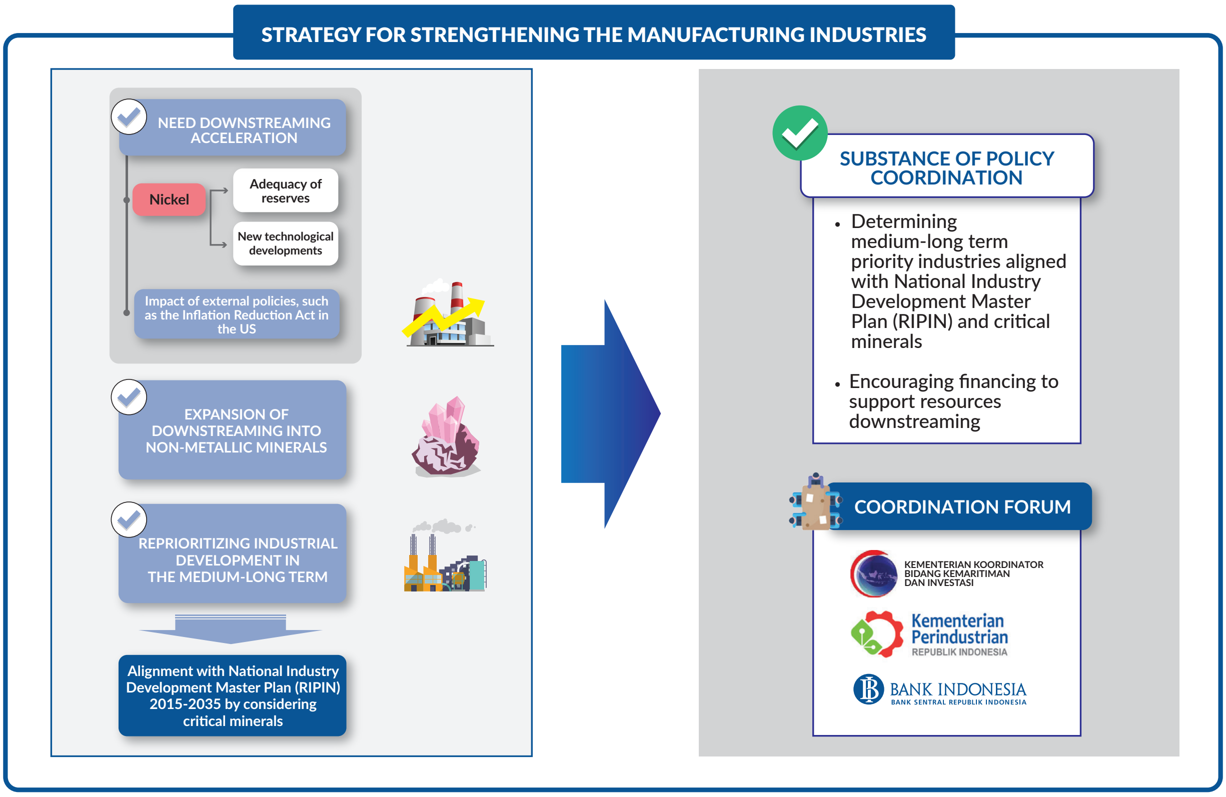


Source: KPPIP, Bank Indonesia (calculated)

is oriented towards strengthening national supply chains and integration with multipolar global supply chains in accordance with Indonesia's strategic trade and investment partners. Moreover, the development of infrastructure connectivity also needs to support the downstreaming policies of industry and exports of natural resources, dominated by the mining industry in Eastern Indonesia as well as the manufacturing industry and its various subsectors in the Java region, thereby further strengthening national supply chains. Likewise, the development of infrastructure connectivity to support an integrated tourism development in 10 priority tourism destinations needs to be continued. The above strategic direction of infrastructure connectivity development policies serves as a key consideration in the implementation of National Strategic Projects (PSN) moving forward, as well as the basis for foreign trade and investment policies with strategic partner countries, both in supporting the development of natural resources downstreaming and tourism. PSN projections based on data as of September 2022 indicate that the realization of infrastructure investment in 2022 is lower than was planned in 2021, but will increase in 2023-2024 before retreating in 2025. Based on PSN projections, investment growth (increase in capital investment) in supporting economic growth is projected to increase to almost 8% by 2024, compared to around 7.3% without infrastructure development (Figure 16). The positive impact of infrastructure investment on higher economic productivity remains increasing although the PSN investment value returns to normal. The investment growth will potentially reach 7.5% by 2027 compared to 6.1% without infrastructure investment. This projection shows the importance of developing connectivity infrastructure to achieve high economic growth through increased capital and productivity according to the Endogenous Growth model as described above.

Downstreaming policies for industrial development and manufacturing exports based on natural resources must be expanded and improved to support high economic growth. The accomplishment

Scheme 5. Natural Resources Downstreaming Policy



Source: Bank Indonesia

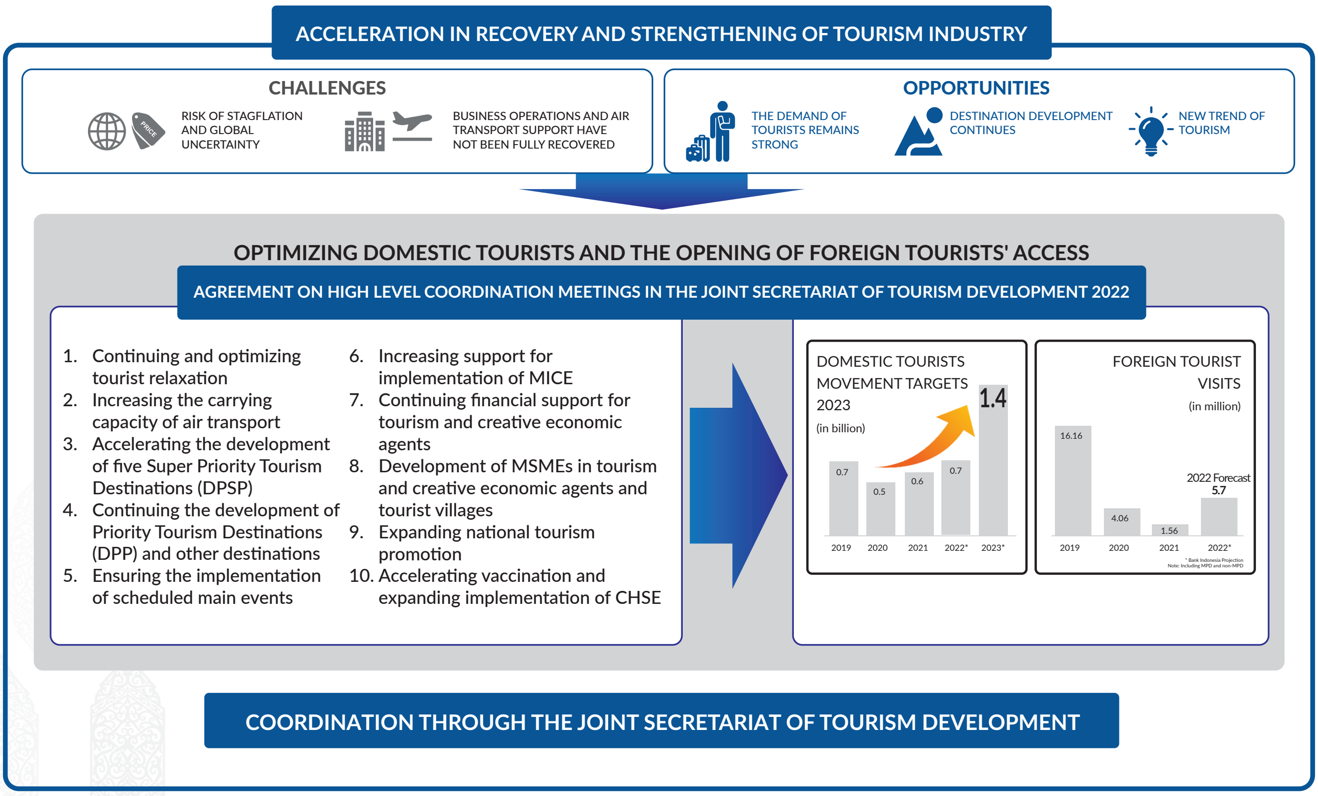
of nickel downstreaming into lithium batteries and the electric automotive industry, as well as its various derivative products has been proven to be able to promote higher economic growth and to strengthen external resilience, as described above by the Endogenous Growth Model approach. The higher export value added from nickel processing has stimulated growth from aggregate demand side and bolstered a healthier current account. Furthermore, the increased capital in the mining and industrial sectors generated by nickel downstreaming has expanded the potential output capacity from the aggregate supply side and supported sustainable growth. Therefore, the downstreaming of natural resources and their derivative industries should be accelerated to further increase the potential output capacity and economic growth, while taking into account the resilience of natural resources reserves, the development of new technologies, as well as the transition to green economy and sustainable finance. Accordingly, concrete measures need to be implemented further to expand the downstreaming policies to other mineral commodities, metals and nonmetals, including a reprioritization of industrial development based on the downstreaming of these natural resources in the medium-long term (Scheme 5). The strategy and downstreaming policy of natural resource-based industries moving forward requires adjustments to the 2015-2035 National Industrial Development Master Plan (RIPIN). In its implementation, coordination between the Coordinating Ministry for Maritime and Investment Affairs, the Ministry of Industry, the Ministry of Finance and Bank Indonesia needs to be strengthened moving forward. The goal of inter-ministerial/institutional policy coordination is to strengthen joint measures, among others, on determining the alignment of the medium-long-term priority industries with the revised RIPIN, promoting financing to support downstreaming, as well as formulating and implementing the transition to green economy and sustainable finance.

The tourism sector, which was severely impacted by the Covid-19 pandemic, must be developed moving forward to support the recovery and revival

of the national economy. The relevant policies need to remain focused on the further development of 10 priority tourism destinations, particularly the 5 super priority tourism destinations (DPSP), while not ruling out the possibility of developing other destinations. In line with increasing public mobility after the Covid-19 pandemic, the Government is targeting 1.4 billion trips by domestic travelers in 2023 (Scheme 6). For this reason, the strategy of accelerating recovery and strengthening tourism can be continued and strengthened through the 3A (Attractions, Access, Amenities) and 2P (Player, Promotion) approaches. Coordination under the auspices of the Joint Secretariat for the Acceleration of Tourism Development (*Sekber Pariwisata*) between the Coordinating Ministry for Maritime and Investment Affairs, the Ministry of Tourism and Creative Economy, Bank Indonesia, as well as relevant ministries/institutions and strategic partners has produced agreement on joint priority measures that include: relaxation of tourist visas/entry requirements, increasing the carrying capacity of air transport, accelerating the development of five DPSPs, securing major national and international events, implementing MICE activities (meetings, incentives, conventions, and exhibitions), financing support for tourism and creative economy players, developing MSMEs for tourism and tourism villages, expanding Indonesian tourism promotions, accompanied by an accelerated vaccination program and expansion of the application of CHSE (cleanliness, health, safety, and environmental sustainability) at all destinations. Promotional programs, both domestically through the Proud Travelling #DiIndonesiaAja (BWI) movement and other programs, as well as targeted international promotions, need to be improved further. Bank Indonesia will continue to support the success of various targeted tourism development programs abroad.

Overall, along with national economic policy mix synergy and innovation, the outlook of the Indonesian economy will exhibit resiliency, recovery and revival. Facing the global turmoil, fiscal-monetary close coordination supported by financial system stability policies, will be further strengthened to support

Scheme 6. Tourism Development Policy



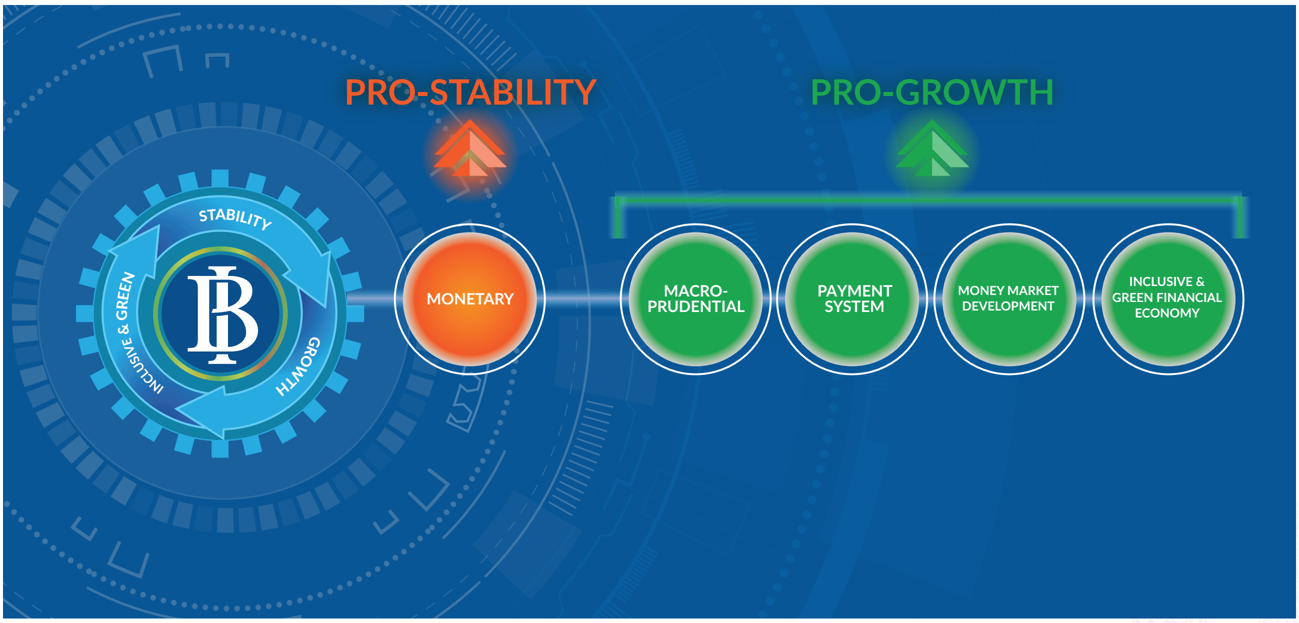
Source: Bank Indonesia

resilience and economic recovery in 2023-2024. Indonesia's economic outlook is promising with high and sustainable growth in the medium term through economic transformation policies, including infrastructure development, downstreaming policies, structural reform, digitalization and human resources development. Growth will continue to accelerate, with macroeconomic and financial system stability maintained.

