BANK INDONESIA
BANK SENTRAL REPUBLIK INDONESIA

REVIVING BANKING INTERMEDIATION AMIDST GLOBAL UNCERTAINTY

FINANCIAL STABILITY REVIEW
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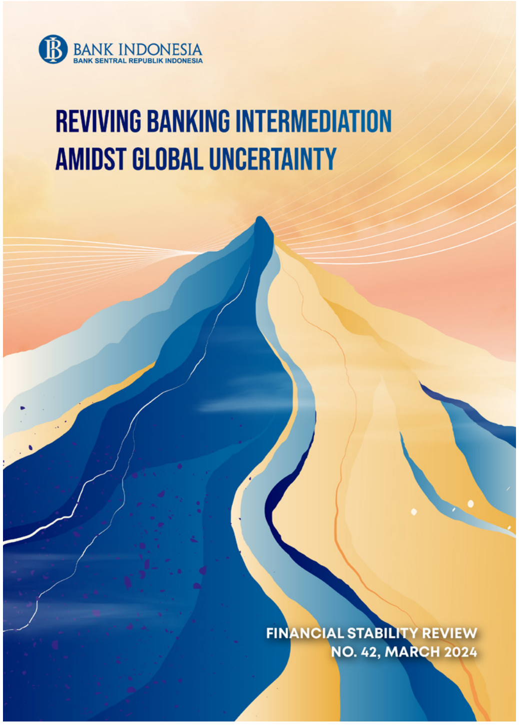

The gradation of orange and yellow colors represents hope and optimism, while the dark and light blue shades depict the depth and diversity of the financial sector. The interaction between the colors demonstrates Bank Indonesia's endeavor to strike a balance between economic stability and growth. The flowing lines and abstract shapes resembling water flow topography symbolize intermediation, capital flows, and information currents within the national economy, while also indicating Bank Indonesia's policy direction in the face of global uncertainty. Overall, this design portrays Bank Indonesia's continuous efforts to foster increased intermediation amidst global uncertainty and the institution's commitment to safeguarding Financial System Stability (FSS).

BANK INDONESIA

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MACROPRUDENTIAL POLICY DEPARTMENT

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List of Abbreviations

3K	Capacity, Quality, and Continuity
APBD	Regional Revenue and Expenditure Budget
APBN	State Revenue and Expenditure Budget
APC	Average Propensity to Consume
APIF	Awqaf Properties Investment Fund
ASEAN	Association of Southeast Asian Nations
Balinusra	Bali-Nusa Tenggara
BAZIS	Amil Zakat, Infaq, and Shadaqah Agency
BBWI	Proud to Travel in Indonesia
BI	Bank Indonesia
BISAID	Database Containing Profiles of MSMEs for Potential Financing
BKPM	Indonesia Investment Coordinating Board
BLT	Direct Cash Assistance
bps	basis points
BTB	Business to Business
BTC	Business to Consumer
CAF	Charities Aid Foundation
Capex	Capital expenditure
CAR	Capital Adequacy Ratio
CASA	Current Account and Saving Account
CCyB	Countercyclical Capital Buffer
CKPN	Provisions for Impairment Losses
Covid-19	Corona Virus Desease 2019
CPI	Consumer Price Index
CWLS	Cash Waqf Linked Sukuk
DaR	Debt at Risk
DAR	Debt to Asset Ratio
DER	Debt to Equity Ratio
DFS	Digital Financial Services
DHE SDA	Foreign Exchange Proceeds from Exports of Natural Resources
DSR	Debt Service Ratio
DSRS	Dynamic Systemic Risk Surveillance
EBITDA	Earning Before Interest, Taxes, Depreciation, and Amortization
EBUS	Debt Securities and/or Sukuk
EKD	Digital Economy and Finance
EMDEs	Emerging Market and Developing Economies
FCF	Free Cash Flow
FDS	Fraud Detection System
FESyar	Sharia Economic Festival
FFR	Fed Fund Rate
FinTech	Financial Technology
FSB	Financial Stability Board
FSS	Financial System Stability
FSSI	Financial System Stability Index
GDP	Gross Domestic Product
Gernas BBI	National Movement of Proud of Indonesian Products
GNPIP	National Movement for Food Inflation Control
GR	Gearing Ratio
GWM	Statutory Reserve Requirement
HVC	Halal Value Chain
ICR	Interest Coverage Ratio
IDX	Indonesia Stock Exchange
IHKEI	Export Commodity Price Index

IHOB	Indonesia House of Bean
IKK	Consumer Empowerment Index
IKRA	Sharia Creative Industry
IMF	International Monetary Fund
IMTI	Indonesia Muslim Friendly Tourism Index
IN2MF	Indonesia International Modest Fashion Festival
INFRATANI	Integrated Farming with Technology Information and Society
IPO	Initial Public Offering
IsDB	Islamic Development Bank
ISEF	Indonesia Sharia Economic Festival
ITSK	Financial Sector Technology Innovation
JCI	Jakarta Composite Index
JPH	Halal Product Assurance
KBMI	Bank Group Based on Core Capital
KKB	Automotive Loans
KPR	Housing Loans
KKI	Indonesia Creative Works Exhibition
KLHK	Ministry of Environment and Forestry
KPI	Key Performance Indicator
KSEI	Indonesia Central Securities Depository
KSSK	Financial System Stability Committee
KUPVA	Foreign Exchange Business Activity
KUR	People's Business Loans
LA	Liquid Asset
LA/D	Liquid Assets to Deposits
LAPS	Alternative Dispute Resolution Institutions
LaR	Loan at Risk
LBUT	Integrated Commercial Bank Report
LCR	Liquidity Coverage Ratio
LPS	Indonesia Deposit Insurance Corporation (IDIC)
LRI	Lending Requirements Index
LSI	Lending Standards Index
LTV/FTV	Loan to Value/Financing to Value
MATRIC	Massive, Technology-based, Responsive, and Customer Centric
MCF	Multichannel Financing
MFT	Muslim-friendly Tourism
Minerba	Mineral and Coal
MIR	Macroprudential Intermediation Ratio
MLI	Macroprudential Liquidity Incentive policy
MMCF	Macroprudential-Microprudential Coordination Forum
MoF	Ministry of Finance
MPLB	Macroprudential Liquidity Buffer
MRSI	Risk Management and Information System Security Standards
MSME	Micro, Small, and Medium Enterprises
mtm	month to month
NARX	Nonlinear Autoregressive Network with eXogenous input
NBFI	Non-bank Financial Industry
NDC	Nationally Determined Contribution
NPF	Non-performing Financing
NPL	Non-performing Loan
NPM	Net Profit Margin
NSFR	Net Stable Funding Ratio
OJK	Indonesia Financial Services Authority
P2SK Act	Act Number 4 of 2023 concerning Finacial Sector Development and Strengthening
PBI	Bank Indonesia Regulation
PD	Probability of Default
PDN	Domestic Product
PeKA	Care, Recognize, and Report

Pemda	Regional Government
PIP	Payment System Infrastructure Operators
PJP	Payment System Providers
PKB	Automotive Financing
PLJP	Short-Term Liquidity Assistance
PLJPS	Sharia-Compliant Short-Term Liquidity Assistance
PLR	Prime Lending Rate
PNM	PT Permodalan Nasional Madani
PPKSK Act	Act Number 9 of 2016 concerning Financial System Crisis Prevention and Mitigation
PPN-DTP	Government-borne Value Added Tax (PPN-DTP)
PSN	National Strategic Project
PSPK	Critical Payment System Provider
PSPS	Systemic Payment System Provider
PSPU	General Payment System Provider
PTD-BB	Non-Bank Fund Transfer Company
QRIS	Quick Response Code Indonesian Standard
RBC	Risk-Based Capital
ROA	Return on Asset
ROE	Return on Equity
RPIM	Macroprudential Inclusive Financing Ratio
RPOJK	Draft of OJK Regulation
RPP	Draft of Government Regulation
RSEOJK	Draft of OJK Circular Letter
SBI	Bank Indonesia Certificates
SBN	Government Securities
SDGs	Sustainable Development Goals
SIAPIK	Financial Information Recording Application Information System
SIKP	Credit Information System Program
SJK	Financial Services Sector
SLKU	MSME Financial Report Survey
SMART-MFT Hub	Sustainable Muslim Attractive Tourism – Muslim Friendly Tourism Hub
SML	Supervised Machine Learning
SNEKI	National Economic and Financial Inclusion Strategy
SNPKBI	Bank Indonesia's National Consumer Protection Survey
SRBI	Bank Indonesia Rupiah Securities
SukBI	Bank Indonesia Sukuk
Sulampua	Sulawesi-Maluku-Papua
SULNI	Indonesia External Debt Statistics
SUVBI	Bank Indonesia Foreign Currency Sukuk
SVBI	Bank Indonesia Foreign Currency Securities
TPID	Regional Inflation Control Team
TPIP	Central Inflation Control Team
TWP90	Measure of default on the settlement of loans stated in agreement above 90 days from the maturity date
US	United States of America
UUS	Sharia Business Unit
WGI	World Giving Index
yoy	year on year
ytd	year to date
ZISWAF	Zakat, Infaq, Shadaqah, and Waqf

BANK INDONESIA

Foreword

Perry Warjiyo
Governor of Bank Indonesia

Praise and gratitude to God Almighty for His grace in the development of the Financial Stability Review No. 42, March 2024 Edition, "Reviving Banking Intermediation Amidst Global Uncertainty." This in-depth study, which provides an overview of the current condition and prospects of the Indonesian financial system based on a three-pillar assessment of macroprudential policy (intermediation, resilience, and economic and financial inclusion), serves as a valuable tool for Bank Indonesia's policy communication.

Despite the global economic turmoil and uncertainty, the domestic economic conditions in 2023 demonstrated robust growth. The main challenges, such as protracted geopolitical issues and high central bank policy rates in many countries, were effectively managed. The domestic economic performance continued to improve, with Rupiah stability maintained and inflation within the target range.

Similarly, Financial System Stability (FSS) was maintained. Notably, financial system intermediation shows credit growth with manageable credit risk, supported by solid capital resilience and adequate liquidity. The role of the financial sector in economic financing remains vital in supporting credit demand for businesses and households.

Throughout 2023, Bank Indonesia consistently implemented a policy mix, i.e., macroeconomic stability maintained through monetary policy while stimulating economic growth through macroprudential policy, payment system, money market deepening, and an inclusive and green financial economy policy. Accordingly, pro-growth macroprudential policy was primarily pursued through strengthening the Macroprudential Liquidity Incentive Policy (MLI), namely increasing incentives for bank lending, particularly in sectors with high leverage on economic growth. Strengthening the MLI policy is considered effective in maintaining high credit growth. In addition to the MLI, Bank Indonesia also relaxed the Macroprudential Liquidity Buffer (MLB) policy to increase liquidity in credit funding. To enhance policy effectiveness, Bank Indonesia conducts supervision and constantly strengthens synergy with the government, financial authorities, and other institutions. Policy coordination will be strengthened through the Financial System Stability Committee to mitigate financial system risks and support the role of financial intermediation institutions in financing the economy. Bank Indonesia continuously synergizes and coordinates with the Financial

Services Authority (OJK) and the Indonesia Deposit Insurance Corporation (LPS) to maintain financial system stability.

Going forward, several challenges require close monitoring and proactive policy responses, including high global uncertainty and its impact on the domestic economy and the potential widening of the bank funding gap due to slower growth in bank deposits. Within Bank Indonesia's 2024 policy mix framework, an accommodating macroprudential policy will be maintained to support economic growth. This accommodative macroprudential policy direction aligns with the economic and financial cycle, which is still in an expansion phase.

We hope that the Financial Stability Review No. 42, beyond providing an overview of the current condition and prospects of the financial system, can also serve as a valuable reference point for decision-making as we work together to encourage increased intermediation amid global uncertainty.

Jakarta, March 2024

Governor of Bank Indonesia
Perry Warjiyo

EXECUTIVE SUMMARY

REVIVING BANKING INTERMEDIATION AMIDST GLOBAL UNCERTAINTY

Financial system stability in 2023 was maintained despite persistent global uncertainty. This is evidenced by maintained financial system resilience, reflected in the Financial System Stability Index (FSSI) remaining in the normal zone throughout 2023 with increasing intermediation. Bank Indonesia consistently implemented a policy mix, i.e., macroeconomic stability maintained through monetary policy while stimulating economic growth through macroprudential policy, payment system, money market deepening, and an inclusive and green financial economy policy. Bank Indonesia's policy mix was further strengthened by innovation, synergy, and coordination with the government, relevant authorities, and other strategic partners.

Indonesia's financial system faced a global economic slowdown and growth divergence. Recovery optimism in early 2023 was gradually waning in line with the continuing scarring effect and increasing geopolitical-economic fragmentation. Growth divergences between countries also marked global economic performance in 2023. The United States (US) and India's economies remained strong, while China experienced slow down. Inflation declined in the advanced economies but still above its target. The high US Fed Fund Rate (FFR) in the 5.25-5.50% range is predicted to remain high for longer until the first half of 2024. The strong US dollar pressure caused all world currencies to depreciate. In response, Bank Indonesia consistently takes stabilization measures so that the rupiah appreciates better than the currencies of several regional countries. On the other hand, the domestic economy in 2023 remained strong and resilient amidst challenges due to the propagation impact of the economic slowdown and increasing pressure on global inflation with growth of 5.05%, primarily driven by accelerated government spending at the end of the year and accelerated completion of several National Strategic Projects (PSN).

Bank intermediation remained solid in 2023, supported by maintained risk appetite and adequate liquidity. Bank loans at the end of 2023 grew by 10.38% (yoy), moderating from 11.35% (yoy) in 2022, but relatively improved compared to 7.76% (yoy) in the previous semester. The increase in bank loan growth was supported by productive loans, both Working Capital Loans and Investment Loans, primarily in the corporate segment. Improved intermediation performance occurred in most economic sectors, primarily the Trade, Transportation, and Electricity, Gas and Water Supply sectors. On the demand side, positive corporate sales growth boosted demand for corporate loans, especially the Working Capital Loans. The increase in bank loan was also supported by increasing demand for consumer loans, especially housing loans. On the supply side, intermediation improvements were supported by risk appetite and adequate liquidity in the banking industry, as reflected by a relatively stable Lending Standard Index (LSI) and a loose Lending Requirement Index (LRI). Meanwhile, the increase in the policy rate in the second semester of 2023 had a limited impact on the increase in rupiah lending rates, thus contributing to maintained credit growth in 2023. In line with banking, NBFI intermediation also showed positive developments, especially in finance companies and PT Pegadaian. NBFI intermediation was also driven by the rise of financing innovations based on digital platform ecosystems such as e-commerce distributed by finance companies and financial technology (fintech).

The increase in banking intermediation faces the challenge of a funding gap, hence demanding the strengthening of non-deposit funding as an alternative funding. At the end of 2023, bank deposits grew by 3.73% (yoy), slower than in 2022. In line with the slower growth of bank deposit compared to loan growth, the funding gap at the end of 2023 widened to the highest level since 2010. Meanwhile, non-deposit funding sources in 2023 remained stable compared to the previous year. The increase in non-deposit sources of funds in 2023 occurred in loans received and the value of debt securities and/or Sukuk (EBUS) issuance, although the outstanding securities decreased, in line with the increasing yield of securities. On the other hand, banks' external debt experienced contraction across almost all bank groups due to higher global interest rates.

On the demand side, bank intermediation growth was supported by corporate and household performance. Amidst ongoing global challenges, corporate sales performance throughout 2023 recorded positive growth, thereby boosting demand for corporate loans, particularly Working Capital Loans. In addition, loan growth was also driven by demand for corporate Investment Loans in line with positive capital expenditure (Capex) growth despite facing challenges from high for longer conditions and wait-and-see behaviour in response to uncertainty ahead of the 2024 general election. Bank loan growth was also supported by increasing demand for household consumer loans in line with maintained performance and optimism of household's income expectations. In addition, fiscal incentive policy in the form of Government-borne Value Added Tax (PPN-DTP) contributed to an increase in residential property purchases, thereby promoting demand for housing loans.

Financial sector resilience was maintained in line with controlled risks supporting intermediation growth. Banking resilience was reflected in declining credit risk, strong capital, and ample liquidity. Bank credit risk was maintained with an aggregate Non-Performing Loan (NPL) ratio of 2.19%, decreasing from 2.44% the year earlier. Despite the overall decline in credit risk, the banking industry continued to strengthen risk mitigation efforts by forming relatively high provisions for impairment losses and maintaining high Capital Adequacy Ratio (CAR). Banking liquidity provides ample room to boost further loan growth. The Liquid Assets to Bank Deposits (LA/D) ratio recorded high at 28.73% in 2023. In terms of NBFI, the resilience of Financing Companies, Fintech Lending, Pegadaian and Venture Capital Firms was well maintained, reflected in good capital conditions and controlled financing risks. Likewise, Insurance and Pension Funds showed positive performance. The potential for risk spillover from the NBFI to the banking sector was relatively limited due to the relatively small interconnectedness between the NBFI and banks. The rapid development of digitalisation of financial services by both banks and NBFI has the potential to increase cyber risk vulnerability. Strengthening resilience and cybersecurity for financial service providers regulated and supervised by Bank Indonesia is crucial in anticipating such vulnerabilities.

Corporate and household resilience was well maintained, supporting stable repayment capacity. Corporate resilience was reflected in maintained repayment capacity with adequate Interest Coverage Ratio (ICR) in aggregate of 2.11 times, improved Probability of Default (PD), and maintained Debt at Risk (DaR) ratio. However, the decline in corporate excess saving in several sectors coupled with high debt growth and declining sales needs to be observed. In the household sector, credit risk was maintained on the back of fiscal incentive policy and increasing income that encouraged maintained repayment capacity as reflected in a stable Debt Service Ratio (DSR).

To achieve sustainable economic growth, Bank Indonesia consistently strives to improve economic and financial inclusion. On the intermediation side, inclusive financing showed a positive development. In 2023, loans to Micro, Small, and Medium Enterprises (MSMEs) grew by 8.03% (%yoy) with a manageable level of risk, supported by the People's Business Loan (KUR) government program and MSMEs business performance. Loans to MSMEs was also supported by the role of NBFI, especially finance companies and fintech, to capture the large potential of unbanked MSME players, including the ultra-micro segment. The spirit of increasing economic and financial inclusion was also encouraged through inclusive Islamic financing which grew positively both through the sharia commercial finance sector and sharia social finance. Bank Indonesia continued to strengthen the economic and financial inclusion development strategy, through four strategic pillars, namely economic empowerment, expanding access and financial literacy, increasing access to financing, and consumer protection.

The macroprudential policy directed to support sustainable economic growth (pro-growth) through policy consistency and innovation. Accommodative macroprudential policy was maintained to revive financing to corporate and household sectors. In 2023, Bank Indonesia set a macroprudential policy stimulus through the implementation of the Macroprudential Liquidity Incentive (MLI) policy to encourage financing to sectors with higher economic leverage. Loose macroprudential policy was strengthened by continuing the easing of Loan To Value/Financing To Value (LTV/FTV) and reducing the Macroprudential Liquidity Buffer (MPLB) ratio to provide flexibility in liquidity management by banks for loan disbursements. Other pro-growth macroprudential policies were carried out by maintaining the Countercyclical Capital Buffer (CcyB) ratio, the Macroprudential Intermediation Ratio (MIR), and the deepening of Prime Lending Rate (PLR) transparency policy. To maintain macroeconomic and financial system stability, Bank Indonesia continued to strengthen synergy and coordination with the Government, relevant authorities, and other strategic partners. National policy coordination through the Financial System Stability Committee (KSSK) continued to be strengthened to mitigate various risks that could potentially disrupt financial system stability while also reviving financing to business, especially in priority sectors. Bank Indonesia's synergy and coordination with the Financial Services Authority (OJK) and the Indonesia Deposit Insurance Corporation (LPS) were also carried out continuously in order to maintain financial system stability.

Bank Indonesia strengthened policy transformation in accordance with the mandate of Act No. 4 of 2023 concerning Financial Sector Development and Strengthening (P2SK Act). In the macroprudential policy area, Bank Indonesia strengthened the implementation of loose macroprudential policy in 2023 to stimulate sustainable economic growth through the issuance and implementation of the MLI provisions. Refinement of the provisions on Short-Term Liquidity Assistance (PLJP) and Sharia-Compliant Short-Term Liquidity Assistance (PLJPS) was also carried out within the framework of strengthening the resolution of issues faced by banks experiencing a liquidity mismatch. Policy transformation by Bank Indonesia also included strengthening various regulations, such as consumer protection regulations, money market and foreign exchange market regulations, as well as provisions for the issuance of instruments and transactions in the money market. Bank Indonesia will continue to strengthen regulations through the establishment of implementing regulations as stipulated in the P2SK Act.

Moving forward, financial system stability is expected to be maintained with improved intermediation performance amidst global uncertainty that is predicted to persist in 2024. High for longer monetary policy tightening and persistently high inflation pose challenges for central banks globally. Such conditions result in the forecast of 3.0% global economic growth in 2024. On the other hand, the domestic economy is predicted to improve with growth increasing to 4.7-5.5% in 2024. Rising economic growth expectations, controlled inflation, conducive interest rates, and continued national strategic projects support optimism for credit growth. Going forward, banking intermediation will also be supported by strong banking resilience through low credit risk and strong capital. On the demand side, corporate financing is expected to increase in line with better economic growth prospects. In addition, resilient household consumption has also increased demand for consumer loans. In terms of inclusion, MSME loan growth is predicted to increase in line with improving MSME performance and the KUR program that continues in 2024. Consequently, banking intermediation is projected to accelerate to 10-12% in 2024 and continue to accelerate to the 11-13% range in 2025.

Bank Indonesia will maintain a pro-growth macroprudential policy stance combined with strengthening synergy between financial system authorities, the Government, and strategic partners. The direction of loose macroprudential policy is in line with the economic and financial cycles that are still in an expansion phase. In line with the pro-growth macroprudential policy, Bank Indonesia conducts indirect supervision (surveillance) and direct supervision (inspections) on a thematic basis to ensure financial system resilience. To support pro-growth policy, Bank Indonesia will continue to strengthen synergy across financial sector authorities in the KSSK and bilateral synergy between Bank Indonesia-OJK and Bank Indonesia-LPS. Synergy is aimed at anticipating the potential propagation of global and domestic uncertainty into the domestic financial system.

BANK INDONESIA

Chapter 1

GLOBAL AND DOMESTIC MACROFINANCIAL DEVELOPMENTS AND CHALLENGES

Global economic growth weakened, accompanied by widening growth divergence between countries and world currencies depreciation. This divergence was pronounced between advanced economies, particularly the United States (US), and Emerging Market and Developing Economies (EMDEs), especially China. Inflation remained above the target in 2023, limited the central bank's room to lower policy rates and stimulate economic growth. On the other hand, high yields on long-term global bonds encouraged capital outflows, thus putting depreciation pressure on world currencies. However, stabilization measures taken by Bank Indonesia have successfully strengthened Rupiah, outperformed the currencies of several regional and global counterparts.

Indonesia's economy experienced growth across most GDP components in 2023. Economic growth was driven by increased household consumption, investment, and export. Correspondingly, transportation and storage, accommodation and food service activities, as well as wholesale and retail trade sectors showed significant growth. On the other hand, inflation eased at a faster pace and under control within the target range.

Financial system stability maintained on the back of strong loan growth. This achievement was supported by the trend of aggressive lending and well-maintained liquidity conditions in the banking industry. Banking sector resilience has been well maintained, as reflected in the Financial System Stability Index (FSSI), which was in the normal zone throughout 2023.

1.1 Global Economic Growth Weakened with Growth Divergence

Global economic growth slowed accompanied by widening growth divergence between countries. After a strong performance of 3.5% (yoy) in 2022, global economic growth in 2023 is predicted to decline to 3.1% (yoy) (Table 1.1.1). Recovery optimism in early 2023 gradually waned in line with the lingering scarring effect and increasing geopolitical and economic fragmentation. Global economic performance in 2023 was also marked by growth divergence between advanced economies, especially the US which grew higher than expected, while EMDEs, especially China, which experienced slow down due to weakening consumption and declining property sector performance.

Global inflation eased at a slower pace than predicted. Global inflation in December 2023 decreased to 6.8% (yoy) from the highest level in the second quarter of 2022. The decline in inflation was consistent with lower energy and food prices, easing supply chain constraints, and the impact of central bank monetary policy tightening in many countries. Nevertheless, due to the tight labor market, inflation in various countries persisted above target level.

High policy rates will continue for longer. In the US, the Fed Fund Rate (FFR) is expected to be maintained until the first half of 2024. Similar trend evident in Europe and Britain. High interest rates in AEs constrained central banks in EMDEs to cut policy rates in order to boost economic growth, despite inflation in some countries has reached the target. Nevertheless, central banks in Latin America, which have been early and aggressively tightening monetary, have begun to lower interest rates.

Long-term global bond yields rose sharply, prompted capital outflows. This condition stemmed from the need for fiscal financing and US government debt, which triggered global portfolio investors to move their funds from risky securities to liquid instruments. Consequently, capital flowed out of EMDEs, strengthened the US dollar and put depreciation pressure on various world currencies.

Rupiah stability maintained amidst global currency depreciation. High-interest rates and large capital flows to the US put pressure on currency depreciation of almost all world currencies, such as the Japanese Yen, Chinese

Table 1.1.1 Global Economic Growth

Country	(%. yoy)					
	2019	2020	2021	2022	2023	2024*
World	2.8	-2.8	6.3	3.5	3.1	3.0
Advanced Economies	1.7	-4.2	5.6	2.6	1.6	1.6
United States	2.3	-2.8	5.9	1.9	2.5	1.9
Euro Area	1.6	-6.1	5.6	3.4	0.5	0.8
Japan	-0.4	-4.2	2.2	1.0	1.9	1.1
Emerging Economies	3.6	-1.8	6.9	4.1	4.1	3.9
China	6.0	2.2	8.4	3.0	5.2	4.5
India	4.8	-6.6	8.3	6.8	6.8	5.9
ASEAN-5	4.3	-4.4	4.0	5.5	4.4	4.6
Latin America	0.2	-7.0	7.4	4.2	2.5	2.0
European EMs	2.5	-1.6	7.3	1.2	2.7	2.7
Middle East and Central Asia	1.6	-2.6	4.3	5.5	2.0	3.0

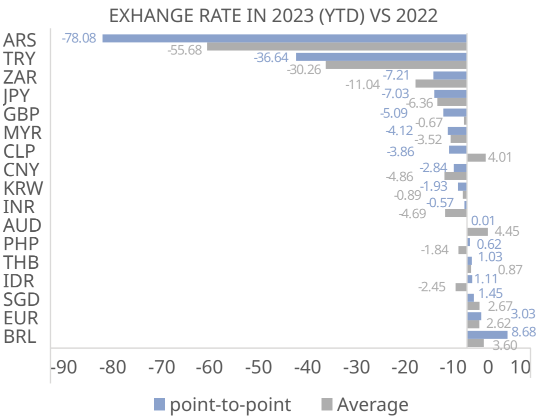
Source: IMF, WEO, processed

*Bank Indonesia projections

Yuan, and British Pound Sterling which weakened by 7.03%, 2.84%, and 5.09% (ytd) respectively, as well as the depreciation of regional currencies, such as the Malaysian Ringgit and Indian Rupee by 4.12% and 0.57% (ytd) respectively. Nevertheless, stabilisation measures taken by Bank Indonesia managed to make the rupiah exchange rate appreciate by 1.11% (ytd), better than the depreciating currencies of several countries in the region and globally (Graph 1.1.1).

Bank Indonesia will continue to strengthen its exchange rate stabilisation policy. This policy aims to support efforts to control imported inflation and maintain macroeconomic and financial system stability. In addition to interventions in the foreign exchange market, Bank Indonesia has accelerated efforts to deepen both the rupiah money market and foreign exchange market, including through optimisation of Bank Indonesia Rupiah Securities (SRBI), Bank Indonesia Foreign Currency Securities (SVBI), and Bank Indonesia Foreign Currency Sukuk (SUVBI). This support is expected to improve liquidity management of domestic financial institutions and attract foreign portfolio inflows from abroad. Coordination efforts will continue to be improved and expanded. This includes collaboration with the Government, banking industry, and the business community. The goal is to improve the implementation of the Government Regulation (PP) Number 36 of 2023 concerning the Exports Proceeds from Natural Resources Goods (DHE SDA).

Graph 1.1.1 Currency Movement Against USD



Note: Data as of 29 December 2023
Source: Reuters and Bloomberg, processed

1.2 Domestic Economic Growth Remained Strong Amidst Global Uncertainty

Indonesia's economy continued to expand and remained resilient. The economy grew by 5.04% (yoy) in the fourth quarter of 2023, higher than the 4.94% (yoy) recorded in the previous quarter. Consequently, Indonesia's economic growth in 2023 was recorded at 5.05% (yoy).