Bank Indonesia Policy Mix Direction in 2023: Maintaining Stability, Accelerating Economic Recovery

Bank Indonesia policy mix in 2023 will still be directed towards strengthening economic resilience, recovery and revival in close synergy with national economic policy. The direction of the policy mix is intended to simultaneously counteract the effects of global turmoil, both the risk of economic recession and high inflation, policy rate hikes by the Fed and other central banks, depreciatory pressures on the exchange rate due to a very strong US dollar, as well as persistently high global financial market uncertainty. To that end, Bank Indonesia monetary policy in 2023 will still be focused on maintaining stability ("pro-stability"), particularly the achievement of the inflation target and Rupiah stability, as well as supporting macroeconomic and financial system stability (Figure 17). Meanwhile, the four other key of Bank Indonesia policies will continue to be directed and as part of a joint effort to accelerate the national economic recovery ("pro-growth"). Accommodative macroprudential policy will continue to encourage bank credit and financing to priority sectors and MSMEs, in order to accelerate national economic recovery, while maintaining financial system stability and developing a green and inclusive economic and finance. Payment system digitalization based on the Indonesia Payment System Blueprint (BSPI) 2025 will accelerate national integration of the digital economy and finance, cross-border payment system cooperation, and development of the Digital Rupiah. Money market and foreign exchange market deepening will be accelerated in accordance with the Money Market Development Blueprint (BPPU) 2025 to strengthen policy transmission effectiveness, develop modern and world-class money market infrastructure as well as financial instruments, including sustainable finance. Financial and economic inclusion programs targeting MSMEs will be expanded along with sharia finance, including through digitalization, and unlocking domestic and

Figure 17. Bank Indonesia Policy Mix Direction 2023



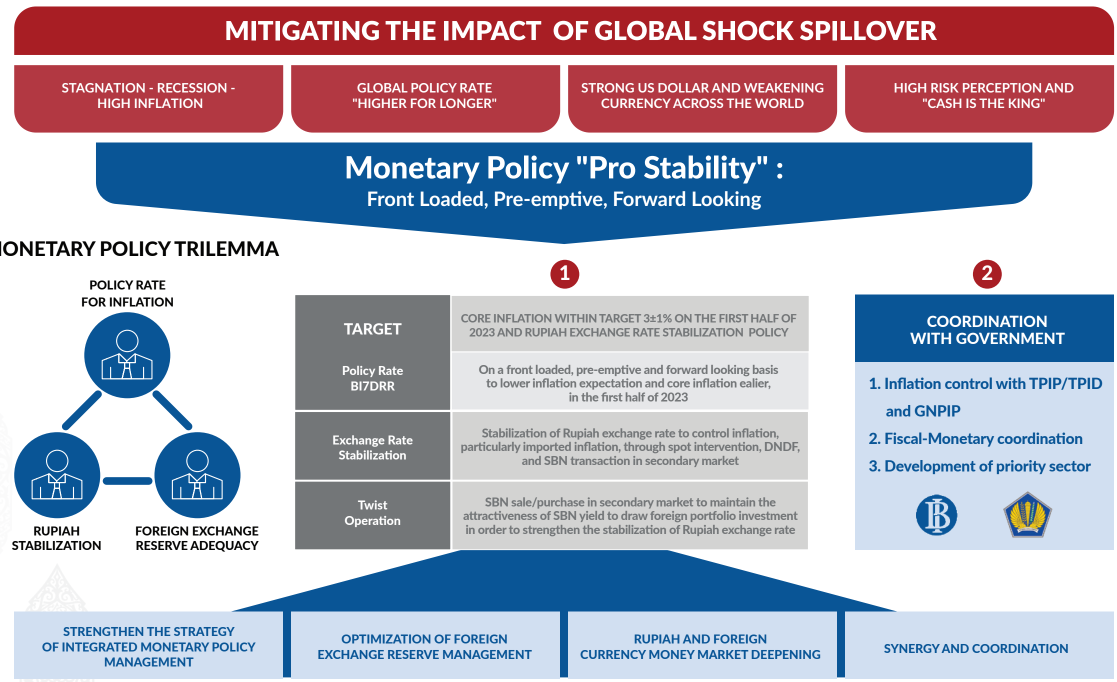
Source: Bank Indonesia

export markets. Bank Indonesia will also continue to strengthen policy synergy and coordination with the Government and the Financial System Stability Committee (KSSK), as well as collaborate with the financial industry, corporate sector, and industry to strengthen national economic resilience, recovery, and revival in the medium-long term towards Advanced Indonesia.

Monetary Policy Direction

Bank Indonesia monetary policy in 2023 will focus on stabilizing the Rupiah and managing inflation towards the target corridor, as part of the mitigation measures against the impact of global spillovers. Global turmoil has, and will continue to have, an impact on national economic performance, including inflation, exchange rates, and foreign capital flows. Soaring global energy and food prices intensify inflation pressures and undermine the ability to stimulate domestic economic growth in various countries. At the same time, the Fed's policy rate hikes and the strong US dollar exert depreciatory pressures on various currencies, including the Rupiah. Pressures on exchange rates as well as monetary, fiscal, and financial system stability have intensified with portfolio investment outflows, particularly from government securities (SBN), due to the high perceived risk and "cash is king" attitude of global investors. To mitigate the monetary policy trilemma against the impact of global turmoil, Bank Indonesia will continue to optimize three monetary policy instruments, namely interest rate policy, Rupiah stabilization and strengthening foreign exchange reserves (Scheme 7). Interest rate policy is directed towards lowering core inflation back to target earlier in close synergy with the Government to control inflationary pressures on administered prices and volatile food. Rupiah stabilization policy is critical to control the impact of high global energy and food prices on domestic inflation (imported inflation), as well as to support maintaining macroeconomic and financial system stability for the national economic recovery. Simultaneously, Bank Indonesia will continue to buy/sell SBN in the secondary market to maintain yields attractiveness (twist operation), thus increasing foreign portfolio investment inflows, which will stabilize the Rupiah and ensure adequate foreign exchange reserves.

Scheme 7. Bank Indonesia Monetary Policy Direction in 2023



Source: Bank Indonesia

Bank Indonesia will continue to implement the BI7DRR interest rate policy on a front loaded, pre-emptive and forward looking basis to rein in overshooting inflation expectations and further reduce core inflation to the 3±1% target range earlier in the first semester of 2023. We are grateful for close fiscal-monetary policy coordination to mitigate the impact of high global energy and food prices on inflation in the country. In 2023, the Government will continue to provide energy subsidies and social assistance program (bansos) to low-income earners, thus ensuring milder CPI inflationary pressures from administered prices. Close coordination between the Government (central and regional) and Bank Indonesia to control volatile food inflation through the Central and Regional Inflation Control Teams (TPIP-TPID), as well as the National Movement for Controlling Food Inflation (GNPIP) will also be enhanced further. Simultaneously, Bank Indonesia will continue to take interest rate policy and Rupiah stabilization measures to reduce core inflation, which increased recently due to the second-round effect of fuel price adjustments in September 2022. Consistent with the direction of monetary policy, Bank Indonesia has raised the BI7DRR rate by 175bps from August-November 2022 to 5.25% as a front loaded, pre-emptive and forward looking measure to rein in overshooting inflation expectations and to ensure core inflation returns to the 3±1% target earlier in the first semester of 2023. Going forward, Bank Indonesia will consistently institute a well-calibrated, well-planned, and well-communicated policy response to ensure the core inflation target is achieved earlier in the first semester of 2023. The magnitude and timing of the policy rate response will be based on the latest developments, particularly in terms of inflation expectations and core inflation against the initial forecast and targets that need to be achieved (data dependent). Further developments in the global economy, particularly the impact on Rupiah stability and the attractiveness of SBN yields, as well as the domestic economy, specifically economic growth and bank lending, will also be considered. In this regard, Bank Indonesia believes that the impact of the BI7DRR rate hike on bank lending rates and medium-long-term SBN yields will not be too large, although interbank and deposit rates and short-term SBN yields will adjust. This considering that the current loose liquidity conditions in the banking industry and the economy will be maintained by Bank Indonesia. Thus, the hikes in the policy rate to control inflation and maintain Rupiah stability will not hampering the ability of banks to channel credit to the business sectors nor their ability to purchase SBN for fiscal financing, while continuing to support monetary and financial system stability and national economic growth.

Bank Indonesia will continue to pursue Rupiah stabilization to mitigate the impact of global spillover on inflation and maintaining macroeconomic and financial system stability to support the national economic recovery. As stated earlier, the Fed's aggressive pace of rate hikes and the strong US dollar has exerted intense pressures on various global currencies, including the Rupiah. Rupiah stability is critical to control the impact of imported inflation from high global energy and food prices on domestic inflation. Rupiah stability is also important to support fiscal performance, especially in terms of maintaining SBN yields attractiveness for state budget (APBN) financing needs. In addition, Rupiah stability is also critical for financial system stability so that the currency risks on banking and corporate balance sheets are mitigated, while maintaining consumer and business confidence. Bank Indonesia expects currency pressures to ease before and after the FFR hikes peak in the first quarter of 2023. Subsequently, the Rupiah will appreciate and stabilize in line with Indonesia's solid economic fundamentals, particularly with inflation forecasted to decline towards the target, positive current account, attractiveness of SBN yields, as well as promising national economic prospect. To that end, Bank Indonesia will continue to monitor and intervene in the market, while taking necessary Rupiah stabilization measures, through triple intervention in the spot market, DNDF, and through the buy/sell of SBN in the secondary market, to maintain Rupiah stability in line with its fundamentals and market mechanisms. The monetary operations strategy will also be strengthened to support the effectiveness of transmission mechanism of BI7DRR hike and Rupiah stabilization measures. Adequacy of the foreign exchange reserves, which stood at USD130.2 billion, will be maintained and bolstered by optimizing foreign exchange management and increasing the supply of foreign exchange in the market from the repatriation of foreign exchange proceeds from exports (DHE) of natural resources. Close coordination between Bank Indonesia and the Ministry of Finance will be strengthened to maintain Rupiah stability and SBN market stability in terms of managing the adjustments to global developments.

Bank Indonesia will continue to optimize the buy/sell of SBN in the secondary market to maintain the attractiveness of SBN yields for foreign portfolio investors, thus strengthening Rupiah stability. As noted, aggressive FFR increase to address soaring inflation in the US have edged up US Treasury yields and created a very strong US dollar. Coupled with perceived high risk and the "cash is the king" attitude of global investors, have triggered global financial turmoil and thus put depreciatory pressures on currencies, including the Rupiah, along with large outflows of portfolio investment from EMEs, including Indonesia, especially from SBN. To that end, Bank Indonesia is closely working with the Ministry of Finance to take joint measures to maintain the attractiveness of SBN yields and stabilize the Rupiah. This prompted Bank Indonesia to initiate "twist operation" by utilizing SBN holdings totaling approximately Rp1,300 trillion, by buying/selling SBN in the secondary market to maintain the attractiveness of SBN yields for inflows of foreign portfolio investment (Scheme 8). Through twist operation, SBN yields rose in line with the BI7DRR rate and boosted portfolio investment inflows, thereby supporting Rupiah stabilization without compromising the Government's ability to issue longer-term SBN for fiscal financing. Meanwhile, the purchase of long-term SBN will spur a bump in SBN yields, which will remain attractive but not excessive, thereby attracting portfolio investment inflows, stabilizing the Rupiah, and allowing the issuance of long-term SBN for fiscal financing in 2023. Meanwhile, the Ministry of Finance continues to issue SBN regularly in the primary market for the APBN financing according to market mechanisms. The APBN financing is also carried out through the issuance of global bonds and withdrawal of program loans from multilateral and regional institutions, with both strengthening foreign exchange reserves and the ability of Bank Indonesia to stabilize the Rupiah.