Economic growth occured in almost all components of GDP. Household consumption grew by 4.47% (yoy) in line with increased mobility, especially during the national religious holidays Christmas and new year, stable public purchasing power, and increasing consumer confidence (Table 1.2.1). Accordingly, Consumption Expenditures of Non-profit Institutions that serve Households grew strongly by 18.11% (yoy) on the back of increasing election preparation activities. Government Consumption Expenditures grew by 2.81% (yoy) driven by spending on goods and employees. Meanwhile, investment grew by 5.02% (yoy), mainly supported by building investment in line with continued infrastructure development and increasing investment activity. Furthermore, exports grew by 1.64% (yoy) on the back of demand from major trading partners that continued to grow positively amid lower prices of leading export commodities, as well as improved service exports in line with the increasing number of foreign tourists.

Economic sectors performance grew in most region. All economic sectors in the fourth quarter of 2023 showed positive performance with highest growth recorded in mobility-related sectors, especially transportation and storage, accommodation and food service activities, and wholesale and retail trade. Manufacturing as the main contributor to growth also grew well in line with strong domestic and global demand. In line with that, growth in most regions of Indonesia was recorded higher than the previous quarter. The highest economic growth was recorded in the Sulawesi-Maluku-Papua (Sulampua) region, followed by Kalimantan, Java, Bali-Nusa Tenggara (Balinusra), and Sumatra.

Inflation fell faster and was controlled within the target range. Consumer Price Index (CPI) inflation in December 2023 was recorded at 2.61% (yoy), significantly lower than the 5.51%

Table 1.2.1 Indonesia's Economic Growth

Component	(%, yoy)										
	2021	2022*				2022*	2023**				2023**
		I	II	III	IV		I	II	III	IV	
Household Consumption	2.01	4.35	5.52	5.40	4.50	4.94	4.53	5.22	5.05	4.47	4.82
Government Consumption	4.25	-6.60	-4.61	-2.50	-4.72	-4.47	3.31	10.47	-3.93	2.81	2.95
Gross Domestic Capital Formation (GFCF)	3.80	4.08	3.09	4.98	3.33	3.87	2.11	4.63	5.77	5.02	4.40
Export	17.99	14.40	16.32	19.09	14.95	16.23	11.74	-2.91	-3.91	1.64	1.32
Import	24.86	16.06	13.06	25.73	6.49	15.00	4.15	-3.23	-6.75	-0.15	-1.65
GDP	**3.70**	**5.02**	**5.46**	**5.73**	**5.01**	**5.31**	**5.04**	**5.17**	**4.94**	**5.04**	**5.05**

Source: Statistics Indonesia, processed

*Preliminary figures
**Very preliminary figures

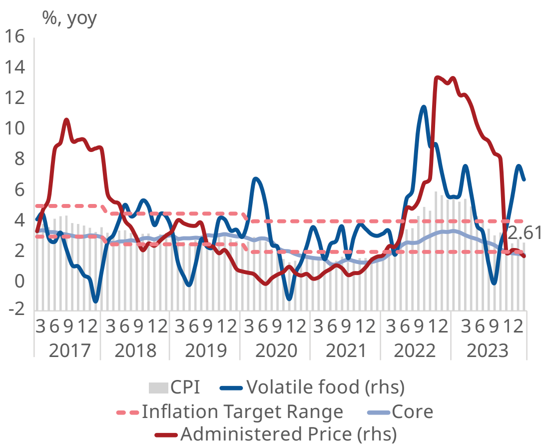
(yoy) recorded at the end of 2022. The return of inflation to the target range of 3.0±1% is a tangible result of pro-stability monetary policy consistency pursued coupled with close policy synergy between Bank Indonesia and the Central and Regional Governments.

Core inflation, volatile foods and administered prices were under control. Core inflation in 2023 was controlled at 1.80% (yoy) due to several factors, including low imported inflation, anchored inflation expectations within the target range, and sufficient economic capacity to respond domestic demand. Effective control of volatile food inflation at 6.73% (yoy) resulted from close synergy in inflation control between Bank Indonesia and TPIP and TPID. This synergy involved strengthening GNPIP in various regions to control food prices, mitigating the impact of external factors like El Nino. Inflationary pressures on administered prices also decreased to 1.72% (yoy) in line with the Government's fiscal policy which directed to be a shock absorber from the impact of global economic uncertainty on domestic economic resilience (Graph 1.2.1).

Bank credit growth was relatively high, supported by positive corporate and household performance and strong banking industry resilience. The banking industry recorded loan growth of 10.38% (yoy), which is within the target range of 9-11%. This increase in loan growth is in line with positive corporate performance and solid household financial conditions. Loan growth was also supported by strong banking industry resilience indicated by declining risk, strong capitalization and ample liquidity.

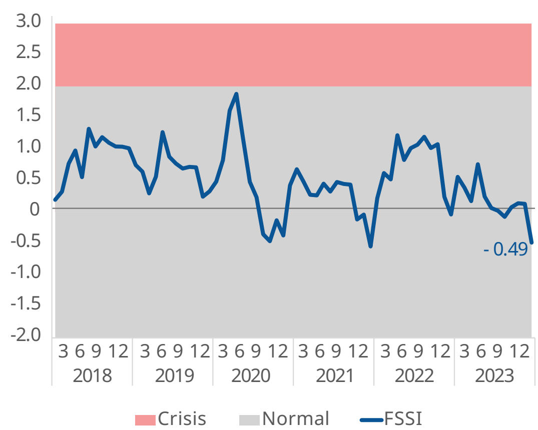
Financial system stability maintained, in line with lower credit risk and stronger bank capital. The Financial System Stability Index (FSSI) remained in the normal zone throughout 2023, stood at -0.49 in December 2023 (Graph 1.2.2). Strong capitalization, adequate liquidity, and reduced credit risk contribute to the sound FSSI. The bank's capital adequacy ratio stood at 27.66% in December 2023 (Graph 1.2.3). Meanwhile, non-performing loans were maintained at 2.19% (gross) and 0.71% (nett). Furthermore, the end of OJK's credit restructuring relaxation has had a limited impact on the banking industry. From

Graph 1.2.1 CPI, Core, Volatile Food, Adminitered Prices Inflation, and Target



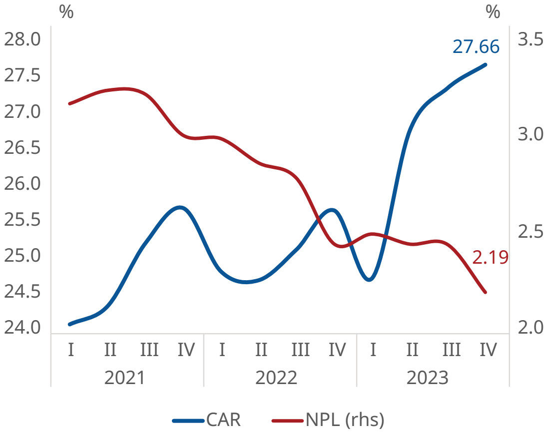
Source: Statistics Indonesia, processed

Graph 1.2.2 Financial System Stability Index



Source: Bank Indonesia, processed

Graph 1.2.3 Credit Risk and Bank Capital Adequacy Ratio



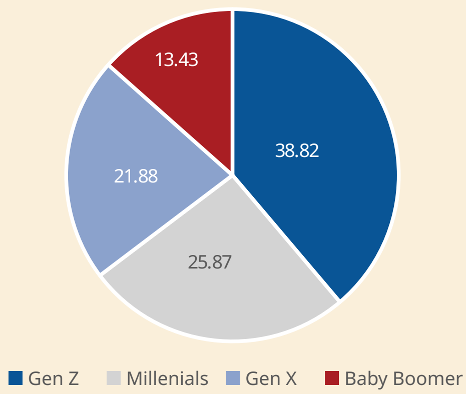
Source: Bank Indonesia and OJK, processed

the corporate and household side, credit risk was maintained with the probability of default (PD) of corporations continuing to ease and the high interest coverage ratio (ICR). Despite global challenges, namely the weakening of the property sector in China, the impact of its propagation on Indonesia's corporate performance was muted. Risks that need to be observed include declining corporate excess saving in several sectors, followed by high debt growth and declining sales.

Box 1.1 Demographic Transition Prompted Dynamics of Household Investment and Financing

Indonesia has entered the demographic bonus phase since 2015, which is expected to peak in 2020-2025. During this phase, the dependency ratio[1] is within the range of 45%, reaching its lowest point. This favorable demographic shift presents an opportunity for Indonesia to maximize the demographic bonus and achieve diverse development goals. According to the 2020 Population Census, more than half of Indonesia's population belongs to the young generation (Gen Z and Millennials)[2] which presents unique role: surplus and deficit in financing (Graph B1.1.1). According to the life cycle hypothesis, consumption behavior will change with age. People tend to borrow when young, save in middle age, and reduce consumption expenditures when they are older.

Graph B1.1.1 Indonesia Population Distribution by Generation



Source: 2020 Population Census, Statistics Indonesia (2021)

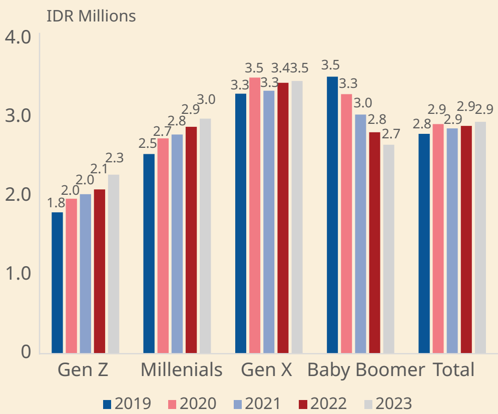
1 The dependency ratio is the ratio of the economically unproductive population (children and elderly) to the productive population (i.e. working age).

2 Generation in this article is grouped based on the year of birth: Gen Z (>1996), Millennials (1981-1996), Gen X (1965-1980), and Baby Boomers (<1965). The term "young generation" is used to refer to Gen Z and Millennials.

Therefore, the demographic bonus has the potential to increase supply and demand for financing. However, the difference in behavior between the young generation and other generations highlights the need for further analysis to optimize the financing potential of the young generation.

The increasing number of young people in Indonesia also encourages their greater role and contribution to the domestic economy. The income of the young generation continued to rise, while income for Gen X remained stagnant and that of the Baby Boomer generation declined (Graph B1.1.2). This trend aligns with the job profile of the young generation, who are primarily laborers or employees (Graph B1.1.2). The income of the young generation encouraged an increase in consumption, as indicated by the increase in the Average Propensity to Consume (APC) of the young generation throughout 2023.

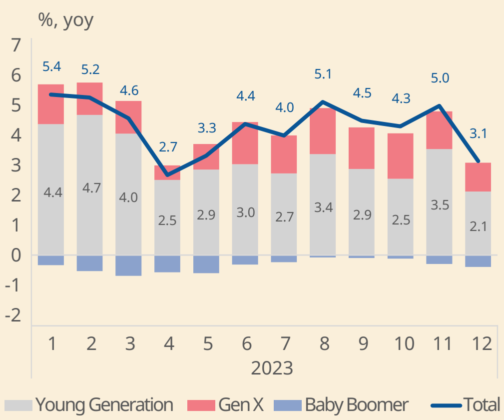
Graph B1.1.2 Individual Income by Generation



Source: Sakernas, Statistics Indonesia (2023)

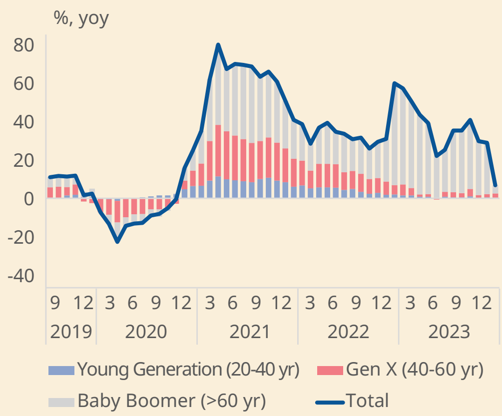
The growth of bank deposit[3] was mainly supported by the young generation and Gen X, while the growth of investment in other financial assets, such as bonds and stocks, was supported by the baby boomer generation. As the young generation and Gen X made up over 70% of total bank deposits, slower bank deposit growth throughout 2023 affected the overall slowdown in household bank deposit (Graph B1.1.3). This slowdown was influenced by the slowing growth of savings and deposits of the young generation. At the same time, baby boomers were still the main contributor of household investment value with a 65% share of investment asset ownership. However, from the number of investors, the young generation dominated investment in the capital market with a share of 69%, followed by Gen X at 27% and baby boomers at 5%. While investment from the young generation was expected to slow down in 2023, particularly in stocks, their investment in bonds remained stable (Graph B1.1.4). In addition, young generation also shows interest in non-traditional investments such as crypto, reflected in the number of crypto investors who are more than 80% of the younger generation.

Graph B1.1.3 Bank Deposit Growth by Generation



Source: Bank Indonesia, processed

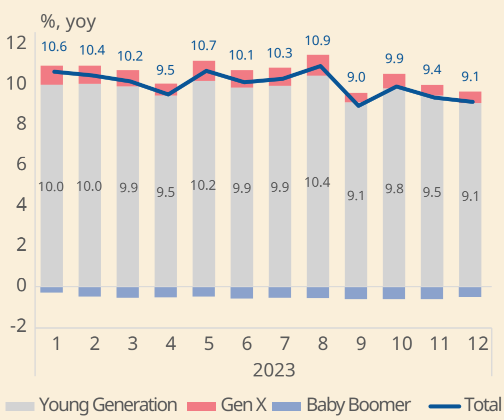
Graph B1.1.4 Investment Growth by Generation



Source: Bank Indonesia, processed

The young generation was the main contributor for consumer loan growth, with relatively low risk. Strong growth in consumption loans by young generation was the primary driver behind continued robust household consumer loan growth at 9.1% (yoy) in 2023 (Graph B1.1.5). Young generation consumer loans grew by 16.8% (yoy), higher than total bank loan growth, mainly from housing loans and multipurpose loans which had a share of 53% and 32% respectively. This high growth was accompanied by

Graph B1.1.5 Consumer Loan Growth by Generation



Source: Bank Indonesia, processed

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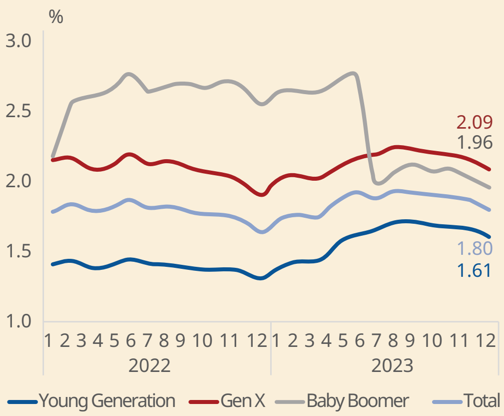
3 The term "bank deposit" refers to the "Third-Party Funds" (Dana Pihak Ketiga/DPK) as reported in Indonesia Banking Statistics

the lowest level of risk compared to other generations, with NPL of 1.61% in December 2023 (Graph B1.1.6).