Policy coordination between Bank Indonesia and the Government is also continuously strengthened

Scheme 8. Monetary Policy Direction of Twist Operation in 2023

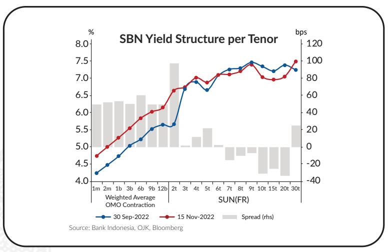
$$R_t = R_t^* + E(S_t) + \rho_t$$

R_t = SBN Yield tenor t

R_t^* = US Treasury Yield tenor t

$E(S_t)$ = Rupiah depreciation expectations

ρ_t = Indonesian risk premium



BANK INDONESIA'S TWIST OPERATION

SHORT TERM SBN SALES

- INCREASE IN SBN YIELD IN LINE WITH BI7DRR,
- PORTFOLIO INVESTMENT INFLOWS,
- RUPIAH STABILIZATION
- NO IMPACT ON FISCAL FINANCING

LONG TERM SBN BUY

- MILD INCREASE IN SBN YIELD
- PORTFOLIO INVESTMENT INFLOWS,
- RUPIAH STABILIZATION
- MAINTAINED FISCAL FINANCING

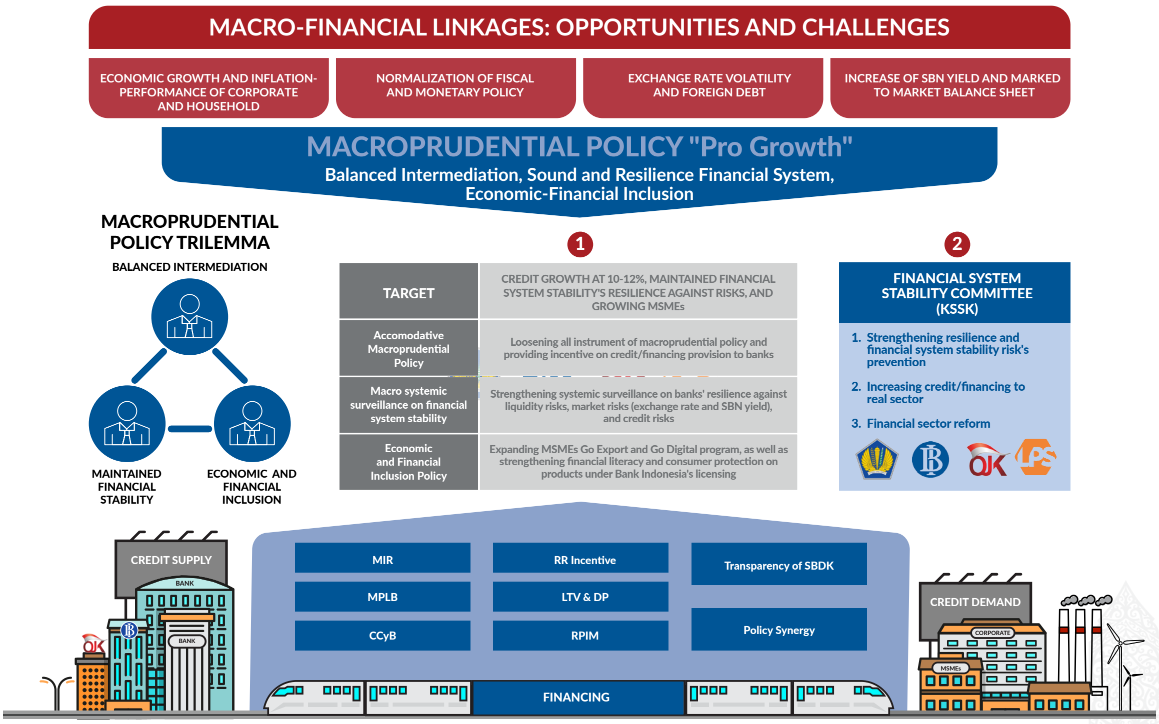
Source: Bank Indonesia

to control inflation and revive priority sectors for national economic recovery. As stated, Bank Indonesia will continue to direct the policy rate towards reducing core inflation back to the 3±1% target earlier in the first semester of 2023, while Rupiah exchange rate stabilization policy to control imported inflation. Meanwhile, the Government has allocated budget for energy subsidies and social assistance program so as inflationary pressures on administered prices remain manageable. To control volatile food inflation, Bank Indonesia will continue to work closely with the Government through TPIP-TPID and GNPIP in various regions. Such synergy and coordination include food market operations, inter-regional cooperation, and urban farming movement. The Ministry of Finance even provides fiscal incentives for regional governments that are successful in controlling food inflation. With close synergy and coordination, Bank Indonesia believes that core inflation will return to the target of 3±1% earlier in the first semester of 2023, with CPI inflation following suit at the beginning of the second semester of 2023 after the base effect of fuel price adjustments in September 2022 fades. Meanwhile, coordination to bolster priority sectors is strengthened with the support of Bank Indonesia, both in assessing the latest developments and issues that occur at the central and regional levels, as well as providing policy recommendations, including the view from regional area through the Regional Economic and Financial Assessment (KEKDA) conducted by Bank Indonesia representative offices in various regions. Bank Indonesia will also strengthen coordination and support in the development and improvement of MSME, and the sharia economy and finance, both nationally and in various regions.

Macroprudential Policy Direction

Bank Indonesia will hold its accommodative macroprudential policy stance in 2023 to increase bank lending to support the national economic recovery, while maintaining financial system stability. The direction of macroprudential policy remains based on the optimality of three targets, namely balanced intermediation, maintained financial system stability, and economic and financial inclusion (Scheme 9). In this case, Indonesia's financial cycle has just begun in its upward phase following

Scheme 9. Macroprudential Policy Direction in 2023

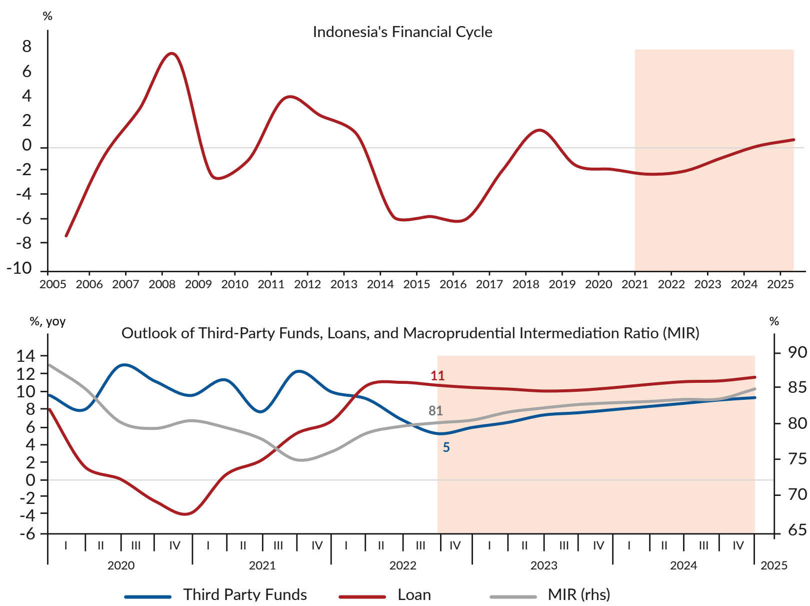


Source: Bank Indonesia

the economic cycle that began to recover in the second quarter of 2022. Based on the historical trends of both cycles, Bank Indonesia predicts that the economic and financial cycles will continue to increase until reaching "boom" period in 2024-2025 for the economic cycle and in 2025-2026 for the financial cycle. Therefore, accommodative macroprudential policy stance will be maintained in 2023 and until mid-2024 as a countercyclical instrument to increase financing when the financial cycle is picking up, and then tightened when the financial cycle is nearing its peak to avoid potential risk to financial system stability. The push to increase bank lending though macroprudential policies will also be directed to the MSME and the green economy, thus supporting the expansion of economic inclusion and sustainable finance. Nevertheless, a number of short-term risks from macro-financial linkages demand vigilance and, therefore, systemic surveillance must be strengthened to avoid creating vulnerabilities in the financial system. The strengthening of systemic surveillance should be carried out by stress-testing the financial sector individually and as the system against liquidity risk from normalizing fiscal and monetary policy, market risk from Rupiah volatility, increases in monetary policy rates and SBN yields, as well as credit risk due to the possibility of an economic slowdown before restructuring has ended.

The relaxation of all macroprudential policy instruments and the provision of incentives for banks is pursued with the target of lending/ financing to grow by around 10-12% in 2023 to support further economic recovery, as well as to promote sustainable economic and financial inclusion. In this case, Bank Indonesia will continue with accommodative macroprudential policy stance by maintaining the CCyB Ratio at 0%, flexibility in fulfilling the MPLB ratio of 6%, where all SBN owned could be repurchased to Bank Indonesia, and the LTV/FTV ratio of 100% for property loans and down payment requirements of 0% for automotive loans for banks that meet the low NPL/NPF criteria, which will remain in effect until the end of December 2023. Macroprudential policies to revive bank financing, such as the Macroprudential Intermediation Ratio (MIR) and interest rate transparency will also be continued and their effectiveness will even be strengthened with the macroprudential supervision of banks. Moreover, accommodative macroprudential policy in the form of reserves requirement (RR) incentives will also be expanded to stimulate intermediation to economic sectors as part of Financial System Stability Committee (KSSK) policy coordination in national economic recovery. The formulation and implementation of this macroprudential policy will be adjusted to the

Graph 25. Indonesia's Financial Cycle and Macroprudential Intermediation Ratio

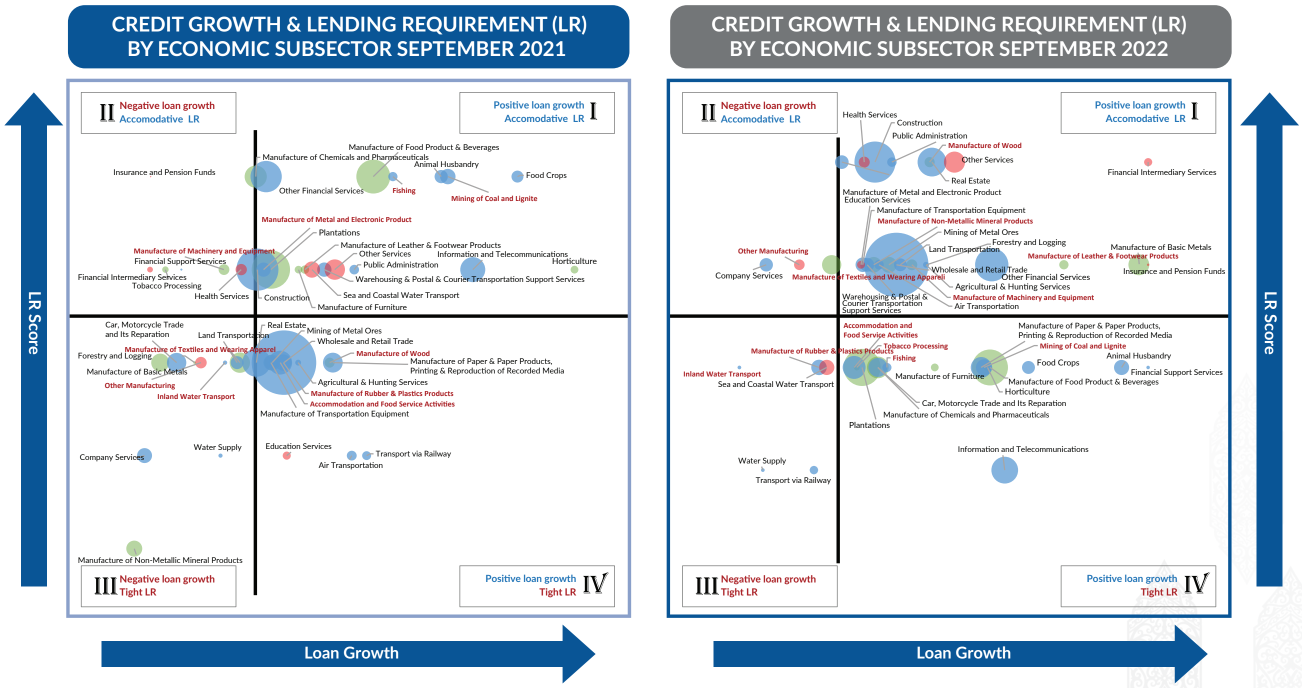


Source: Bank Indonesia, OJK

conditions of the priority sectors and the constraints faced by the bank in extending credit to these priority sectors. With the easing of macroprudential policy, Bank Indonesia is confident that Indonesia's financial cycle will continue to increase, and credit needs for optimal economic growth will be met, with MIR even predicted to reach 84% in 2024 (Graph 25). Meanwhile, to support financial and economic inclusion, especially MSMEs, the Macroprudential Inclusive Financing Ratio (RPIM) policy will continue to improve in terms of implementation effectiveness, in the form of MSME clustering and corporatization in synergy with the Government, while fostering bank cooperation with MSME channeling partner institutions, as well as by developing MSME financing securities that can meet the requirements. Bank Indonesia also synergizes with the government to expand access to financing and develop MSMEs, including low-income and subsistence groups. Furthermore, Bank Indonesia is also synergizing with KSSK and related government ministries/institutions to continue in developing sustainable finance to support the transformation of the green financial system, including macroprudential policies that support green finance.

The increase in lending/financing going forward is supported by both adequate supply capacity of banks and increasing corporate demand in line with the national economic recovery. As described above, the supply capacity of banks in terms of lending/financing is supported by loose liquidity conditions, attractive lending rates, strong capital, improving lending requirements, favorable economic prospects, and accommodative macroprudential policy from Bank Indonesia. On the demand side, the increase in intermediation is supported by a continued recovery in corporate and household performance. Corporate performance is reflected by improvements in repayment capacity, sales, and capital expenditures, particularly in the trade and mining sectors. The improvement in corporate performance implies that the scarring effect of the Covid-19 pandemic is fading in line with the increases in mobility and economic growth. Furthermore, positive interaction between bank supply and corporate demand is evident from the growing number of economic subsectors in the positive credit growth and loose lending requirements quadrant (Quadrant I) in September 2022, namely 19 subsectors, compared to September 2021 with 16 subsectors. (Figure 18). The subsectors experiencing

Figure 18. Improved Credit Growth and Lending Requirements

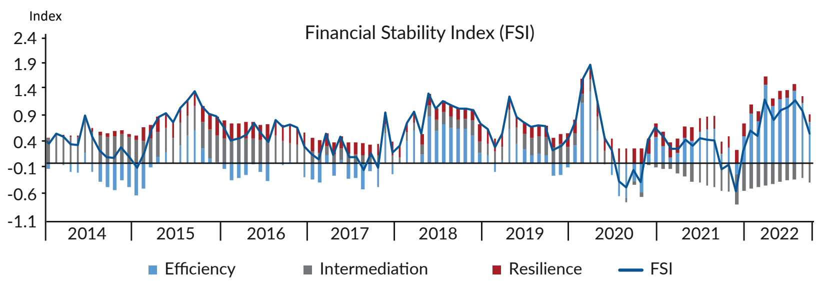


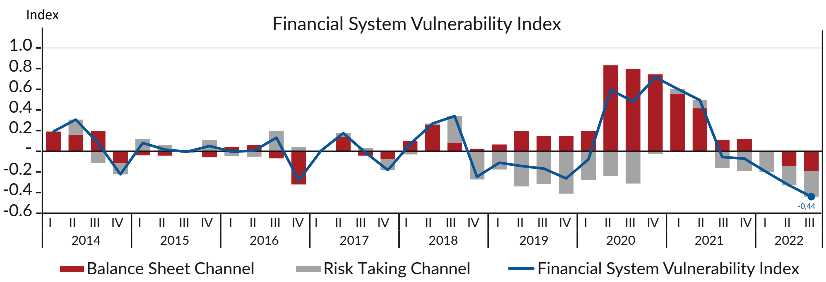
Source: Bank Indonesia

improvement included the nonmetallic minerals industry and the transportation equipment industry. On the other hand, the number of economic subsectors with negative credit growth and tight lending requirements (Quadrant III) decreased from 12 to 5 subsectors, including the transportation subsector (rail, sea, rivers, and lakes), water supply, as well as the rubber and plastic industry. Bank Indonesia views that banks can further relax lending requirements in subsectors with mitigated credit risk in line with improving corporate performance and future economic growth. Considering such developments and the synergic efforts that are continuously being carried out by the authorities, financial sector and corporate sector, Bank Indonesia projects credit growth in the range of 10-12% (yoy) in 2023. Bank Indonesia will continue to strengthen synergy and coordination with the government and KSSK to revive bank intermediation to businesses to strengthen national economic resilience and recovery.

KSSK policy coordination and supervision continues to be strengthened to maintain financial system stability, including in formulating joint efforts to mitigate the spillover effect of global turmoil. As noted, financial system stability is predicted to remain strong and the bank intermediation function will continue to improve in line with the national economic recovery. This is evident from the Financial System Stability Index (FSSI) and the Financial System Vulnerability Index compiled by Bank Indonesia (Graph 26). Nevertheless, several short-term risks from macro-financial linkages need to be monitored so as not to create vulnerabilities in the financial system. The normalization of fiscal and monetary policies will reduce liquidity, although Bank Indonesia will ensure sufficient availability for banks to channel credit/financing to businesses and purchase of SBN from the primary market for the APBN financing. Rupiah volatility, coupled with increases in monetary policy rates and SBN yields will intensify market risk for banks, which will, therefore, need to strengthen risk management and reserves for possible losses that may arise. Likewise, credit risk to banks may increase due to the possibility of an economic slowdown before restructuring comes to an end. In this regard, KSSK coordination continues to be strengthened by conducting stress-tests on the financial sector individually and as the system against such risks. The results of these tests serve as the basis for the formulation of the policy and supervisory response required by each institution, namely the Ministry of Finance, Bank Indonesia, OJK, and LPS, in accordance with their respective authorities. In

Graph 26. Stronger Financial System Stability and Resilience





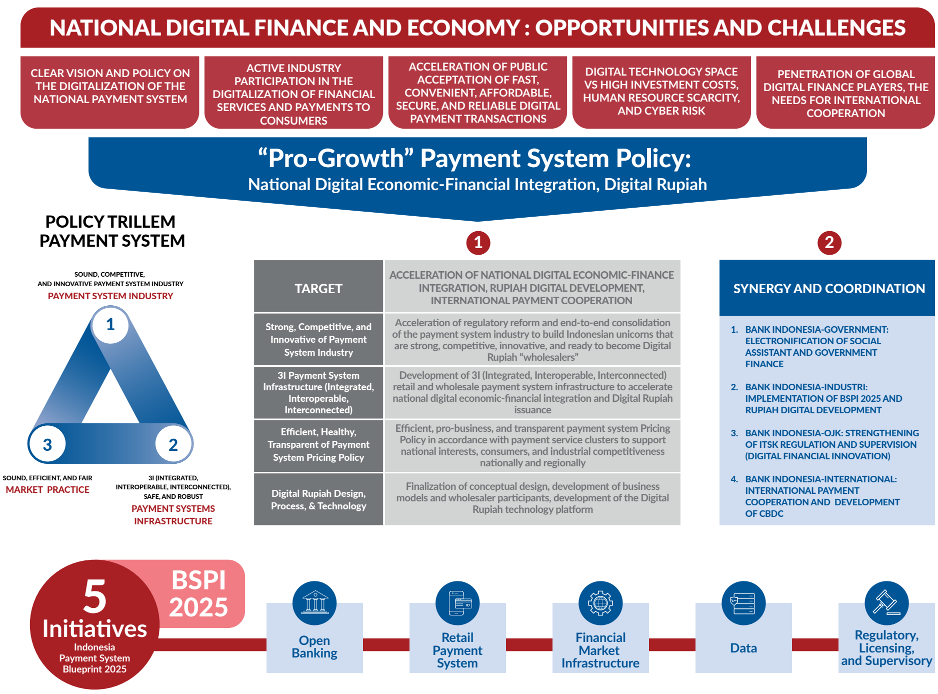
Source: Bank Indonesia

addition, coordination in systemic surveillance within the framework of the Integrated Banking Supervision Forum between Bank Indonesia, OJK and LPS is routinely carried out. In addition to macro-microprudential policy synergy, Bank Indonesia and OJK continue to strengthen coordination in the provision of Short-Term Liquidity Loans and Sharia Short-Term Liquidity Financing (PLJP and PLJPS) by Bank Indonesia. Bank Indonesia and LPS also continue to coordinate to strengthen readiness to handle problem banks or bank resolution by LPS if required. The various measures taken to strengthen policy coordination and inter-authority supervision under the auspices of KSSK is the basis for further strengthening of prevailing laws and regulations.

Payment System Policy Direction

Payment system policy in 2023 will continue to be directed towards accelerating payment system digitalization for further integration in the national economic-financial digital ecosystem, developing Digital Rupiah, as well as expanding cross-border payment system cooperation. The direction of payment system policy remains based on the implementation of Indonesia Payment System Blueprint (BSPI) 2025. Advancement of the national digital economy and finance has thus far provided opportunities and challenges to develop rapidly in the future, with a clear vision, strategy and actual digitalization program for the payment system in BSPI 2025, which is fully supported by the active participation of the industry through the digitalization of financial services and payments to consumers as well as accelerating public acceptance of fast, convenient, affordable, secure, and reliable digital payment transactions (Scheme 10). Nevertheless, we needs to remain vigilant about a number of challenges, including the rapid development of digital technology, which necessitates high investment costs, the scarcity of human resources, and cyber risks, as well as the rapid penetration of global financial digital players and the demands of international cooperation. In this regard, payment system policy in 2023 will continue towards accelerating and strengthening the integration of the national economic-financial digital ecosystem according to the first vision of the BSPI 2025, namely to be stronger and more competitive in international

Scheme 10. Payment System Policy Direction in 2023

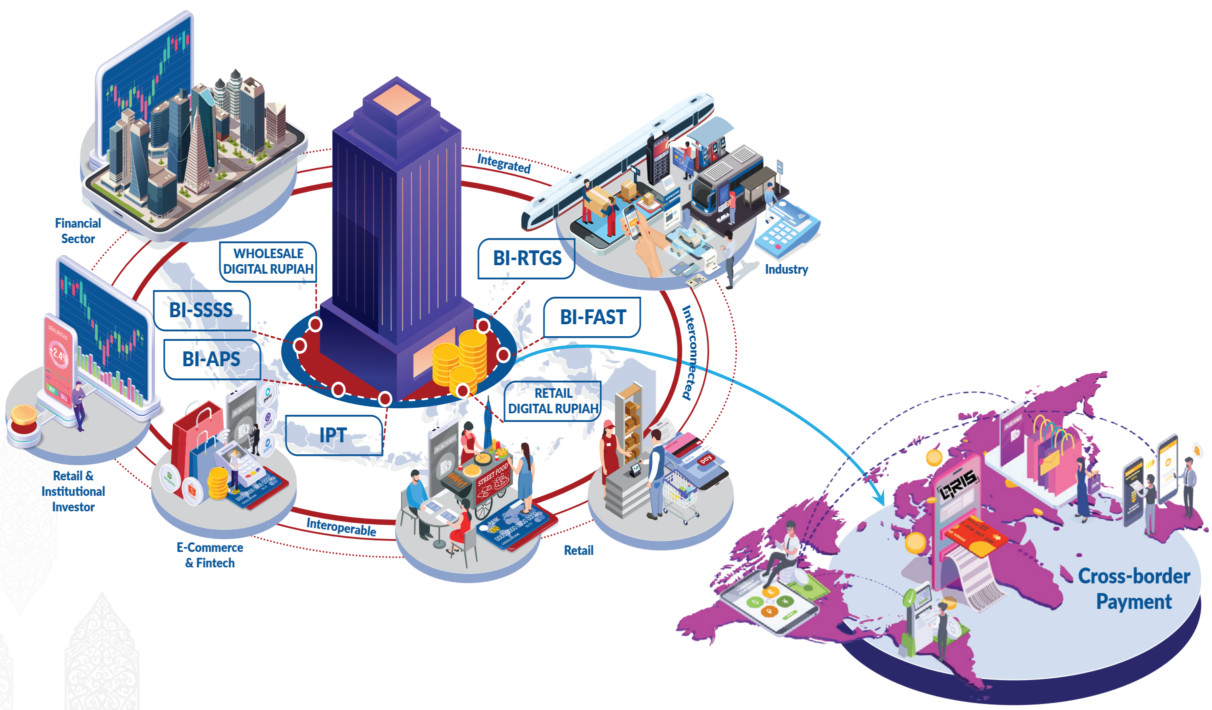


Source: Bank Indonesia

cooperation based on national interests according to the fifth vision of the BSPI 2025. Befitting the Youth Pledge of 28 October 1928, the policy direction was intended as the embodiment of “One Country, One Nation, and One Language” in the integration of the national economic-financial digital ecosystem. The aim is to optimize three goals, namely: (i) a healthy, competitive, and innovative payment system industry; (ii) 3I payment system infrastructure (integrated, interoperable, interconnected); and (iii) safe, efficient, and fair market practices. The optimization of the national economic-financial digital ecosystem is still based on accelerating banking digitalization according to the second vision, in collaboration with fintech and e-commerce according to the third vision, and encouraging innovation balanced with cyber security and consumer protection according to the fourth vision of the BSPI 2025. In its implementation, diversity in the capacity of participants, infrastructure, services, and payment instruments is still considered by prioritizing national interests in accordance with the principle of “Bhinneka Tunggal Ika” within the framework of the Republic of Indonesia.

Payment system policy in 2023 will be instituted through 5 (five) main strategies that mutually strengthen national economic-financial digital ecosystem integration. First, the collaborative development of national standards as “One Language” of payment system services in collaboration between Bank Indonesia and the industry, as well as acceptance campaigns and their use by consumers in the public. Second, acceleration of regulatory reform and consolidation of the national payment system industry as “One Nation” in an end-to-end manner to build healthy, competitive, and innovative Indonesian unicorns, both nationally and internationally, and in the future ready to become a “wholesaler” in the issuance and circulation of Digital Rupiah. Third, further development of payment system infrastructure (retail and wholesale) with 3I (integrated, interoperable, interconnected) as “One Homeland” to accelerate the integration of the national economic-financial digital ecosystem and in the future as one of the prerequisites for the issuance of Digital Rupiah. Fourth, pricing policies and market practices of the national payment system industry that are safe,

Scheme 11. Configuration of National Economic-Financial Digital Ecosystem in the Future



Source: Bank Indonesia

efficient, and fair to support national interests, consumers, and industry competitiveness nationally and globally. Fifth, further development of Digital Rupiah as legal Central Bank Digital Currency (CBDC) in Indonesia through the finalization of conceptual design, development of business model including preparation of "wholesaler" participants, and development of technology platforms required for future issuance and circulation of Digital Rupiah (Scheme 11). The following is a further detailed explanation of the five main strategies.

First, the development of national standards for national digital payment services in accordance with international best practices collaboratively between Bank Indonesia and the industry, and its public acceptance campaign will be expanded to accelerate integration of the national economic-financial digital ecosystem. The success of Bank Indonesia collaboration with the industry in the preparation and use of QRIS as the only national QR standard in Indonesia will continue to be expanded both for public acceptance and the types of service. In 2023, QRIS payment service features will be expanded from QRIS Merchant Presented Mode (MPM), QRIS Customer Presented Mode (CPM) and QRIS Without Face-to-face (TTM), to QRIS Transfer Withdraw Deposit (TTS) and expansion of QRIS between countries as planned. The QRIS user target will be increased from 30 million to 45 million. Following the successful implementation cooperation with Thailand, the cooperation on QR code, Fast Payments, and Local Currency Transactions will be expanded, starting with the implementation of interoperability with Malaysia, a trial phase with Singapore, and preparations phase with the Philippines. Cooperation with other ASEAN countries will also be expanded as one of the achievements for Indonesia's ASEAN Chairmanship in 2023, in addition to other countries, such as India and Saudi Arabia. The successful implementation of the Open API Payments National Standard (SNAP) in 2022 will continue to be expanded in 2023 and beyond. The number of participants which has currently reached 15 providers and payment services which has reached 324 types, will be augmented to all payment service provider (PJP) and 2,194 types of services towards becoming "One Language" in various payment services in Indonesia. Bank Indonesia will also collaborate with industry to develop national payment data management to support the national economic-financial digital ecosystem, while respecting data confidentiality and privacy. Such data management, includes the development of payment identification numbers (Payment ID), classification of data into public data, contractual data and/or with consumer consent, as well as confidential and/or personal data, as well as technology for the necessary data center.