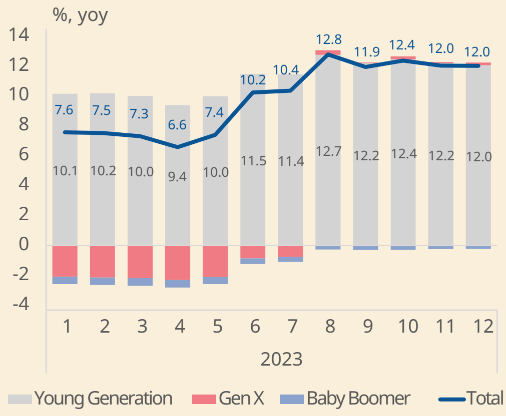
The housing needs of the young generation were driving the strong growth of housing. This aligns with the significant housing backlog faced by this generation, particularly due to a mismatch between their income and the offered house prices. This phenomenon suggests a large pool of potential young homeowners, creating a future opportunity for housing loan growth. In December 2023, housing loan growth reached 12% (yoy), a significant increase compared to growth in January 2023 of only 7.6% (yoy). Substantial amount of this growth was supported by the young generation, contributed 72% of total housing loan, with the dominance of house types being landed houses especially medium and large types (Graph B1.1.7). The positive prospect of housing loan is also supported by the lower risk of housing loans of the young generation compared to other generations. The NPL of young generation housing loan in December 2023 was recorded at 1.85%, lower than the NPL of overall housing loan (2.39%) and other generations.

Graph B1.1.6 NPL of Consumer Loan by Generation



Source: Bank Indonesia, processed

Graph B1.1.7 Housing Loan Growth by Generation



Source: Bank Indonesia, processed

The demographic bonus has the potential to be a catalyst for future growth in household financing. Recent analysis shows that the financial behavior of the young generation is starting to dominate, both in the aspects of savings and consumption financing. Therefore, an effective policy response is needed to harness the potential and mitigate risks from the financial and financing preferences of the younger generation, in order to stimulate economic growth and maintain financial stability.

Chapter 02

INTERMEDIATION GROWTH MAINTAINED

Positive credit growth in 2023 was supported by maintained risk appetite and ample liquidity in the banking industry. Bank loan growth in 2023 was driven by maintained appetite, as reflected in the relatively stable Lending Standards Index (LSI) and loose Lending Requirements Index (LRI). Positive loan growth was also supported by adequate banking liquidity, as reflected in the ratio of liquid assets to bank deposits (LA/D), which was higher than the average for the 2012-2019 period. In line with the bank intermediation function, non-bank financial industry (NBFI) intermediation also showed positive developments, especially in finance companies and PT Pegadaian.

On the other hand, bank deposit growth was comparatively slower than loan growth. This led to a widening of the funding gap to its highest level since 2010 and an increase in deposit rates, indicating tighter competition for funding sources. Amid slowing deposit growth and rising deposit rates, however, non-deposit sources remained relatively stable compared with the previous year. This stability reflects adequate banking liquidity to support intermediation. As new loan disbursements increase and excess liquidity decreases, strengthening non-deposit funding as an alternative will become crucial to maintain loan growth moving forward.

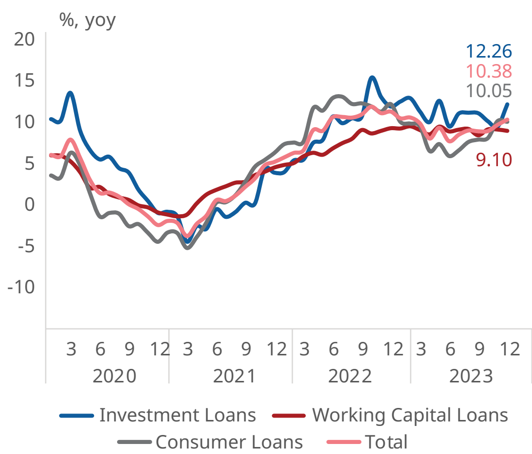
From the demand side, positive corporate performance drove demand for financing. Despite the impact of fluctuating global commodity prices, corporate sales remained positive, driving demand for corporate credit, particularly Working Capital Loans. Meanwhile, Investment Loan growth was still relatively well maintained in line with corporate investment growth, despite higher for longer policy rates and wait-and-see behaviour due to pre-election uncertainty.

Maintained household consumption and the support of fiscal incentives stimulated demand for Consumer Loans, especially Housing Loans. Overall household income improved, as reflected in higher employment, though informal workers remained dominant. The increase in income boosted household consumption optimism. Maintained household performance, accompanied by the support of the Government-borne Value Added Tax (PPN-DTP) policy, contributed to an increase in residential property purchases, driving demand for housing loans. Notably, housing loan rates remain attractive despite rising policy rates, further supporting the high demand.

2.1 Credit Growth Maintained

The banking industry's role in financial intermediation remained solid at the end of 2023, with positive loan growth. Bank loans grew 10.38% (yoy), moderating from 11.35% (yoy) in 2022. Credit growth was supported by state-owned banks and national private commercial banks (Graph 2.1.1). Additionally, Working Capital Loans saw a significant rise of 10.05% (yoy) (Graph 2.1.2). The corporate segment, which dominates the largest loan share, grew 13.52% (yoy) to become the main driver of loan growth in 2023. A breakdown by economic sector reveals positive growth in nearly all sectors. The corporate services, trade, and others (consumption) sectors were the key drivers of this expansion.

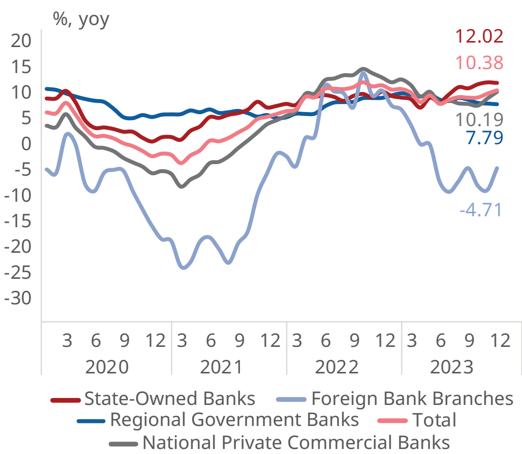
Graph 2.1.2 Loan Growth by Loan Type



Source: Bank Indonesia, processed

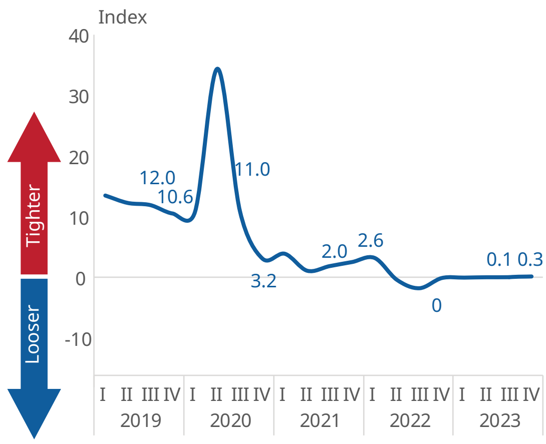
Banking intermediation grew positively in line with maintained risk appetite. This was confirmed by a relatively stable Lending Standard Index (LSI) throughout 2023 (Graph 2.1.3) with a loan disbursement policy that tended to be loose, particularly in terms of interest rates, loan maturity, and administration fees (Graph 2.1.4). The Lending

Graph 2.1.1 Loan Growth by Bank Group



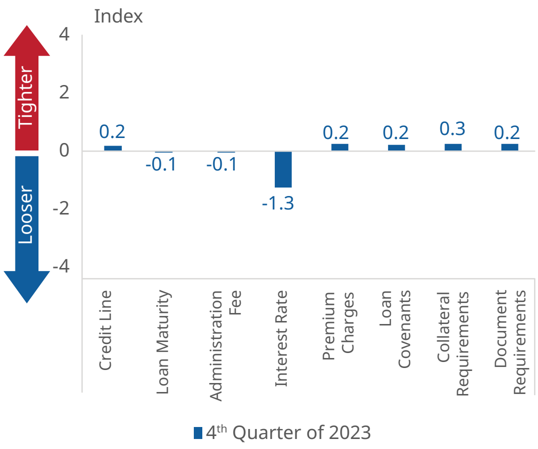
Source: Bank Indonesia, processed

Graph 2.1.3 Lending Standards Index (LSI)



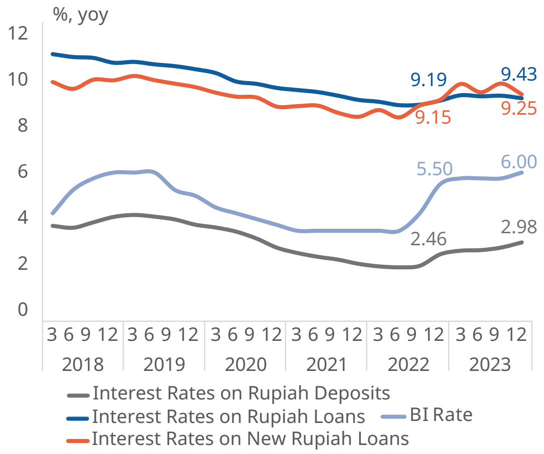
Source: Bank Indonesia, processed

Graph 2.1.4 Bank Lending Policy Change



Source: Bank Indonesia, processed

Graph 2.1.6 Bank Lending and Deposit Rates



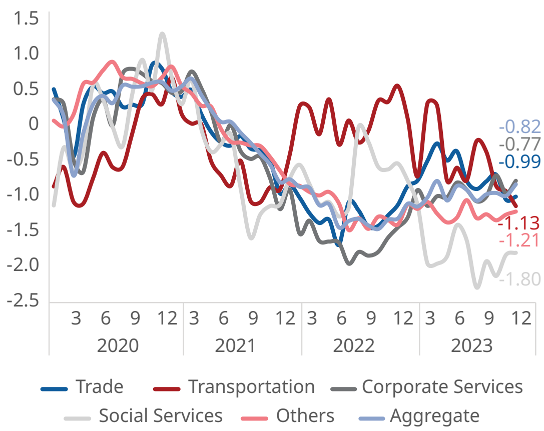
Source: Bank Indonesia, processed

Requirements Index (LRI) further corroborates this, implying loose lending requirements across most economic sectors (Graph 2.1.5).

Conducive lending rates also supported positive loan growth. Compared with the previous year, both the Rupiah lending rate and the new Rupiah loan lending rate increased by 10bps and 24bps, respectively, to 9.25% and 9.43% at the end of 2023 (Graph 2.1.6). This increase was lower than the 50bps hike in the policy rate to 6.0% at the end of 2023. In contrast, the Rupiah deposit rate rose more sharply, reflecting greater responsiveness to the policy rate with a 52bps increase throughout 2023, reaching 2.98% at year-end.

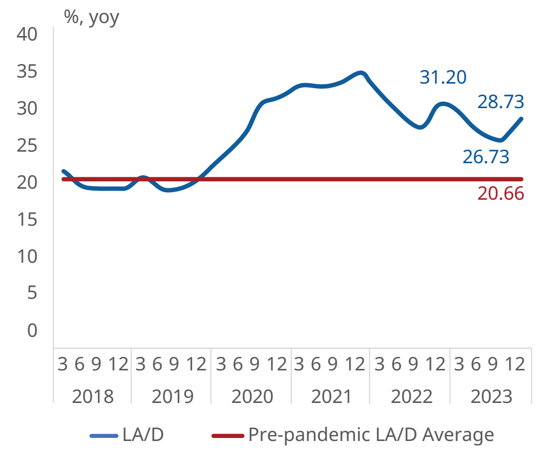
Banking liquidity was ample to support banking intermediation, as evidenced by the LA/D ratio at year-end 2023. This ratio stood at 28.73%, well above the 10% threshold, and the historical average for the 2012-2019 period of 20.66% (Graph 2.1.7). The LA/D ratio declined slightly compared to the end of 2022, however, due to a decrease in liquid assets from Rp2,543 trillion to Rp2,429 trillion.

Graph 2.1.5 Lending Requirements Index (LRI)



Source: Bank Indonesia, processed

Graph 2.1.7 Ratio of Liquid Assets to Deposits (LA/D)



Source: Bank Indonesia, processed

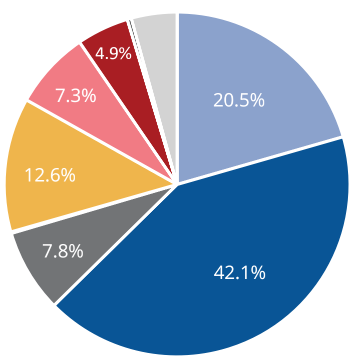
The decrease was primarily driven by a reduction in Government Securities (SBN) holdings, which remained the dominant component of banking liquid assets, accounting for 42% or Rp1,331 trillion (Graph 2.1.8). This suggests that banks are utilising SBN holdings strategically to support lending growth.

Sharia banking outperformed conventional banking in terms of financing growth. Financing disbursements by the sharia banking industry in 2023 grew 15.80% (yoy), exceeding the 10.38% (yoy) growth recorded in commercial bank lending (Graph 2.1.9). The main contributor to such considerable performance was an increase in working capital financing, particularly for the transportation sector and manufacturing industry. Nonetheless, financing for the consumption and investment segments slowed down, especially gold and copper mining investments.

Sharia banking intermediation was also driven by financing disbursed to flagship sectors in the Halal Value Chain (HVC), which grew positively. HVC priority sectors include agriculture, halal food and beverages, modest fashion, and Muslim-friendly Tourism (MFT). Those four sectors are key contributors to the national halal industry with a 22.7% share of GDP and 3.93% (yoy) growth in 2023[4]. Financing the HVC flagship sectors continued to grow, driven by financing to the modest fashion and MFT sectors, while disbursements to the agricultural and halal food and beverages sectors were constrained. Positive performance was accompanied by a broad-based decline in non-performing financing (NPF) across all HVC sectors (Graph 2.1.10).

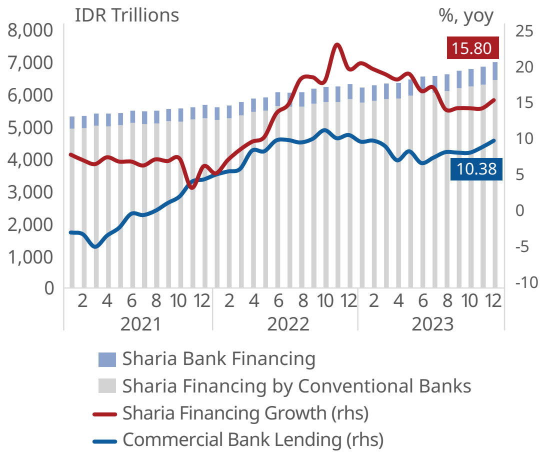
Positive financial intermediation performance was also promoted by the role of NBFI, notably fund disbursements by finance companies. Despite moderating from 14.18% in the previous year, finance companies achieved a respectable 13.23% growth rate (yoy). This was higher than

Graph 2.1.8 Composition of Bank Liquid Asset in December 2023



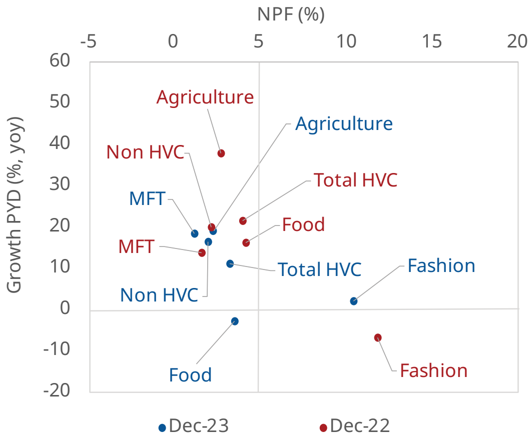
Source: Bank Indonesia, processed

Graph 2.1.9 Islamic Finance



Source: Bank Indonesia, processed

Graph 2.1.10 Sharia Bank Financing to the HVC Sector



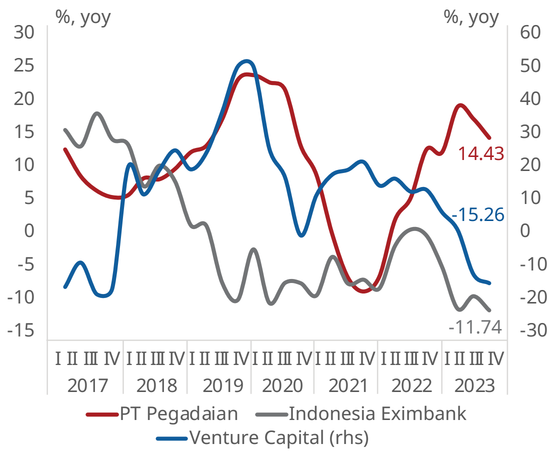
Source: Bank Indonesia, processed

4 Bank Indonesia (2024). Indonesia Sharia Economic and Finacial Review 2023.

the pre-pandemic level observed in 2019 (Graph 2.1.11). A significant growth source of financing for finance companies was automotive financing, which grew 15.58% (yoy), up from 14.02% (yoy) in 2022. On the other hand, property financing disbursed by finance companies contracted 10.95% (yoy), thus holding back aggregate growth of finance company financing.

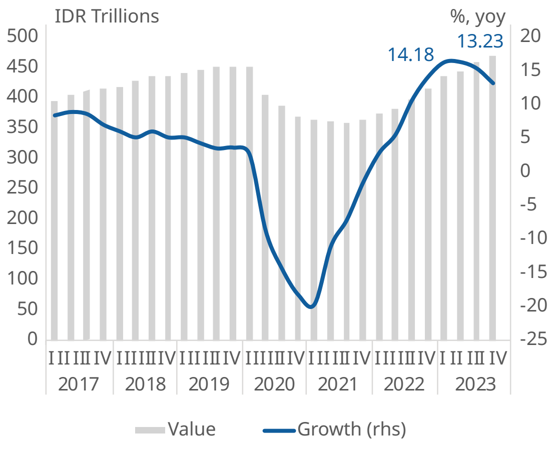
Consistent with finance companies, PT Pegadaian and FinTech lending companies reported positive financing growth, while financing disbursed by Indonesia Eximbank and venture capital declined. Disbursed financing by PT Pegadaian in 2023 grew 17.50% (yoy), surpassing performance in 2022 (Graph 2.1.12). FinTech lending also exhibited robust 16.67% (yoy) growth in 2023, despite moderation (Graph 2.1.13). FinTech lending in 2023 was mainly supported by consumer financing for individual borrowers and driven by the continued preference for cash loan products offered by most FinTech lenders. Conversely, financing extended by venture capital firms and Indonesia Eximbank posted -15.26% (yoy) and -11.74% (yoy) growth respectively. The financing contraction at Indonesia Eximbank occurred in parallel to the 5.76% decline in export value recorded in December 2023 compared with December 2022. Meanwhile, most venture capital firms were more selective when investing and prioritised the prospects and sustainability of start-ups.

Graph 2.1.12 NBFI Financing



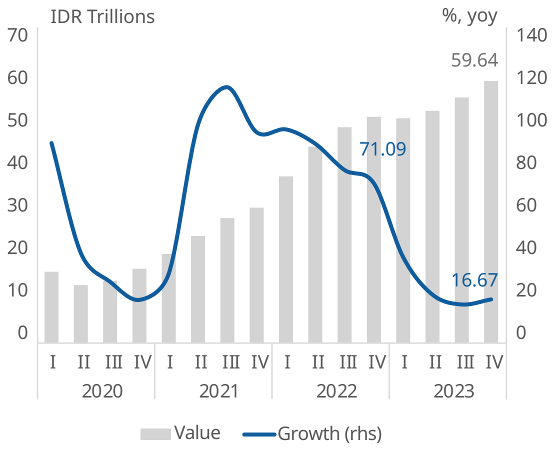
Source: OJK and PT Pegadaian, processed

Graph 2.1.11 Growth of Finance Company Financing



Source: OJK, processed

Graph 2.1.13 Growth of FinTech Lending

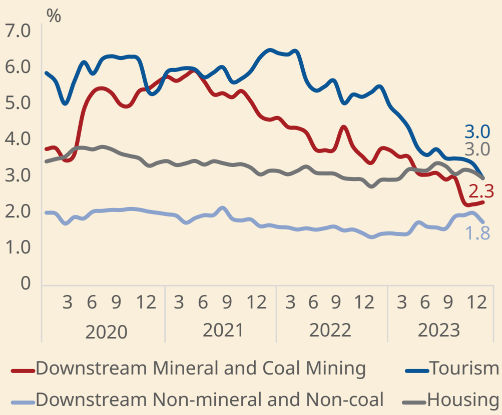


Source: OJK, processed

Box 2.1 Mapping High-Leverage Sectors with Potential to Drive Loan Growth

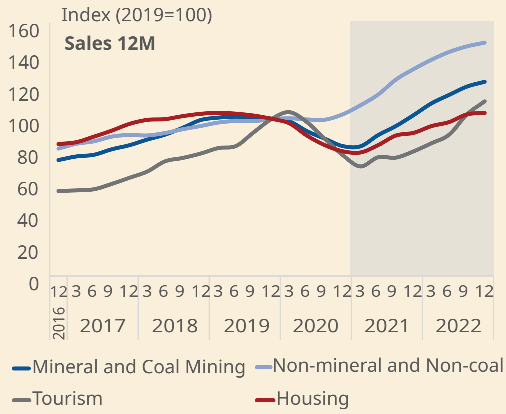
Bank Indonesia continued its commitment to foster lending/financing growth to sectors with high economic leverage. As a concrete step, Bank Indonesia implemented Macroprudential Liquidity Incentive (MLI) policy in 2023, targeting banks that extend credit to the minerals and coal mining as well as downstream non-mineral and non-coal sectors, housing, and tourism sectors to promote high-leverage sectors with financing potential. The mapping of high-leverage sectors refers to the synergy of policy prioritisation with other government ministries/agencies and their substantial potential for economic impact. The evaluation of economic impact incorporates several factors, including a sector's contribution to GDP and its interconnectedness with other industries (backward and forward linkages), while considering credit risk conditions and demand performance (Graphs B2.1.1 and B2.1.2).

Graph B2.1.1 Credit Risk of High-Leverage Sectors



Source: Bank Indonesia, processed

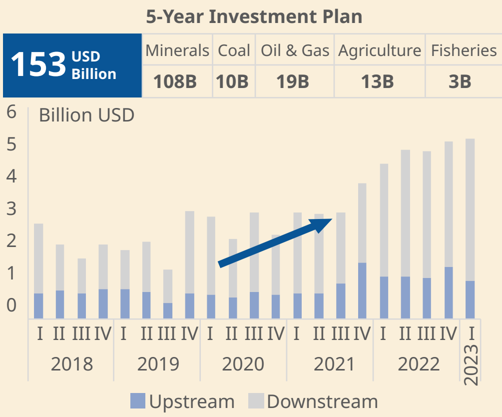
Graph B2.1.2 Sales Performance of High-Leverage Sectors



Source: Bank Indonesia, processed

With its significant potential, the downstream minerals and coal mining sector presents a compelling opportunity for continued financing support. This aligns with the government's downstreaming program, which seeks to increase value added and strengthen the domestic economic structure. Investment in the minerals and coal mining sector grew rapidly, as reflected by the increasing value of investment in the basic metals, fabricated metal products, and non-machinery and equipment industries (177.9%, yoy) over the last four years (Indonesia Investment Coordinating Board/BKPM, 2023). Looking ahead, BKPM forecasts that investment demand in the sector will continue increasing in line with the five-year investment plan, totalling USD153 billion (Graph B2.1.3). From the financing side, most of the mineral sector is still supported by external foreign financing or external debt, while domestic financing remains relatively limited. This is

Graph B2.1.3 Foreign Capital Investment on Minerals and Coal Mining Sector and 5-Year Investment Plan



Source: Indonesia Investment Coordinating Board (BKPM)

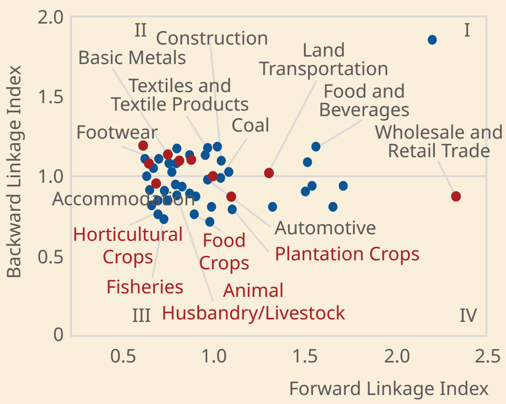
evidenced by the share of foreign and domestic financing in the sector, accounting for 86% and 14%, respectively (SULNI, 2023).

The downstream non-minerals and non-coal sector, encompassing Agriculture, Livestock, and Fisheries, also needs to be fostered to optimise the backward/forward linkages (Graph B2.1.4). While credit growth of the downstream non-minerals and non-coal sector reached 9.09% (yoy) in 2023, it lags behind aggregate banking industry growth of 10.38% (yoy). This highlights the potential for increased financial support. Nurturing this sector aligns with the non-minerals and non-coal downstreaming program, which currently targets strategic food commodities to bolster food resilience and control inflation. Furthermore, this sector remains dominated by small enterprises with limited downstream activities. Providing financing may promote more downstreaming.

Given its capital-intensive and labour-intensive nature, the housing sector offers an opportunity to stimulate investment and generate employment. Housing loan penetration in Indonesia remains low, however, compared with that of its regional peers. In 2020, housing loans as a percentage of GDP stood at just 3%, significantly behind Thailand (22.3%) and Malaysia (38.4%) (Graph B2.1.5). This disparity points to the significant potential for expanding bank financing in the housing sector. With a growing population and strong property sales performance, the future demand for housing finance is projected to remain high.

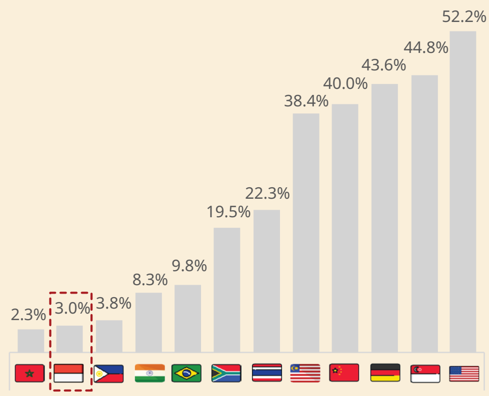
Furthermore, tourism shows strong linkages with other sectors, such as transportation and trade. The tourism sector, which experienced a lasting scarring effect from the

Graph B2.1.4 Backward/Forward Linkage of Non-minerals and Non-coal Sector



Source: IO Statistics Indonesia 2016, processed

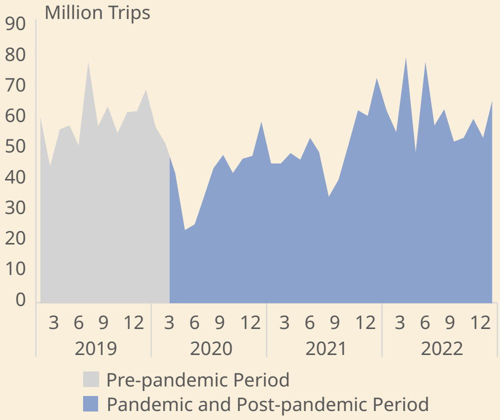
Graph B2.1.5 Ratio of Housing Loans to GDP



Source: CEIC, processed

pandemic, particularly accommodation and food service activities, has started to recover. The rising number of tourists reflects this recovery (Graph B2.1.6), resulting in higher hotel occupancy. Going forward, the Tourism sector recovery will remain intact in line with government policy to develop Super Priority Tourism Destinations.

Graph B2.1.6 Total Trips by Domestic Tourists



Source: Statistics Indonesia, processed

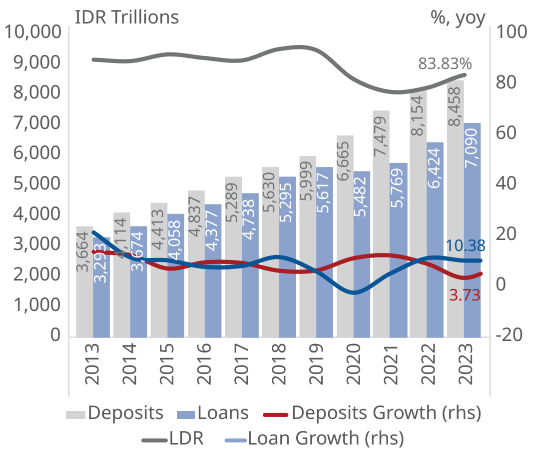
Bank Indonesia will continue strengthening financing to sectors with high economic leverage through periodic evaluations of MLI policy effectiveness. These efforts are carried out, among others, through sectoral evaluations based on supply and demand side assessments, as well as the magnitude of liquidity incentives allocated to each sector. Bank Indonesia will also continue strengthening synergy and coordination with relevant stakeholders through policy harmonisation, coordination of macroprudential-fiscal stimuli, and coordination with regional governments to strengthen demand and supply.