Second, Bank Indonesia will continue to encourage end-to-end consolidation of the national payment system industry to form healthy, competitive and innovative Indonesian unicorns, both nationally and internationally. As stated above, the rapid global financial digital penetration into various countries, including Indonesia, is happening, as well as the profileration of crypto currency and the dominance of digital technology by BigTech. The demand for cross-border payment cooperation has also increased in accordance with the agreement on the "cross-border payment roadmap" of the G20 countries as one of the concrete achievements of Indonesia's G20 Presidency in 2022. Therefore, consolidation of the national payment industry is critical so that Indonesia is better prepared to face foreign penetration and to fulfill international commitments. With this regard, Bank Indonesia carried out regulatory reforms for the national payment system industry by appointing Payment System Infrastructure Providers or PIP (6 systemic PIPs and 3 critical PIPs) and granting licenses to three types of Payment Service Providers (PJP), namely systemic (10 PJPS), critical (20 PJPK), and general (350 PJPU), according to the criteria of size, interconnectedness, complexity, and substitutability (Figure 19). With similar criteria, participation in BI-FAST is also grouped into Direct Participants (21 PL) and Indirect Participants (56 PTL) considering the technology investment necessary. Bank Indonesia also encourages cooperation (business and/or ownership), both inter-PJPs and with e-commerce

Figure 19. National Payment System Industry Classification

The classification of Payment System Provider (PJP) and Payment System Infrastructure Provider (PIP) based on criteria in Bank Indonesia regulation concerning Payment System Article 34 which consists of 4 indicators namely size, interconnectedness, complexity, and substitutability

1	Size	Transaction performance/exposure to economic and financial activities
2	Interconnectedness	Interconnectedness among providers and its impact on payment system and financial system stability
3	Complexity	Complexity of activities and its impact on financial system stability and economy
4	Substitutability	Substitutability of PJPs/PIPs roles and its impact on financial system stability and economy

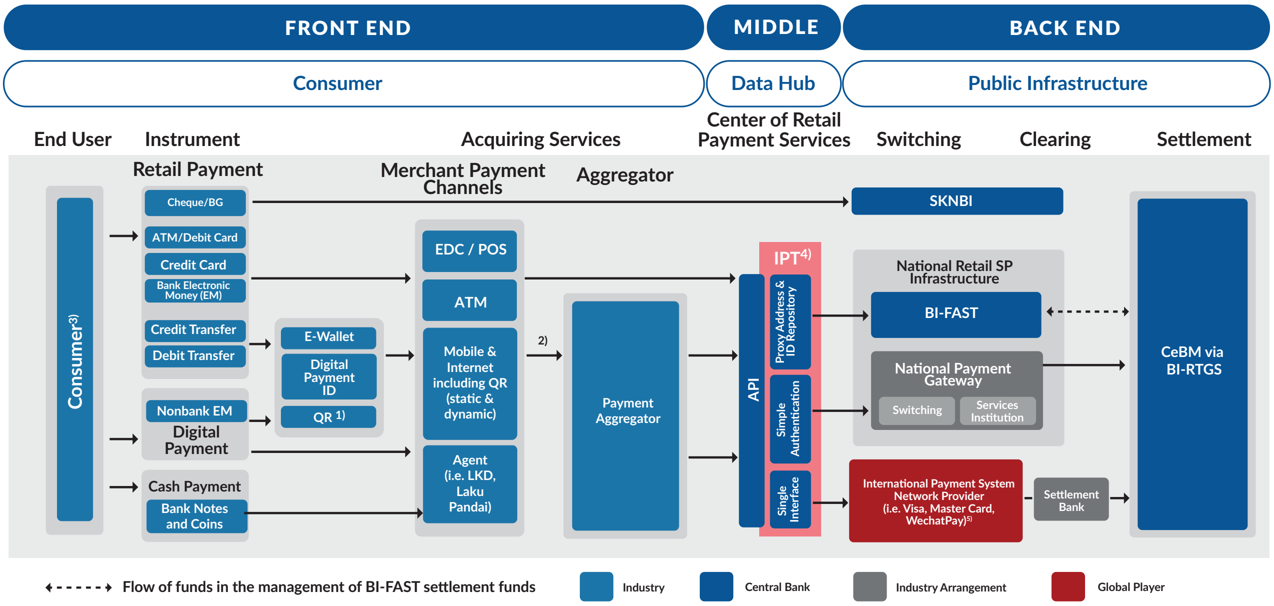
Source: Bank Indonesia

companies, to form an end-to-end national economic-financial digital ecosystem, namely the digitalization of the digital payment services provided by banks, nonbank institutions and e-commerce to consumers. Consolidation of an integrated payment industry will create Indonesian unicorns that are healthy, competitive, and innovative, both nationally and internationally. Moreover, the arrangement and consolidation of the payment system industry is also very important going forward for Bank Indonesia to determine which PJPs meet the requirements to become a "wholesaler" in the circulation of Digital Rupiah.

Third, the development of payment system infrastructure with 3I (integrated, interoperable, interconnected) will continue to accelerate and strengthen the national economic-financial digital ecosystem. Like toll roads, it is necessary to develop an urban ring road infrastructure for vehicle access from the city center to various destinations, and vice versa. Therefore, an end-to-end 3I payment system infrastructure is required, from wholesale (BI-RTGS) for deposit access to accounts at Bank Indonesia through retail infrastructure (BI-FAST, GPN, and SKNBI) to industry-developed payment channels according to the business model and public preference (Scheme 12). In addition to the convenience, speed, and security of payment services to and from consumers, the need for 3I is to strengthen the "unity in diversity" of the national payment system to support the revival of the national economy in the digital era going forward. The main focus of development in 2023 is on 3I retail payment system infrastructure (BI-FAST, SKNBI, GPN) and wholesale infrastructure (BI-RTGS). The initial phase of development will be carried out in 3I between BI-FAST and BI-RTGS, followed by 3I between BI-FAST, BI-RTGS and GPN. In addition, a study of the development of the Integrated Payment Interface (IPT) for interconnection between payment channels within the industry will be continued for implementation in the following year. Progress on 3I between the payment system infrastructure above is one of the prerequisites for the future issuance of Digital Rupiah.

Fourth, pricing policy and market practices will continue to be developed to realize a sound, efficient, and fair national payment system industry. Amid increasingly widespread and complex digital payment system services, the current price scheme in the industry is significantly varied between the types of instruments, services, and PJPs. The pricing scheme even extend to various infrastructures and instruments. Pricing policies and strategies implemented by incumbent PJPs and new players has potentially lead to to unfair competition. These

Scheme 12. The Future of Payment System Infrastructure Interconnection

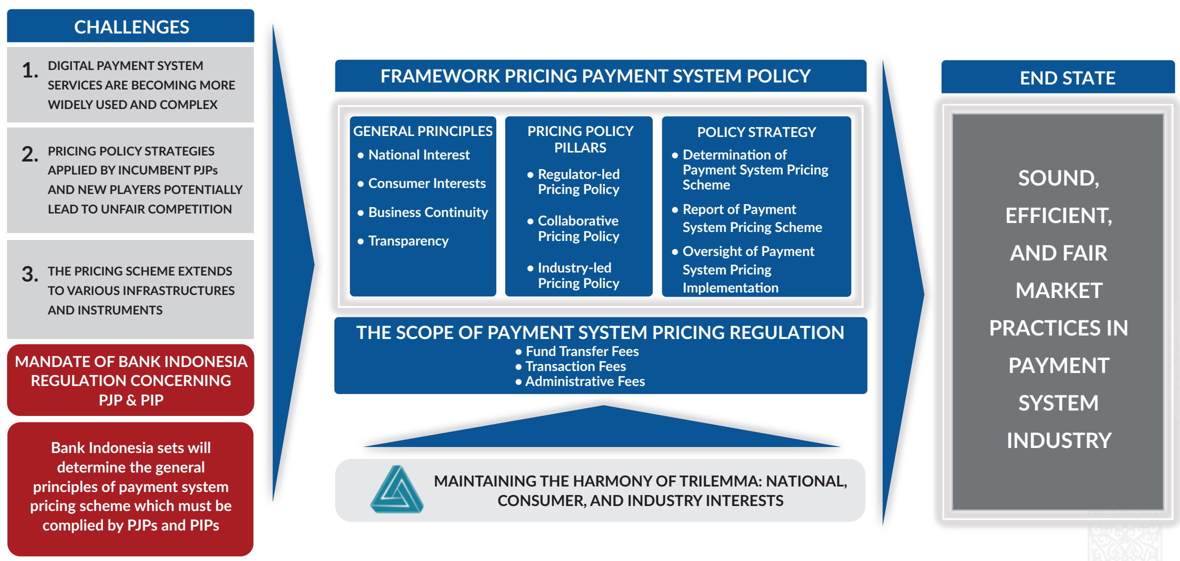


1) Quick Response Indonesia Standard (QRIS)
2) As long as IPT and BI FAST are not ready to process based transactions mobile then the processing of card and mobile transactions will go through the GPN
3) Includes individuals, corporations, and governments
4) Integrated Payment Interface
5) Cross Border transaction data will be passed through the Integrated Payment Interface before to the International Payment System network provider in the context of capturing data

Source: Bank Indonesia

various factors cause payment services in Indonesia to be inefficient and the industry is less competitive, thus creating a burden to the public. It is necessary, therefore, to reform the payment system pricing policy in Indonesia to serve the national interest and the consumers, while still encouraging business continuity, competitiveness, and innovation nationally and globally (Scheme 13). To that end, the pricing policy will be pursued through three pillars. The first pillar will be regulator-led policy of Bank Indonesia, particularly for systemically important payment system with the infrastructure provided by Bank Indonesia, national interest and the people, including for government programs.

Scheme 13. The Direction of Payment System Pricing Policy

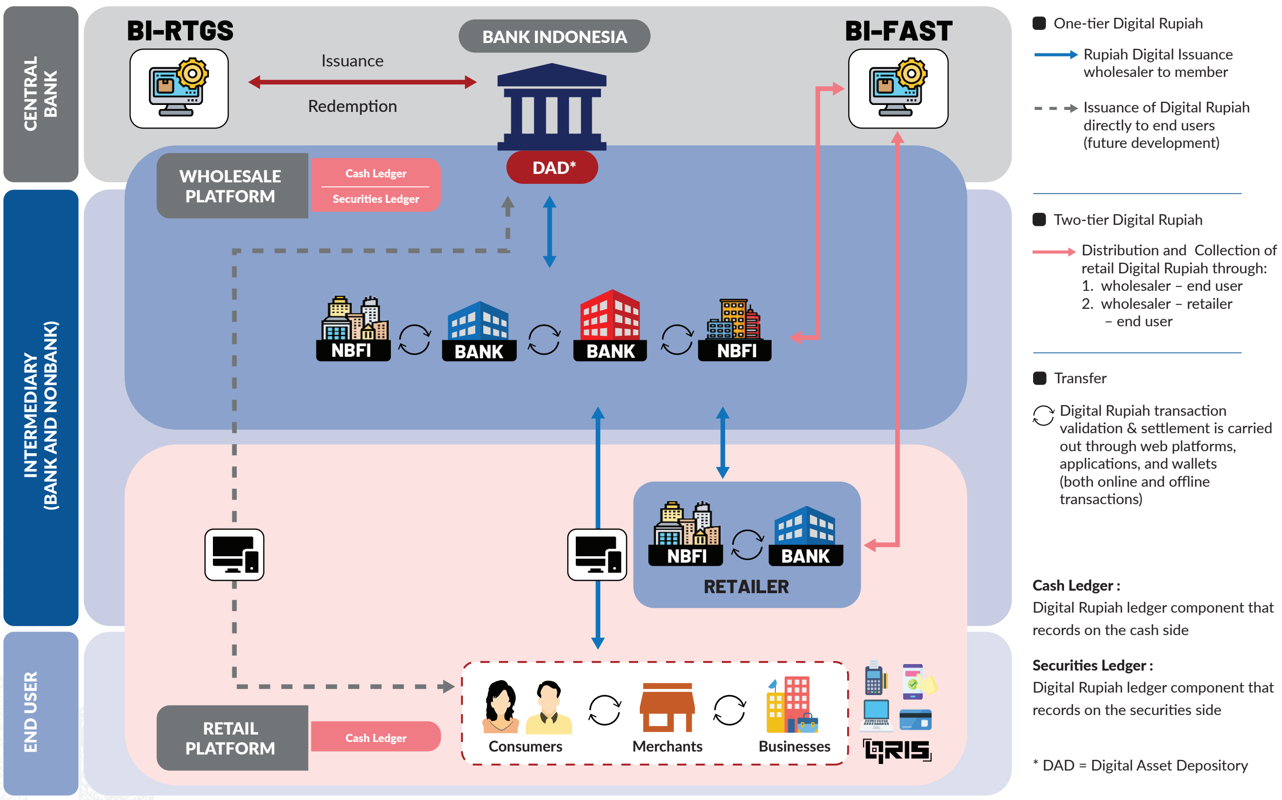


Source: Bank Indonesia

The second pillar will be determined by Bank Indonesia in collaboration with industry associations (collaborative regulator and industry policy), particularly on inter-industry payment services that require technology investment costs. Third pillar will be determined by industry associations themselves (industry-led policy), namely on payment services from the industry to consumers that require innovation and marketing costs. The three pillars of the pricing policy will be implemented in accordance with similar payment service clusters to simplify, harmonize, and simultaneously reduce transaction costs in digital payment systems. Therefore, the pricing scheme needs to continue providing attractive and profitable incentives for the industry to continue investing and innovating, without burdening the consumer. Strengthening risk management and payment systems supervision will also continue to be pursued, particularly in the implementation of cyber security and resilience, as well as strengthening compliance with the principles of Anti-Money Laundering and Prevention of Financing of Terrorism (AML/CFT).