2.2 Future Lending Capacity Challenges

Loan growth outpaced deposit growth in the banking sector. In 2023, bank deposits grew 3.73% (yoy), slower than in 2022 at 9.01% (yoy) and loan growth in 2023. Slower bank deposit growth than loan growth created a gap between the volume of loan disbursements and the volume of deposits, as indicated by an increase in the Loan to Deposit Ratio (LDR) from 78.78% in 2022 to 83.83% in 2023 (Graph 2.2.1). Consequently, the funding gap[5] at the end of 2023 widened to reach its highest level since 2010, namely Rp362 trillion (Graph 2.2.2).

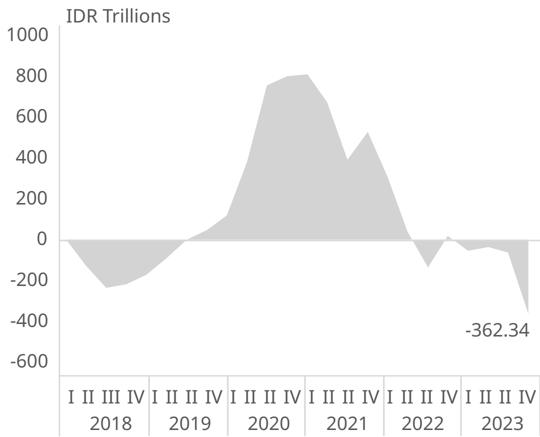
The phenomenon of slowing bank deposit growth pushed up deposit rates. In general, CASA interest rates, namely current accounts (demand deposits) and savings accounts (saving deposits), and term deposits have increased, indicating heightened competition for deposits. The increase in CASA interest rates by 15bps to

Graph 2.2.1 Bank Deposits, Loans and LDR



Source: Bank Indonesia, processed

Graph 2.2.2 Funding Gap



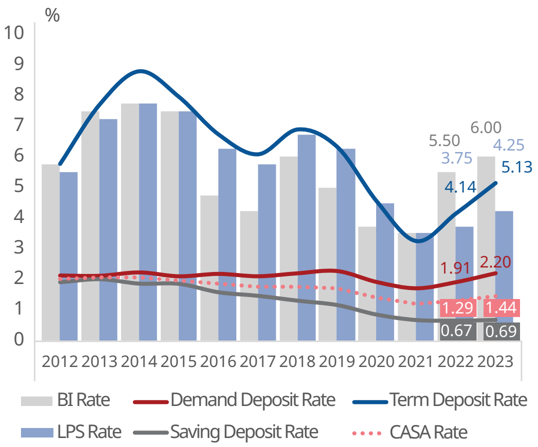
Source: Bank Indonesia, processed

1.44% (2023) was mainly reflected in a 29bps increase in demand deposit rates to 2.20% (2023). On the other hand, term deposit rates increased more sharply by 99bps to 5.13% (2023). Although below the pre-pandemic level, the term deposit rate has exceeded the LPS guarantee rate for commercial banks of 4.25% (Graph 2.2.3).

Despite slowing deposit growth, non-deposit funding sources remained stable. Non-deposit sources, which consist of loans received and securities, reached Rp407 trillion in 2023 or relatively stable compared with the previous year of Rp408 trillion. In terms of composition, loans received increased by 5.13% (yoy) from Rp293 trillion in 2022 to Rp308 trillion in 2023. The outstanding value of securities decreased from Rp115 trillion to Rp99 trillion (Graph 2.2.4) in line with the value of maturing securities which was

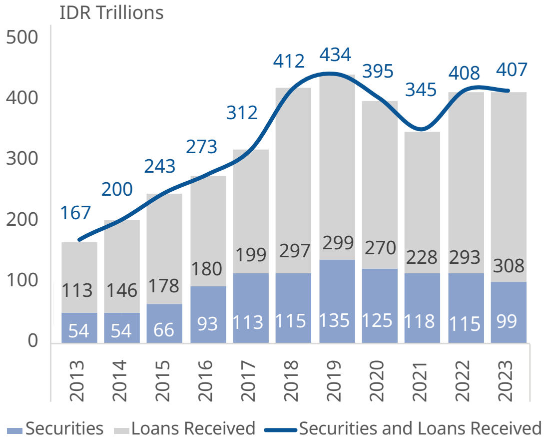
5 The Funding surplus/gap is calculated by subtracting the change in bank deposits from the change in loans disbursed by the bank in the current year. A funding gap reflects the amount of funds a bank requires to meet its intermediation needs, while a funding surplus reflects the amount of excess funds a bank has relative to its loan disbursements.

Graph 2.2.3 Deposit Rates and Policy Rates



Source: Bank Indonesia, processed

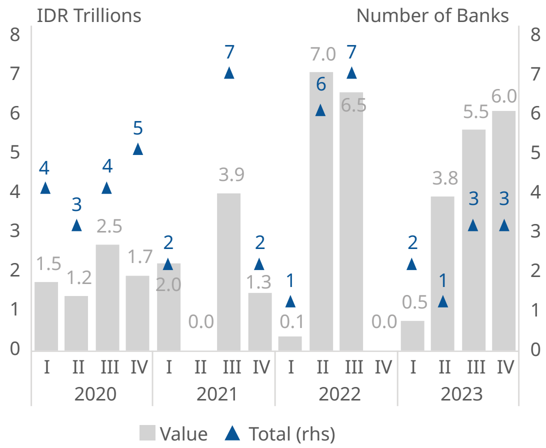
Graph 2.2.4 Non-deposit Funding



Source: Bank Indonesia, processed

greater than the value of EBUS (debt securities and/or sukuk) issuances. Despite being lower than the value of maturing securities, the value of EBUS issuance increased by 15.8% (yoy) compared to the previous year, with a fundraising value of Rp15.7 trillion (Graph 2.2.5). EBUS issuances were predominantly carried out in the second semester

Graph 2.2.5 EBUS Issuance by Banks

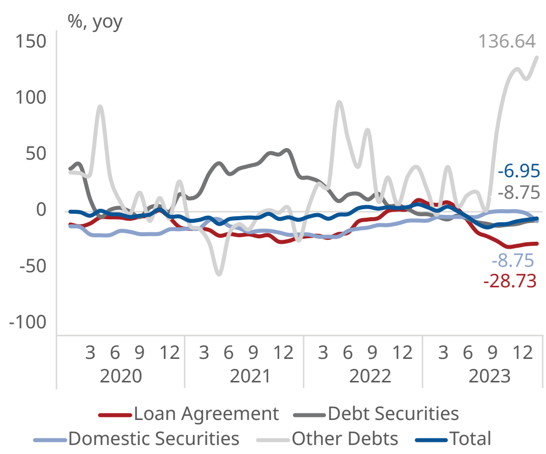


Source: Indonesia Central Securities Depository (KSEI), processed

of 2023 in line with the increase in funding needs. The higher issuance value was also driven by the issuance of green bonds by banks in the global market.

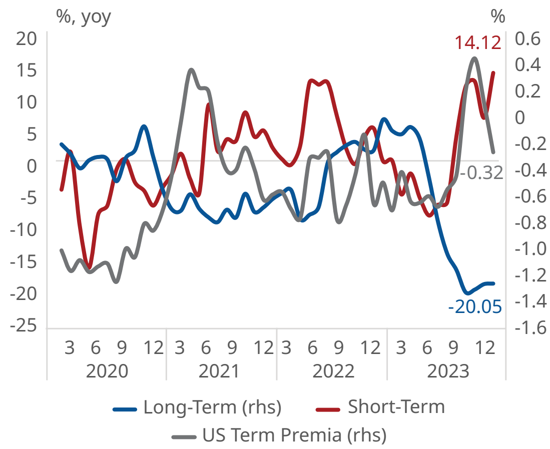
In terms of bank external debt, a shift was observed from long to short-term maturity at the end of 2023. The growth of bank external debt in 2023 slowed down and occurred in almost all bank groups. This was affected by higher global interest rates in line with the FFR hikes., The contraction of bank external debt was relatively slow at the end of 2023, however, driven by an increase in short-term external debt withdrawals. Based on instrument type, the increase was primarily due to other debts, with growth of 136.64% (yoy) in 2023 and a 21.27% share of total bank external debt (Graph 2.2.6). The rebalancing to short-term debt from long-term debt in 2023 was also driven by the high long-term risk premium in line with global financial market uncertainty (Graph 2.2.7).

Graph 2.2.6 Bank External Debt by Instrument



Source: Bank Indonesia, processed

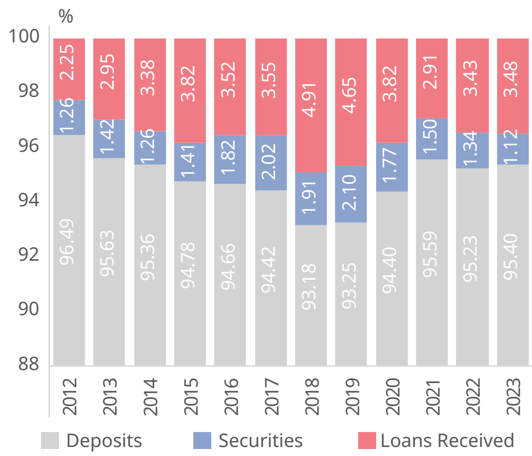
Graph 2.2.7 External Debt by Original Maturity



Source: Bank Indonesia, processed

Non-deposit bank funding sources must be strengthened to meet the increasing need for financing. At the end of 2023, bank deposits dominated 95% of total bank funding at Rp8,458 trillion. On the non-deposit side, funding sources in the form of securities issued and loans received accounted for just 1.12% (Rp99 trillion) and 3.48% (Rp308 trillion) of total bank funding (Graph 2.2.8). Consistent with declining excess liquidity in the banking industry and the low portion of non-deposit funding sources as alternative funding, strengthening non-deposit funding is essential to support loan growth.

Graph 2.2.8 Bank Deposits, Securities, and Loans Received



Source: Bank Indonesia, processed

2.3 Positive Corporate and Household Sector Performance Boosted Demand for Loans and Financing

Corporate performance maintained positive growth in 2023, albeit slower than in the previous year. As an aggregate, corporate performance recorded slower 1.74% (yoy) sales growth in the reporting period. The slowdown partly stemmed from the agricultural and mining sectors, which experienced respective sales contraction of 2.41% (yoy) and 9.52% (yoy) given the global commodity price slowdown trend (Table 2.3.1). Sales moderation also held back the corporate Return on Equity (ROE) to 10.65% in 2023, down from 15.61% in 2022. Meanwhile, corporate investment expanded, yet was restrained by higher for longer policy rates and the wait-and-see behaviour of businesses stoked by uncertainty during the 2024 pre-election period, in line with the historical trends in 2014 and 2019 (Graph 2.3.1).

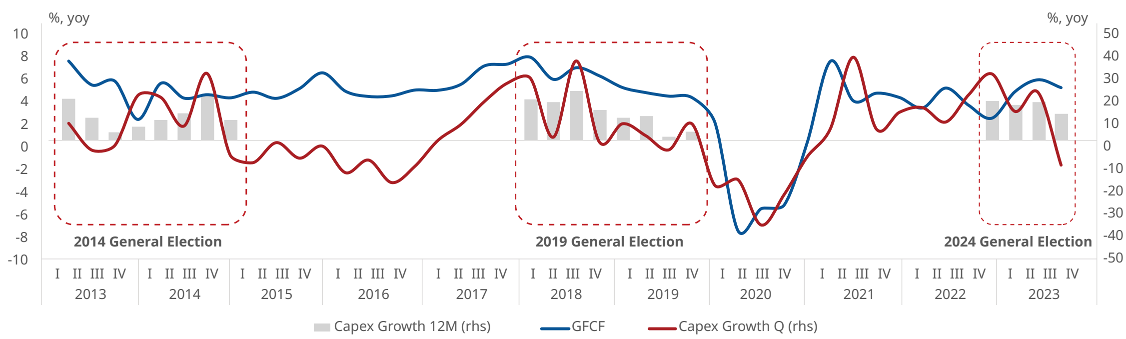
Well-maintained corporate performance had a positive impact on corporate financing. Fragmented commodity prices in various destination countries affected commodity transaction developments, especially in the agricultural and energy sectors (Graph 2.3.2). However, the impact on the corporate financing was relatively limited. This was reflected in the demand for corporate financing, which showed improvement, especially for Working Capital

Table 2.3.1 Corporate Sales Growth, Profitability, and Capex by Sector

Sector	Sales Growth (%yoy)					2020-2023 Trend	Sales Contribution (%)	Return on Equity (%)					2020-2023 Trend	Capex Growth (%yoy)					2020-2023 Trend
	2020	2021	2022	2023				2020	2021	2022	2023			2020	2021	2022	2023		
	Dec	Dec	Dec	Jun	Dec			Dec	Dec	Dec	Jun	Dec		Dec	Dec	Dec	Jun	Dec	
Agriculture	11.03	37.87	14.59	-2.87	-2.41		-0.11	4.80	11.18	14.52	8.29	4.75		-19.66	-9.08	32.15	21.54	2.20	
Mining	-17.55	44.96	67.33	32.24	-9.52		-1.59	3.71	22.67	36.93	29.87	19.24		-39.89	30.27	61.93	47.47	9.91	
Manufacturing	-10.85	18.31	12.09	4.52	3.39		1.41	8.51	8.65	9.45	9.31	10.20		-35.59	2.80	13.71	18.28	15.60	
Electricity, Gas and Water Supply	-22.54	4.47	19.32	16.42	12.76		0.25	-3.54	9.40	9.49	8.49	8.08		18.76	7.23	-39.54	-27.20	10.39	
Construction	-31.33	8.94	14.73	11.24	4.98		0.27	-4.94	1.97	1.98	2.15	2.00		-21.89	59.19	-29.19	-20.59	14.08	
Trade	-18.98	17.71	26.56	16.33	5.35		0.88	1.29	10.89	18.69	18.73	15.81		-31.63	-11.19	57.00	71.78	53.26	
Transportation	-15.66	5.25	19.98	16.80	9.81		0.93	-9.09	-14.93	37.76	13.32	16.51		-17.21	-3.95	-2.02	5.13	-6.20	
Corporate Services	-16.32	19.67	17.84	5.18	-0.04		0.00	-3.91	0.87	6.75	-6.18	3.89		-33.72	35.31	-9.65	-20.25	16.36	
Social Services	-4.06	19.31	1.16	0.05	-4.16		-0.09	4.62	9.14	6.11	3.71	2.24		-14.35	-12.22	13.60	8.01	5.45	
Aggregate	-14.47	20.00	22.72	11.94	1.74		1.74	2.42	7.81	15.61	11.93	10.65		-26.82	6.04	9.36	15.95	9.24	

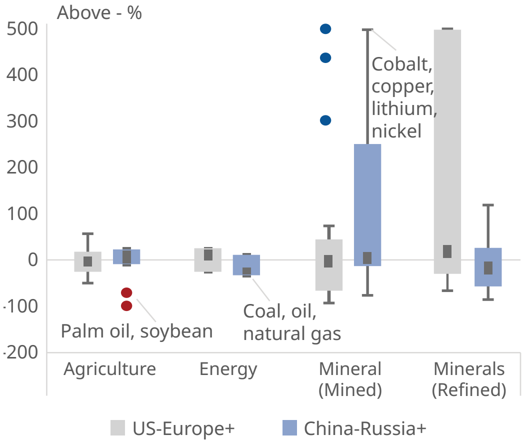
Source: Bloomberg and Indonesia Stock Exchange (IDX), processed

Graph 2.3.1 Capex and Gross Fixed Capital Information Growth During Election Period



Source: Bloomberg and Statistics Indonesia, processed

Graph 2.3.2 Price Fragmentation by Commodity

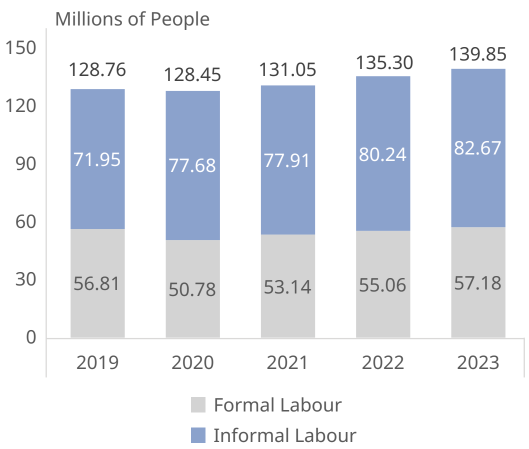


Source: IMF WEO

Loans, in line with positive corporate sales. By economic sector, the demand for Working Capital Loans was dominated by mining, trade and corporate services. Similarly, in accordance with the positive Capex growth, Investment Loan growth was maintained with the sectoral contribution dominated by mining, food and beverages, and trade.

Positive corporate performance also contributed to labour absorption and stable household consumption. The number of employed people increased from 135.5 million in 2022 to 139.9 million in 2023. The workforce was still dominated by informal workers, although the share has decreased slightly (Graph 2.3.3). The

Graph 2.3.3 Composition of Formal and Informal Labour

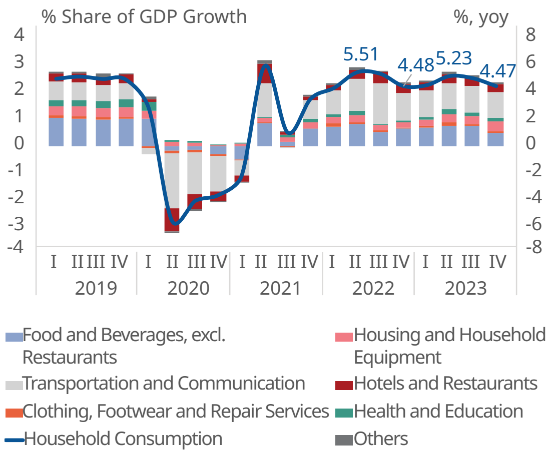


Source: Statistics Indonesia, processed

increase in the number of workers in 2023 was attributable to accommodation and food services activities given the normalisation of community mobility, the construction sector as well as the agricultural, forestry and fisheries sector. This contrasts conditions in 2022, when the main employers were the agricultural, forestry and fisheries sector, manufacturing industry and trade.

Household consumption was maintained in line with growing public optimism. Although slightly lower than the 4.94% (yoy) recorded in 2022, household consumption in 2023 was relatively well maintained at 4.82% (yoy). In terms of expenditure, the main contributors to household consumption were Transportation and Communication, Food and Beverages, as well as Restaurants and Hotels (Graph 2.3.4). Household consumption growth was maintained on the back of milder inflationary pressures in 2023 and growing public optimism, as reflected in positive trends across various indices, namely the Income Expectation Index, Job Availability Expectation Index, Business Activity Expectation Index, and Purchase of Durable Goods

Graph 2.3.4 Household Consumption

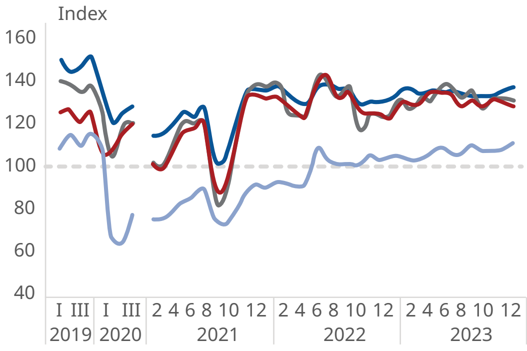


Source: Statistics Indonesia, processed

Index, including property (Graph 2.3.5). Solid household consumption and income prompted high demand for household loans, especially housing loans.

Maintained household sector performance, accompanied by the support of Government-borne VAT (PPN-DTP) policy, also contributed to the increase observed in residential property purchases. Housing sales in the primary market continued to improve, posting positive 3.37% (yoy) growth in the fourth quarter of 2023. The improvement in residential property sales was mainly driven by medium and large residences at 6.29% (yoy) and 19.93% (yoy) respectively. Sales growth precipitated a continuous increase in house prices, reaching 1.74% (yoy) in the fourth quarter of 2023. The improvement in residential property sales in the primary market was also supported by the PPN-DTP fiscal incentive policy, effective from November 2023 to December 2024. This incentive exempts buyers from paying VAT on new houses and apartments up to a maximum price of Rp5 billion, with the imposition of PPN-DTP calculated for prices up to Rp2 billion. The PPN DTP incentive is expected to catalyse the performance of property developers and corporations in the sector, while also reviving bank financing.

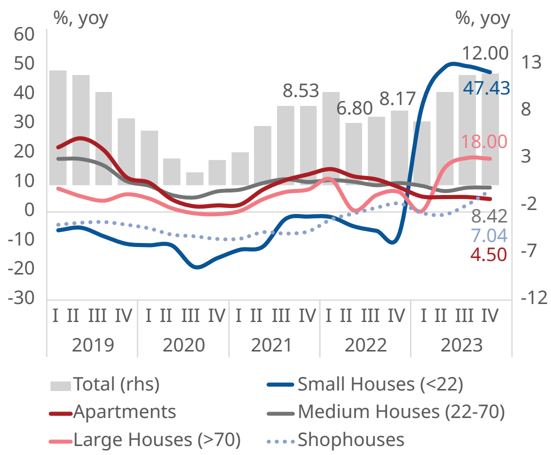
Graph 2.3.5 Consumer Expectation Index



Source: Bank Indonesia, processed

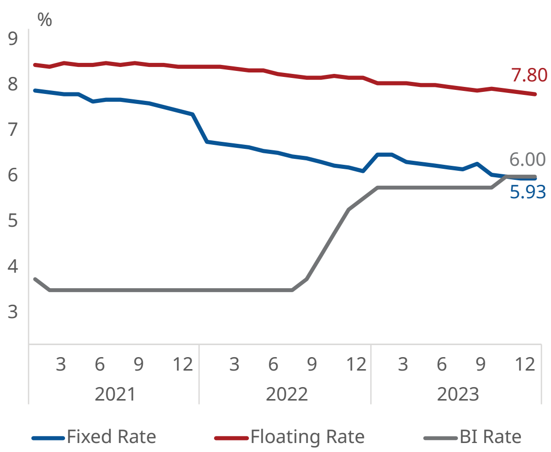
In line with increasing residential property sales, demand for property financing also tracked an upward trend throughout 2023. On the consumer side, purchases through housing loans remained the preferred form of financing for residential property purchases, dominating around 76% of the total[6]. In 2023, housing loans recorded solid 12.00% (yoy) growth, the highest since 2019 (Graph 2.3.6), which was primarily driven by housing loans for medium landed houses (21<type≤70), followed by large landed houses (type>70). High demand for housing loans was also supported by relatively stable housing loan rates despite increasing policy rates (Graph 2.3.7).

Graph 2.3.6 Housing Loans in Household Sector



Source: Bank Indonesia, processed

Graph 2.3.7 Housing Loan Rates



Source: Bank Indonesia, processed

6 Bank Indonesia. (2024). *Residential Property Price Survey for Primary House – Quarter IV 2023* [Data set].

BANK INDONESIA

Chapter 3

FINANCIAL SYSTEM STABILITY MAINTAINED WITH STRONG RESILIENCE DESPITE UNCERTAINTY

Financial sector resilience in 2023 was maintained in line with lower credit risk, strong capital and ample liquidity. Bank credit risk decreased due to improving debtor repayment capacity and the limited impact of the discontinued loan restructuring program. Banks applied prudential principles to anticipate potential risks moving forward and maintain high capital levels. Banking resilience was also supported by maintained liquidity conditions amidst increasing intermediation activity. In the Non-Bank Financial Industry (NBFI), resilience was reflected in the mitigated financing risks, adequate capital, and positive performance. Moreover, the low level of interconnectedness between banks and NBFI consequently limited the potential contagion of risk between the two. On the other hand, risks to the financial sector are growing in line with the rapid digitalisation of financial services and their vulnerability to cyber risk. Strengthening resilience and cybersecurity for financial service providers regulated and supervised by Bank Indonesia is crucial in anticipating risks in the digital financial landscape.

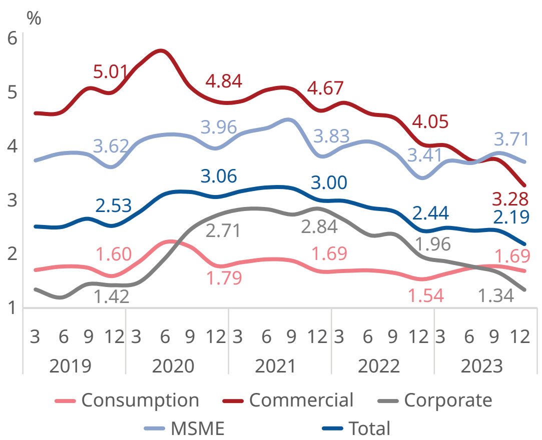
Corporate and household repayment capacity in 2023 was well-maintained, corresponding to financial sector resilience. High interest rates and falling commodity prices had a moderate impact on corporate performance. Corporate repayment capacity was maintained, supported by ample liquidity. Corporate resilience was also reflected in an adequate Interest Coverage Ratio (ICR), lower probability of default compared to the historical average, and maintained Debt at Risk ratio (DaR). The decline in corporate excess savings in some sectors could increase demand for credit. Strong corporate resilience mitigated the impact of external spillovers from China's economic slowdown and property crisis. Mirroring strong corporate resilience, household resilience was also maintained, supported by stable repayment capacity with a relatively good DSR level, as well as increasing income.

3.1 Financial Sector Resilience Maintained in line with Mitigated Risk

The intact national economic recovery and ongoing improvements in the real sector have contributed to lower credit risk in the banking industry. Low credit risk was maintained in all segments, including corporate, commercial, consumption and MSME, as reflected in the gross NPL ratio in 2023, which was below 5%. As an aggregate, the gross NPL ratio was recorded at 2.19% in 2023, decreasing from 2022 to its lowest level in the past five years (Graph 3.1.1).

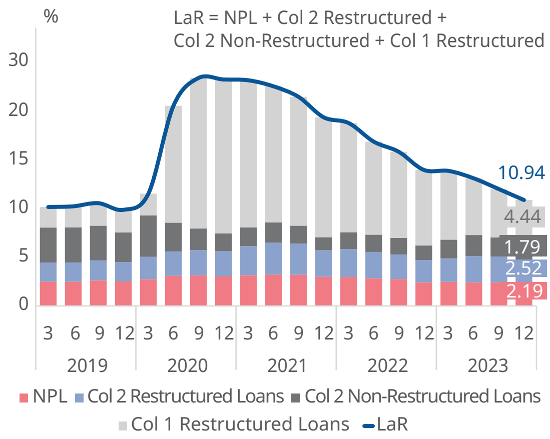
The decline in the Loan at Risk (LaR) ratio further underscored mitigated credit risk. At 10.94% in 2023, the LaR ratio was not only the lowest in three years but also approaching pre-pandemic levels of 9.93%, as recorded in 2019 (Graph 3.1.2). The downward LaR trend was driven by a decline in loan restructuring across all segments

Graph 3.1.1 Gross NPL by Segment



Notes:
Corporate Loans: Loans > Rp100 billion, excluding MSME and consumption loans
Comercial Loans: Loans < Rp100 billion, excluding MSME and consumption loans
Source: Bank Indonesia, processed

Graph 3.1.2 Composition of Bank Loans at Risk (LaR)



Source: Bank Indonesia, processed

(Graph 3.1.3) in line with the improved repayment capacity of debtors participating in the loan restructuring program[7].

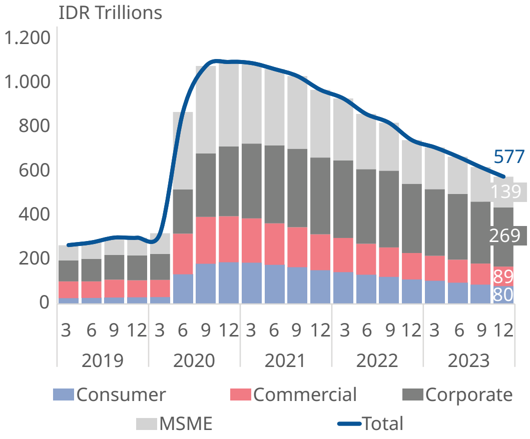
The discontinuation of the loan restructuring program[8] had a limited overall impact. The targeted and sectoral credit and financing restructuring policy[9] effective until 31st March 2024

7 Through OJK Regulation (POJK) No. 11/POJK.03/2020, POJK No. 48/POJK.03/2020 and POJK No. 17/POJK.03/2021 concerning National Economic Stimulus as a Countercyclical Policy to the Impact of the Spread of COVID-2019.