Fifth, Bank Indonesia will continue to develop the Digital Rupiah as the only legal digital tender in Indonesia for various digital economic and financial transactions. Considering the advancement in 2022 in Indonesia and internationally, including through cooperation in the G20 forum, IMF, and BIS, the Digital Rupiah development plan in 2023 will cover the following three aspects. First, the conceptual design, which is currently in the finalization stage, will soon be published as a consultative paper for inputs from the industry and public (Scheme 14). In addition, Bank Indonesia is planning to build a technology platform for the Digital Rupiah Vault or "Khazanah Digital Rupiah (KDR)", Distributed Ledger Technology (DLT) or blockchain technology for its issuance, as well as establish several banks and nonbanks qualified as "wholesalers" that will be appointed to be able to circulate Digital Rupiah for the public. We view the selection of the Digital Rupiah "wholesaler" business model as more appropriate for Indonesia, as Bank Indonesia will focus more on its authority as the central bank for the issuance and distribution of Digital Rupiah.

Scheme 14. The Direction of Future Digital Rupiah Development

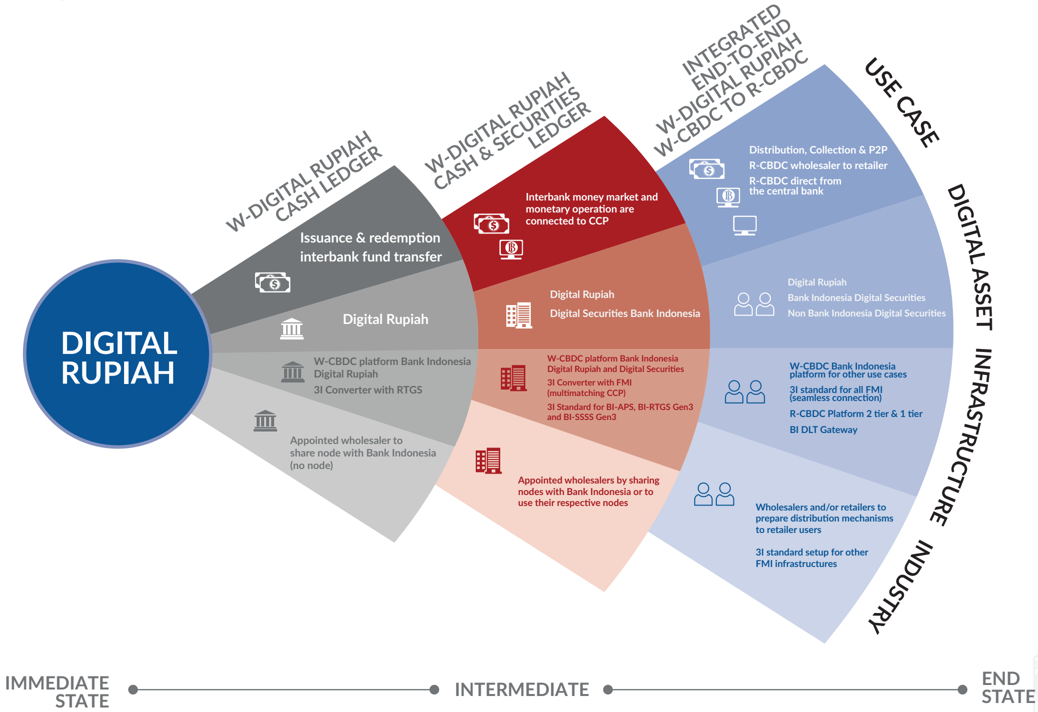


Source: Bank Indonesia

Meanwhile, its utilization for various “retail” digital economic and financial transactions by the public will be left to the banks and nonbanks appointed as “wholesalers”. Second, the availability of a 3I (integrated, interoperable, interconnected) payment system and money market infrastructure, particularly at and among the large banks and nonbanks that will be appointed as Digital Rupiah “wholesalers”. This is substantial as the “wholesalers” form a network through DLT technology or blockchains with Bank Indonesia and among themselves so that they can play a role in “retail” distribution to the public. Third, the selection of a technology platform that is compatible with a number of platforms currently being developed by central banks and international institutions. This is because in the end, the Digital Rupiah must also be able to connect with Central Bank Digital Currency (CBDC) issued by other central banks with the mechanism of determining the exchange rate through digital technology. Several technology platforms are currently being developed under international cooperation, such as the Dunbar project by BISIH Singapore, MAS, BNM, RBA, and SARB, and the mBridge project by BISIH Hong Kong, HKMA, BOT, PBoC, and CB-UAE. Ultimately, the interconnection of CBDCs between countries requires policy and regulatory agreements between participating central banks, among others related to the mechanism for determining exchange rates, managing foreign capital flows, monitoring both transactions and operational technology, including resilience to cyber attacks.

Today, we are launching the Digital Rupiah “white paper”, which we named “Project Garuda”, as a step to preserve the sovereignty of the Rupiah in digital ecosystem. This “white paper” contains the fundamental premise and roadmap to be taken (Figure 20). The Garuda Digital Rupiah Project will be implemented in several phases. The first phase will start with “wholesale-Digital Rupiah” for the use cases of issuance, redemption, and interbank fund transfer. In the second phase, the wholesale-Digital Rupiah will be expanded with use cases that support monetary operations and financial market development. The third stage we will develop an integrated end-to-end interaction between wholesale and retail-Digital Rupiah. Collaboration and synergy on national and international level is critical to the development of Digital Rupiah.

Figure 20. Digital Rupiah Development Roadmap



Source: Bank Indonesia

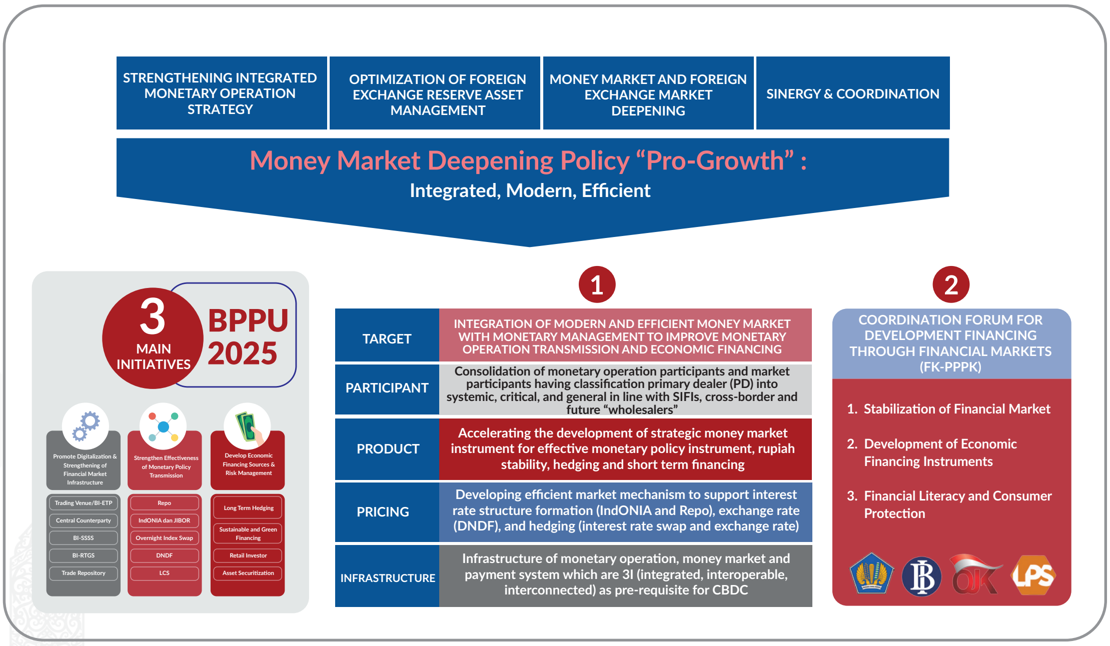
In addition to the five main strategies, Bank Indonesia will also continue to strengthen synergy and coordination with the Government (central and regional), banks, and associations in the payment system, fintech and e-commerce. Coordination with the Government (central and regional) is primarily directed at expanding the electronification of regional government financial transactions by strengthening Task Force for Acceleration and Expansion of Regional Digitalization (TP2DD), encouraging the distribution of Government to Person (G2P) 4.0 social assistance program, and expanding electronification and integration between transportation modes. Likewise, the digitalization of MSMEs and tourism will be intensified through Proud of Indonesian Product National Movement (Gernas BBI) and Proud Travelling #DiIndonesiaAja (BWI) movement in various regions and at the main tourism destinations, as determined by the Government. The synergy and coordination of regulation and supervision of the digitalization of payment system by Bank Indonesia with the digitalization of financial institutions by OJK will be further strengthened, including for crypto asset transactions, sandbox development, the Financial System Technology Industry, digital financial literacy and consumer protection, as well as cyber security.

Synergy with banks, payment system associations, fintech associations, and other associations continues to be strengthened both in expanding various existing payment system digitalization programs, such as QRIS, SNAP and BI-FAST, as well as expanding services to the wider community. It has become a principle of Bank Indonesia that payment system policies, regulations and supervision are formulated and implemented together with the industry (industry-friendly policy).

Money Market Deepening Policy

The money market deepening policy in 2023 will continue to be directed at strengthening the effectiveness of monetary policy operations and transmission, which will be increasingly integrated with the creation of a modern and efficient money market, as efforts to support financing for the national economy. The direction of money market deepening remains consistent with the goals and programs in the Money Market Development Blueprint (BPPU) 2025, namely to build a modern and international-standard money market, and support the transformation of monetary management that is integrated with the money market (Scheme 15). The

Scheme 15. The Policy Direction of Money Market Deepening in 2023

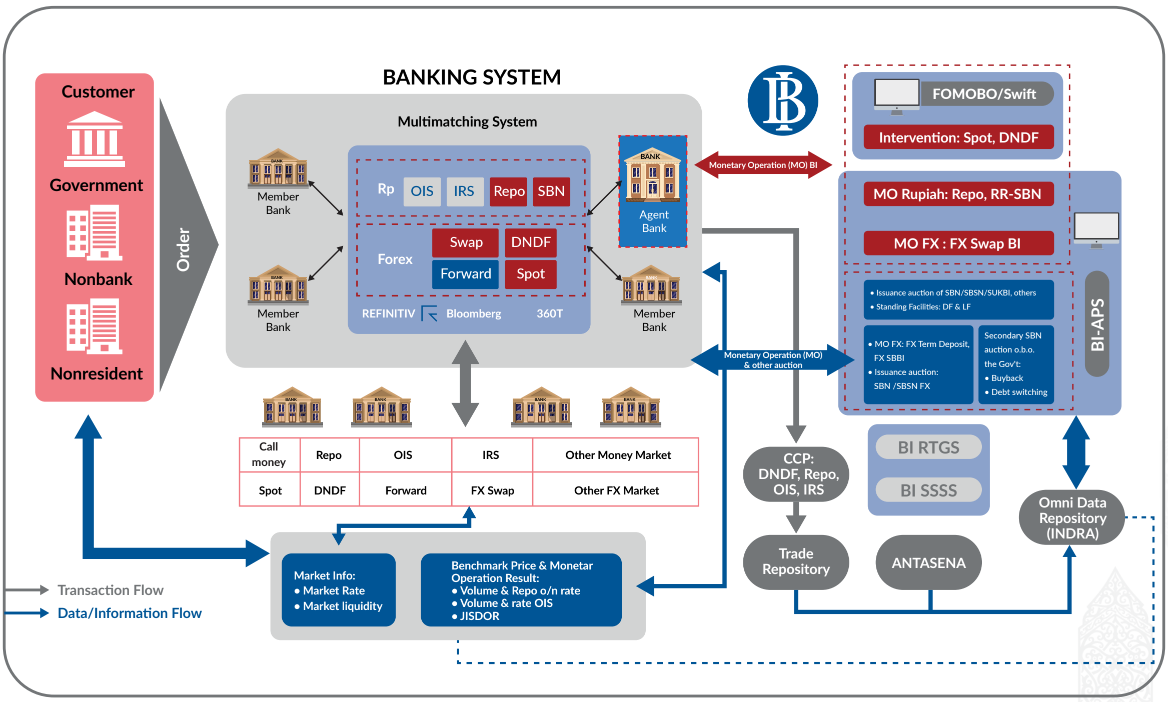


Source: Bank Indonesia

development focus will remain on three aspects of an efficient money market (3P), namely products, participants, and pricing, as well as 3I infrastructure (integrated, interoperable, interconnected) between the money market and the payment system. More emphasis will be placed on the 3I aspect between infrastructure, participants, and instruments in supporting the integration of Bank Indonesia monetary operations with money market deepening. With this in mind, the money market development policy in 2023 will be focused on the following four main programs. First, the 3I development between Bank Indonesia's monetary operations infrastructure with money market infrastructure to further strengthen monetary policy transmission effectiveness and accelerate the modernization of the Indonesian money market. Second, consolidation of monetary operation participants where money market players will be classified into strategic, critical, and general according to the criteria of systemically important financial institutions (SIFIs), in line with the classification of the payment system industry (SIPS). Third, the development of money market instruments to support money market (Rupiah and foreign exchange) and bond market stability, particularly the derivative instruments, such as DNDF, repo as well as exchange rate and interest rate swaps, without compromising the development of other financial instruments. Fourth, strengthening efficient market mechanisms in the formation of interest rate structures (IndONIA and Repo), exchange rates (DNDF), and hedging (interest rate and exchange rate swaps) to strengthen monetary policy transmission and financial market stability.

First, 3I (integrated, interoperable, interconnected) development of Bank Indonesia's monetary operations infrastructure with the money market infrastructure to further strengthen monetary policy transmission effectiveness and accelerate the modernization of the Indonesian money market. In this regard, Bank Indonesia will continue to finalize the Conceptual Design (CD) for the development of 3I money market infrastructure with the payment system, including BI-APS, BI-SSSS, BI-RTGS Gen-3, and Trade Repository (Scheme 16). Bank Indonesia will prioritize infrastructure development for the modernization of monetary operations, the BI-APS,

Scheme 16. 3I Development Direction for Money Market Infrastructure, Monetary Operations, and Payment Systems Moving Forward



Source: Bank Indonesia

which will be followed by other infrastructure, particularly the modernization of the BI-SSSS, which facilitate the use of SBN as underlying for repo transactions and other money market derivative products. Regarding money market infrastructure, Bank Indonesia strengthen collaboration with the industry in developing a Central Counterparty (CCP) for SBNT (interest rate and exchange rate) derivative market on a netting basis (CCP SBNT), in addition to expanding money market transactions through ETP Multimatching both for the Rupiah and foreign exchange money markets. Bank Indonesia emphasizes the need for 3I between monetary operations infrastructure, BI-APS, and money market infrastructure, CCP SBNT and ETP Multimatching due to several considerations. First, this will enable Bank Indonesia to become a participant in money market transactions, without compromising Bank Indonesia's ability to carry out direct monetary operations as it has thus far. Bank Indonesia participation in the market will clearly increase transactions and the depth of the money market in Indonesia. Second, effectiveness of the policy rate transmission to the money market and SBN market will be strengthened by Bank Indonesia participation and the increasing number of money market transactions, including the formation of the interest rate structure arising from these transactions. Money market efficiency will increase. Third, 3I monetary operation and market infrastructure will also be one of the prerequisites for the issuance and circulation of Digital Rupiah as described previously. Thus, in the future, monetary operations and transactions in the money market will be carried out either through the existing transfer mechanism between bank accounts, or directly through the Digital Rupiah.

Second, Bank Indonesia will consolidate monetary operations and money market participants by grouping them according to the size and the importance in accordance with systemically important financial institutions (SIFIs). To the date, participants in monetary and money market operations are heterogeneous in terms of transaction size, institutional capability, and risk management. This has potential to create money market segmentation, resulting in underdeveloped transactions and inefficient market mechanisms due to the magnitude of risk, including liquidity risk, market risk, credit risk and operational risk. The classification of participants into systemic, critical, and general based on 4 (four) main criterias in accordance with the BIS, namely: size, interconnectedness, complexity, and substitutability, therby consistent with international standards, similar to the determination of systemic banks. Similiar approach has been applied by Bank Indonesia in classifying the PJPs into systemic, critical, and general PJPs as well as determining direct and indirect participants in BI-FAST. The four-main criteria approach, will also be applied to the classification of Primary Dealers (PDs) as participants in monetary operations and money market players. Moving forward, there will be convergence in the classification of financial institutions as systemic banks and as participants in monetary operations, payment systems and money markets, namely into systemic, critical, and general. This convergence of participants is critical not only to accelerate the consolidation of money market and payment system players, but also for Bank Indonesia in terms of conducting supervision with approaches and criteria that comply with international standards. Moreover, the classification is also very important for Bank Indonesia moving forward when determining which participants meet the requirements to become wholesalers in the issuance and circulation of Digital Rupiah.

Third, the development of money market instruments that support money market (Rupiah and foreign exchange) as well as bond market stability without compromising the development of other financing instruments. Currently, the underdeveloped short-term money market drives high liquidity risk, market risk (exchange rate and interest rate), and credit risk in the financial market. Despite the development of derivative instruments in the foreign exchange market, such as DNDF and swaps as exchange rate hedging instruments, transaction volume remains limited and mostly dominated by Bank Indonesia monetary operations with limited tenors of up to 3 months. The volume of swaps, as an interest rate hedging instrument, is still also limited. The volume of repo transactions with underlying SBN in the money market remain limited, as are short-term securities, such as Commercial Papers (SBK). Therefore, Bank Indonesia will focus more on developing instruments and increasing the volume of money market transactions, thus more efficient to nurture (portfolio and FDI) investment and simultaneously strengthen the effectiveness of monetary policy transmission in Indonesia. Meanwhile, the development of economic financing instruments for the economy will also continue to be strengthened through three policy strategies, namely: (i) developing asset securitization through the asset-backed securities-collective investment contracts (KIK-EBA) and asset-backed securities-participation note (EBA-SP) programs; (ii) developing retail investors and financial literacy on a regular basis; and (iii) strengthening coordination and communication in the development of the Sustainable Green Finance (SGF). These various financial market deepening policies will certainly be supported by a close synergy between Bank Indonesia, Ministry of Finance, OJK, and LPS within the Coordination Forum for Development Financing through Financial Markets (FK-PPPK).

In this regard, various programs continue to be improved to increase the use of Local Currency Transaction (LCT) framework in facilitating trade and investment with partner countries, by strengthening synergy and coordination with other relevant authorities. The LCT campaign continues to be broadly expanded for the use of LCT Appointed Cross Currency Dealers (ACCD) to banks, corporations, and other potential users, in collaboration with relevant agencies at home and in partner countries. Included in this program is the implementation of the non-USD/IDR reference rate for the development of derivative instruments within the LCT framework. In addition, Bank Indonesia will also strengthen transaction regulations in the foreign exchange market by simplifying and integrating regulations to encourage market deepening and support financial system stability. Money market regulatory reform will simplify provisions according to a principle-based approach to increase implementation flexibility and effectiveness for market participants.

Inclusive and Green Economic-Financial Policy

Bank Indonesia continues to strengthen its MSME development program to promote MSME as the pride of Indonesia, Go Export and Go Digital. Bank Indonesia consistently implements MSME development programs to create a value added contribution in controlling inflation and in increasing foreign exchange from exports. The MSME development programs are implemented through 3 (three) policy pillars, namely corporatization, capacity building, and financing in order to enhance MSME's competitiveness. The corporatization is carried out through the strengthening of formal institutions, the expansion of partnerships, as well as the development of business models for the creation of new entrepreneurs. Capacity building is focused on creating end-to-end capacity building supported by digitalization to increase production, enhance financial management and expand of market access. Market access is unlocked through product certification and curation, promotion of international trade, and fostering interconnections with the local value chain (LVC) and global value chain (GVC). The Karya Kreatif Indonesia (KKI) event, which encourages MSME to Go Export and Go Digital, continues to be improved, as well as synergy with the Goverment in the successful Gernas BBI and Bangga Berwisata #DiIndonesiaAja (BWI) movement involving all 46 Bank Indonesia representative offices. Meanwhile, MSME access to financing is facilitated to support compliance with inclusive financing regulations, among others through mapping the trends of MSME financing via multiple e-commerce channels and partnerships, as well as facilitating business matching. Bank Indonesia will also support the green MSME campaign, beginning with studies and pilot projects to hone existing practices.

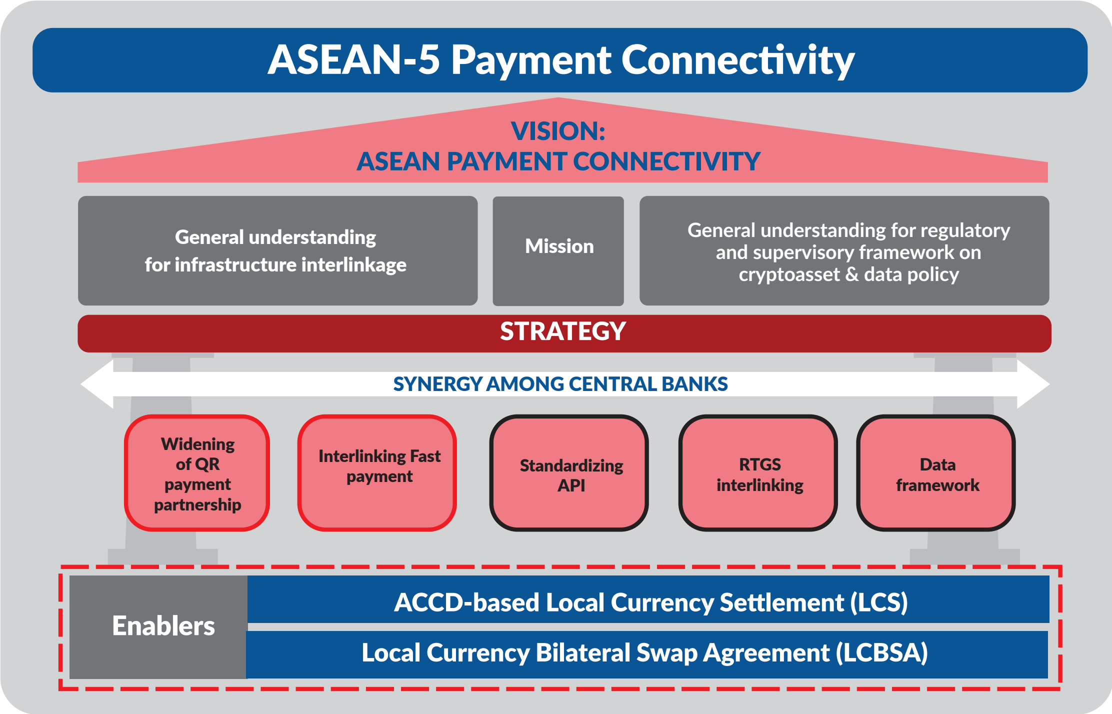
Bank Indonesia continues to support the growing role of the sharia economy and finance as a new source of economic growth. Implementation of a halal value chain ecosystem, both locally and internationally, is being expanded in terms of the participants, institutions and supporting infrastructure. Halal value chain ecosystem development will continue to prioritize the leading sectors of halal food and modest fashion. In terms of sharia finance, sharia money market deepening is pursued through, among others, development of foreign exchange transaction instruments and the Inclusive BI Sukuk. Support to increase the optimization of sharia social finance as an alternative source of financing for the major sectors of the sharia economy continues to be encouraged, especially through productive waqf. In addition, business linkages through a series of Sharia Economic Festival (FESyar) events in three regions (Java, Sumatra, Eastern Indonesia) and the international Indonesia Sharia Economic Festival (ISEF) event will continue to be facilitated. The center of excellence for the sharia economy and finance is also being improved continuously through higher education as an important part of implementing strategies for increasing public literacy. To that end, Bank Indonesia continues to strengthen synergy with various parties, both within the National Sharia Economy and Finance Committee (KNEKS) as well as with Islamic boarding schools (pesantren), the Sharia Economic Community (MES), business associations, banks, as well as scholars, academics and the wider community.

Bank Indonesia strengthen policy synergy with the Government to support a sustainable economy characterized by a stable, inclusive, and green financial system. In response to the future challenges associated with climate change, which could threaten economic stability, and as Bank Indonesia's active contribution in achieving the low-carbon target, Bank Indonesia carry out a comprehensive transformation by strengthening green finance policies. Bank Indonesia continues to conduct studies on green macroprudential policies to support sustainable finance, while accelerating financial market deepening through the development of green money market instruments. The manifestation of a green and inclusive economy and finance continues through, among others, the development of a circular economy business model, green farming, and green financial reports for MSMEs and sharia economic players. In addition, Bank Indonesia continues its institutional transformation, encompassing governance, risk management, strategies, and green performance indicators. In its development and implementation, Bank Indonesia will continue to synergize and coordinate closely with KSSK, ministries/institutions, and relevant stakeholders.

International Policy

Following, the success of Indonesia's G20 Presidency in 2022, Bank Indonesia commits to support the success for Indonesia's ASEAN Chairmanship of Indonesia in 2023 in close synergy with the Government, with focus on financial integration track. In this regard, Bank Indonesia will fully support the continuation of the 6 (six) priority agendas in the Finance Track of the 2020 G20 Indonesia's Presidency, with the theme "Recover Together, Recover Stronger" for the priority agenda of ASEAN Financial Integration, under the Chairmanship of Indonesia in 2023 with the theme "Recovery-Rebuilding, Digital Economy, Sustainability". In the first pillar "Recovery-Rebuilding", the G20 priority agenda "Addressing Exit Policy Spillovers and Scarring Effects" will be the agenda for the ASEAN Chairmanship in 2023 with High-Level Policy Dialogue and Technical Level Discussion on Exit Policy Spillovers, Scarring Effects, and the Macroeconomic Policy Mix (IMF-Integrated Policy Framework and BIS-Macro-Financial Policy Framework). In addition, increasing ASEAN cooperation in the application of the Local Currency Transaction (LCT) Framework is carried out by, among others, strengthening authority support/incentives, relaxing regulations, financial market infrastructure, and LCT linkages with cross-border payments. For the second pillar, the "Digital Economy", Bank Indonesia will raise the G20 agenda

Scheme 17. ASEAN Payment System Connectivity Moving Forward



Source: Bank Indonesia

"Advancing Payment Connectivity and Promoting Digital Financial Inclusion and Literacy" in ASEAN. In this regard, Bank Indonesia will focus on Advancing ASEAN Payment Connectivity with the Cross-Border Payments Linkage collaboration, namely QR and fast payment connectivity with LCT, which was inaugurated by the President of the Republic of Indonesia at the G20 Leaders' Summit in Bali on 14 November 2022 (Scheme 17). In addition, there will be a High-Level Policy Discussion to support CBDC Initiatives, Promote Digital Financial Inclusion and Literacy to strengthen Digital Financial Literacy in ASEAN, including implementation of the Digital Financial Inclusion Festival, a High-Level Regulatory and Supervisory Discussion on Crypto Assets and Cybersecurity and the implications for WC-ABIF Guidelines to Incorporate Digitalization. Policy Discussion and Seminars addressing Climate Related Risk are also scheduled.

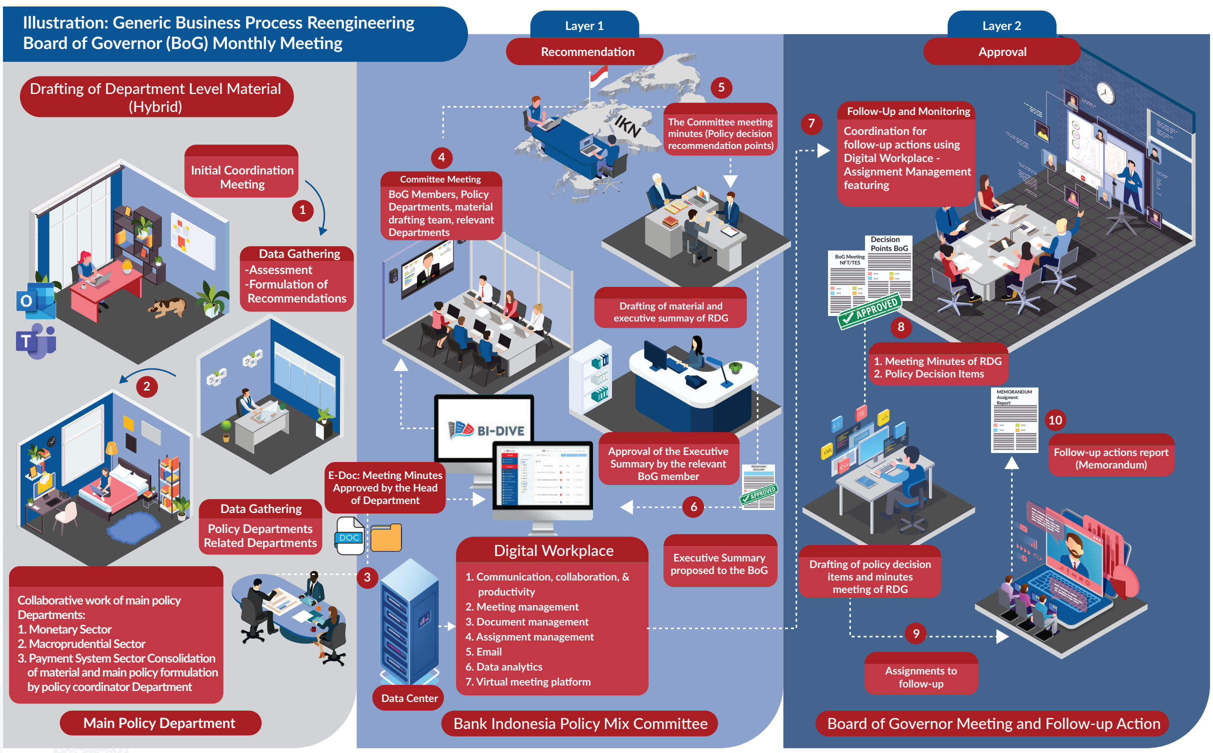
In addition to the ASEAN Chairmanship in 2023, Bank Indonesia continues to pursue active participation in various international cooperation forums to support national economic recovery. Strengthening international cooperation is also continuously carried out at the multilateral, regional and bilateral levels in relation to the International Financial Safety Net, Local Currency Transactions (LCT), Payment Systems and Digital Financial Innovation, Anti-Money Laundering and Prevention of Terrorism Financing, as well as Structured Bilateral Cooperation with central banks and other international institutions. Bank Indonesia continues to increase the positive perception of investors and rating agencies through more proactive engagement activities. We also continue to play an important role in facilitating the promotion of trade and investment in priority sectors through support from the Investor Relations Unit (IRU) at the regional, national, and international levels. Bank Indonesia will carry out a massive campaign to encourage and expand the use of LCT, including through outreach activities to potential business actors in collaboration with the overseas and domestic Bank Indonesia representative offices, and other strategic partners.

Institutional Transformation Policy

Bank Indonesia will continue to undertake comprehensive institutional transformation to build a credible central bank, with excellent performance, good governance and transparent. The policy, organizational, human resources and digital transformation, which have been initiated since 2018, will be strengthened further and hones to realize the vision of become the foremost digital central bank that creates a tangible contribution to the national economy and the best amongst emerging market countries towards Advanced Indonesia. To improve the policy mix response in terms of strengthening economic resilience, recovery, and revival from the impact of global turmoil, policy transformation is focused on strengthening the Bank Indonesia policy mix framework, macroeconomic and financial system modeling, and striking an optimal policy mix response. Strengthening monetary policy transformation emphasizes the formulation of an optimal interest rate policy response, exchange rate stabilization and twist operations, along with monetary management integration with money market deepening in accordance with BPPU 2025, as well as optimizing the management of adequate reserve assets. Macroprudential policy transformation emphasizes strengthening macro-financial linkage modeling, an integrated macroprudential policy response with systemic surveillance, developing macroprudential policy instruments for bank lending/financing to the business sectors, as well as the readiness of short-term liquidity assistance/sharia short-term liquidity assistance if necessary. Meanwhile, payment system policy transformation will remain focus on continuing payment system digitalization in accordance with BSPI 2025 and further development of the Digital Rupiah.

Organizational transformation is directed at strengthening the implementation of a framework for institutional excellence and strengthening the digitalization of policy and institutional work processes. The existing implementation of assessments underlying the institutional

Scheme 18. Bank Indonesia Digital Business Process Reengineering

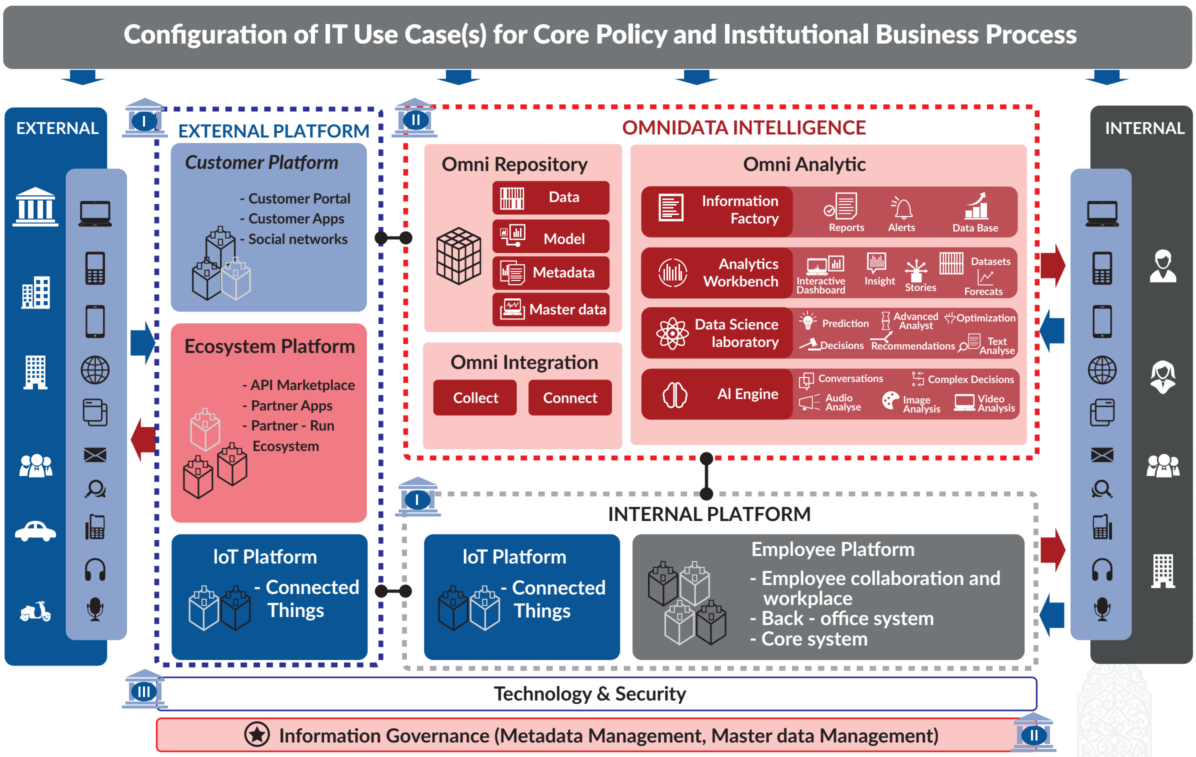


Source: Bank Indonesia

policy response based on Effective, Efficient, and Governance (2EG) through the quarterly Board of Governors Meeting on Institutions will be strengthened with methodologies for measuring the effectiveness of the correlation between performance indicators and work processes, the efficiency of important budget items with the achievement of performance indicators, strengthening future strategic risk measurement and mitigation as well as internal audits. Strengthening of work processes, risk management, and the management of major projects continues for both information system projects and physical projects. Meanwhile, the implementation of Digital Business Process Re-engineering (Digital BPR) in the formulation of the policy mix that has been successful in the departmental level to the Board of Governors Meeting will be expanded with Digital BPR within the departments by creating “digital collaborative work”, which will start from the policy formulation department, strategic management, and human resources (Scheme 18). With Digital BPR, the work process has been shortened from eight stages to four from work units at the departmental level to decision-making at the Board of Governors Meeting. Hybrid work will also be maintained as it is more effective and efficient in managing resources and achieving performance.

Digital transformation for policy and institutional work processes will be accelerated based on the Master Plan for Digital Innovation in Bank Indonesia (RIVIBI) towards the vision of becoming the foremost central bank. Digitalization of Bank Indonesia includes three important interrelated and mutually strengthening parts (Scheme 19). First, the digitalization of work processes, including policies and institutions as described above. Digitalization of work processes allow work collaboration to be faster, more effective and efficient, and allows working virtually from home or different other places. Second, data digitalization to enable users to experiment and innovate on their own (customer experience) for instant, interactive, and multidimensional uses for policy analysis and formulation. End-to-end data digitalization and innovation, starting from structured data inputs and big data technology,

Scheme 19. Digital Transformation at Bank Indonesia



Source: Bank Indonesia

metadata processing, storage in data lakes, data analytics and management of data scientists, to the use of applications that drive the customer experience and innovation in analysis and policies. Third, development of a technology platform that enables data digitalization and innovation as well as digitalization of the policy and institutional work processes, as well as an omni-technology platform that allows several core applications to be interconnected and integrated with the support of adequate cybersecurity. To realize digital transformation, organizational improvements have been made by reorganizing the existing work units into three new departments, namely the digital development and innovation department, the digitalization and data innovation department, and the digital services and cybersecurity department.

The planned, programmed, and transparent transformation of human resources continues to strengthen leadership with integrity, competence, professionalism, agility, and ethics at Bank Indonesia. Many human resources (HR) transformations have been successfully achieved since 2018 with mature merit-based HR planning, clear and transparent career management, rigorous selection of the talent pool in accordance with person-to-job fit, tiered leadership programs from nonofficers to officers and the top management, education and training programs for technical competency development as well as master's and doctoral scholarships, all of which are supported by the provision of competitive remuneration, welfare facilities, and post-employment benefits that are competitive with the market. In addition to further strengthening these programs, future HR transformation will be more focus on strengthening visionary leadership characteristics with the ability for strategic foresight leadership who are agile towards change, as well as ethical behavior according to national and spiritual values and their respective religion. Strengthening competencies is emphasized with the ability to adapt to digitalization, including technical competencies relating to data analytics and data scientists as well as aspects of behavior and mindset, while strengthening leadership exposure through coordination and assignments to other institutions at home and abroad. Strengthening the employee value proposition and the BI-Achievement, BI-Innovation, BI-Digital, and BI-Religi work culture programs emphasize building pride, creativity, recognition, and incentives for achievements and collaboration as leaders and employees of Bank Indonesia. Equally important is the development of an atmosphere, relationships and work facilities that are more supportive of digitalization and also the behavior of millennial employees, including hybrid work processes that will be maintained.

Moving Forward with Optimism and Vigilance: Strong, Recover, and Revival Towards Advanced Indonesia

Synergy and innovation have been the key factor for Indonesia to survive the impact of the Covid-19 pandemic and global turmoil, and further optimism for the ongoing recovery and economic revival in 2023 and beyond. Optimistic that economic stability will be maintained, and the economic recovery will continue to accelerate. Vigilant of the possibility that the global turmoil could persist, with all its adverse impacts to the national economic performance. Therefore, the synergy between Bank Indonesia, the central and regional government and Financial System Stability Committee will be improved to strengthen the resilience, recovery, and revival of the national economy moving forward. Bank Indonesia will also continue and maintain the strong synergy with the House Representatives of the Republic of Indonesia, particularly Commission XI, the banking industry, businesses, academia, the media, and other strategic partners. An innovative monetary, macroprudential and payment system policy mix will be deployed in pursuit of striking an optimal policy response to the dynamic global economy, thereby maintaining national economic resilience, recovery momentum, and revival.

In closing, let us move forward with optimism and vigilance, by continuously strengthening synergy and innovation. Through synergy and innovation, Indonesia's economic outlook will improve. Strong synergy in the national economic policy mix, fiscal-monetary coordination, acceleration of the real and financial sectors transformation, as well as innovation and acceleration of the digital economy and finance. To that end, let us continue strengthening synergy and innovation for economic resilience, recovery, and revival moving forward. Let us continue working, together we raise and spread hope, confidence, and optimism for the recovery of the national economy towards Advanced Indonesia. May *Allah subhanahu wa ta'ala*, God Almighty, always provide guidance, convenience, perfection and blessings to Indonesia, our nation and all of us.

Thank you
Wassalamualaikum warahmatullahi wabarakatuh,
Jakarta, 30 November 2022

Perry Warjiyo
Governor Bank Indonesia

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