8 Through OJK Regulation (POJK) No. 11/POJK.03/2020, POJK No. 48/POJK.03/2020 and POJK No. 17/POJK.03/2021 concerning National Economic Stimulus as a Countercyclical Policy to the Impact of the Spread of COVID-2019.

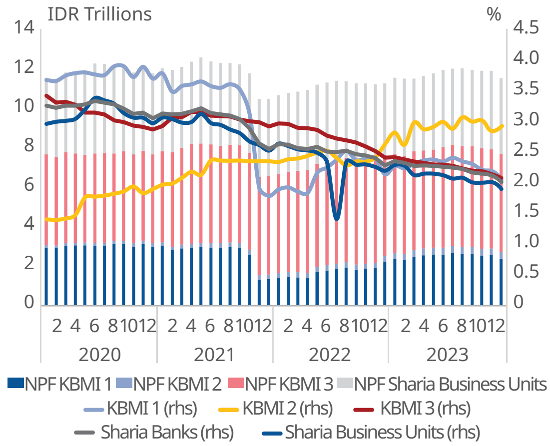
9 Through the OJK Board of Commissioners Decree No. 34/KDK.03/2022 concerning the Designation of Accommodation and Food Service Activities, Textiles and Footwear, the MSME segment and Bali province as Sectors and Regions requiring Special Treatment for Bank Loans and Financing.

Graph 3.1.3 Bank Restructured Loans by Segment



Source: Bank Indonesia, processed

Graph 3.1.4 NPF of Sharia Bank Financing



Source: Bank Indonesia, processed

has caused a decrease in credit quality for some pandemic-affected borrowers, particularly debtors who do not meet the requirements for renewal facilities under the policy. This decline is primarily seen in a nominal increase of NPLs in several economic sectors compared with the previous year, specifically the agricultural, construction, social services, and other sectors[10]. Nevertheless, NPL ratios for all economic sectors were maintained below 5% (Table 3.1.1).

In line with industry trends, credit risk in the sharia banking industry also declined. The NPF ratio of sharia banks decreased to 2.03% in 2023 from 2.30% in December 2022 (Graph 3.1.4). The decline in NPF mainly occurred in the KBMI 3 group and Sharia Business Units (UUS). The extension of the financing restructuring policy until March 2024 further supports an improvement in financing quality. The downward NPF trend since 2021 demonstrates the growing resilience of sharia banks, especially after the Covid-19 pandemic.

The banking industry continued to apply prudential principles in anticipation of potential risks moving forward. Despite a decrease in credit risk, banks formed relatively high provisions for impairment losses and maintained their capital levels. The ratio of impairment provisions to NPL and LaR in 2023 was 214.66% and 42.89%, respectively (Graph 3.1.5). Overall,

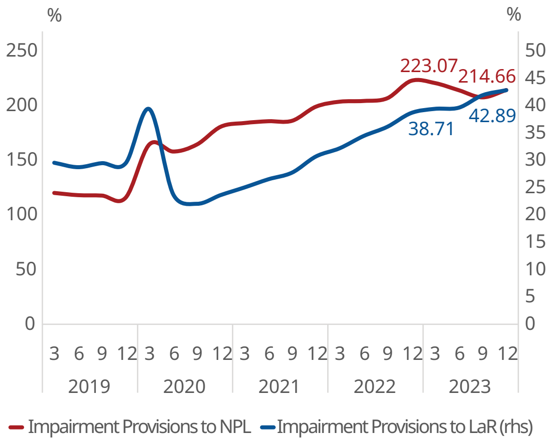
10 Other sectors are dominated by consumer loans.

Table 3.1.1 Credit Risk by Sector

Economic Sector	(Gross) NPL (%)						NPL Value		
	2019	2020	2021	2022	2023		Δ YOY (IDR T)		Share (%)
					Jun	Dec	2022	2023	
1. Agriculture	1.66	2.08	1.74	1.60	2.03	2.00	0.06	2.74	6.69
2. Mining	3.58	7.26	4.42	2.42	2.41	1.23	-1.04	-2.19	2.30
3. Manufacturing	3.88	4.58	5.18	3.77	3.67	3.26	-9.06	-3.80	23.48
4. Electricity, Gas, and Water Supply	0.89	1.24	1.04	0.47	0.45	0.36	-0.91	-0.10	0.43
5. Construction	3.55	3.45	3.62	3.55	3.64	3.62	0.32	0.20	9.22
6. Trade	3.66	4.54	4.33	3.79	3.58	3.24	-3.08	-3.20	26.52
7. Transportation	1.64	2.16	2.07	1.63	1.10	1.01	-1.23	-1.34	2.43
8. Corporate Services	1.43	1.92	2.11	1.38	1.38	1.13	-1.81	-0.31	5.31
9. Social Services	1.50	2.17	1.54	1.43	1.50	1.39	0.27	0.94	2.54
10. Other	1.60	1.80	1.69	1.54	1.75	1.69	-0.21	5.45	21.09
Total	2.53	3.06	3.00	2.44	2.44	2.19	-16.69	-1.60	100

Source: Bank Indonesia, processed

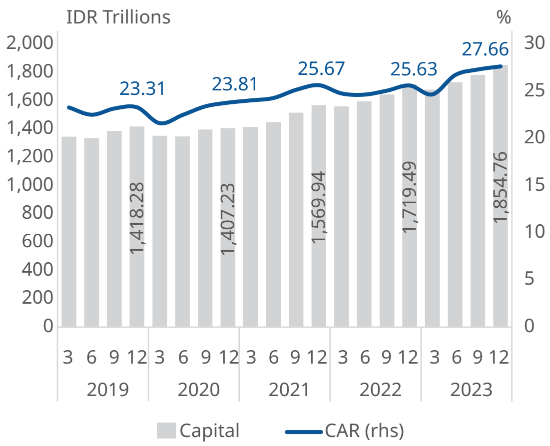
Graph 3.1.5 Coverage of Provisions for Impairment Losses Against Credit Risk



Source: Bank Indonesia, processed

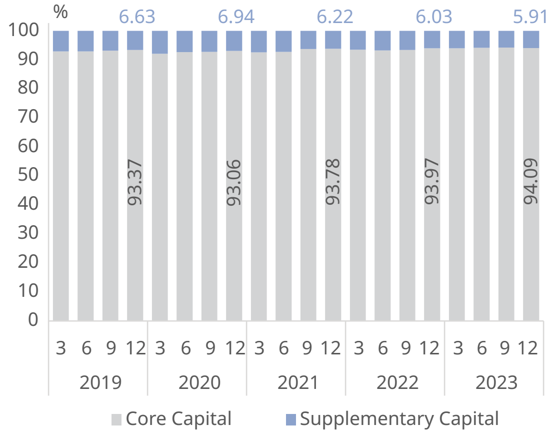
the Capital Adequacy Ratio (CAR) in 2023 was recorded at 27.66%, higher than in the previous year (Graph 3.1.6). In addition, the percentage of core capital to total bank capital was recorded high at 94.09% (Graph 3.1.7). Banking stress tests using adverse macroeconomic scenarios[11] demonstrated that NPL would remain below 5% with CAR remaining above 20% industrywide. These results reveal that banks have an adequate level of provisions for impairment losses and capital to cushion potential losses in the event of deteriorating macroeconomic conditions.

Graph 3.1.6 Bank Capital



Source: OJK, processed

Graph 3.1.7 Composition of Bank Capital



Source: OJK, processed

Banking industry resilience was also attributable to maintained liquidity conditions amidst increasing intermediation. In 2023, the ratio of liquid assets[12] to deposits remained high at 28.73%, well above the average value of LA/deposits in the pre-pandemic period[13] of 20.66% (Graph 3.1.8). The Liquidity Coverage Ratio (LCR) and Net Stable Funding Ratio (NSFR) of the banking industry exceeded the threshold values of 100%, at 220.18% and 134.04%, respectively in 2023 (Graph 3.1.9). These robust liquidity indicators reflect the ability of bank liquidity management to adequately fulfil short- and long-term obligations, while supporting credit expansion even as the funding gap widened. To address this widening gap, the banking industry normalised its liquid asset levels (Graph 3.1.10), leading to a decrease in liquidity ratios compared with 2022. Additionally, banks strategically adjusted the composition of their liquid assets by increasing the portion of instruments that can be used in repo transactions, particularly SBN and SRBI.

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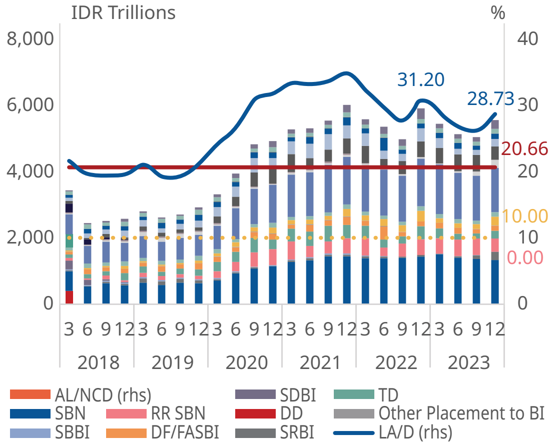
11 Considering the end of the extension of targeted and sectoral credit and financing restructuring policy in March 2024, as stated in OJK Press Release (SP 85/DHMS/OJK/XI/2022) entitled OJK Extends Credit Restructuring Policy as well as Targeted and Sectoral Financing to Overcome the Continuing Impact of the COVID-19 Pandemic until March 31, 2024

12 Liquid Assets (LA) defined as (Cash + Placement to BI + Government Securities) – (Reserve Requirement + MPLB Requirements + MIR Requirements), with a threshold value of LA/D of 10%.

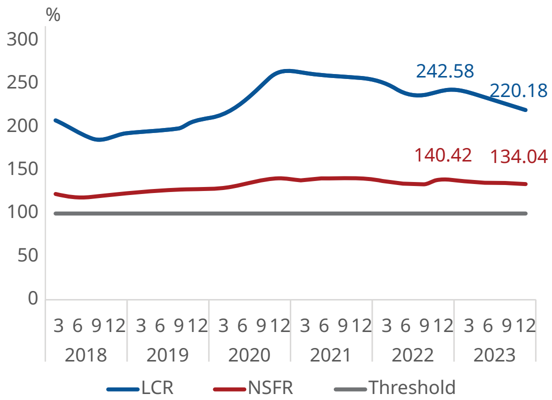
13 The average banking industry LA/Deposits ratio in the pre-pandemic period (2012 – 2019) reflects the level of liquidity maintained by the banking industry during a normal period.

Graph 3.1.8 Ratio of Liquid Assets to Bank Deposits (LA/D) and LA Components



Source: Bank Indonesia, processed

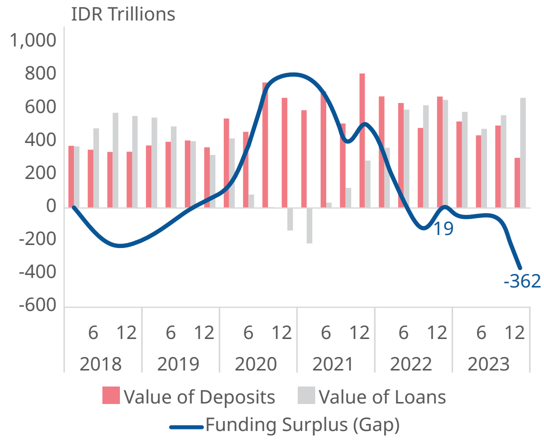
Graph 3.1.9 LCR and NSFR



Notes: Before 2023, the reporting scope was limited to KBMI 3, KBMI 4, and foreign banks.
Source: OJK, processed

Reflecting strong banking sector performance, the non-bank financial industry (NBFI) also demonstrated resilience in 2023 to support the intermediation function. The relatively low credit risk of NBFI was largely supported by finance

Graph 3.1.10 Bank Funding Gap



Source: Bank Indonesia, processed

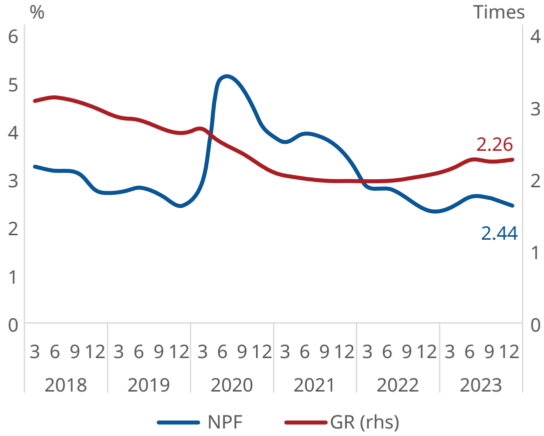
companies that dominated NBFI financing[14]. The NPF ratio for finance companies improved in 2023, returning to pre-pandemic levels by reaching 2.44% after a temporary rise above 5% in 2020 due to the COVID-19 pandemic. Finance companies further demonstrated resilience with adequate capital levels. Finance companies' gearing ratio (GR) stood at 2.26x in 2023, exceeding the 2022 level of 2.07x and below the threshold of 10x[15] (Graph 3.1.11).

In line with the solid resilience of finance companies, the resilience of PT Pegadaian and Venture Capital Firms was also maintained. In 2023, PT Pegadaian maintained an NPF ratio of 0.85%, while the at ratio venture capital firms stood at 4.04%, both well below the 5% threshold. In terms of capital, PT Pegadaian and venture capital firms further demonstrated strong resilience, as reflected in Pegadaian's relatively low DER ratio of 1.53x and 0.62x in the venture capital industry.

14 NBFI financing share is dominated by finance companies, accounting for 54.40% of the total NBFI

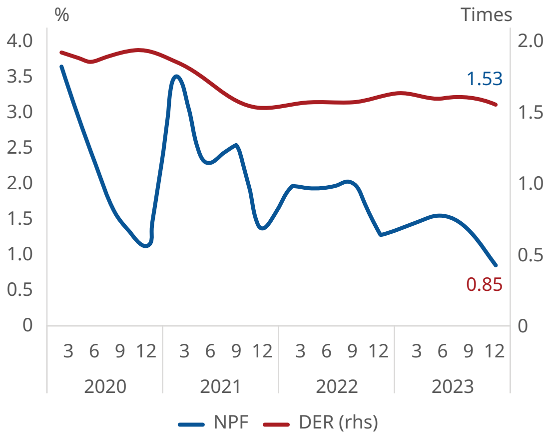
15 Gearing ratio is the ratio of total loans to total internal capital and subordinated loans after deducting existing capital participation. In accordance with OJK Regulation (POJK) No. 35/POJK.05/2018, Finance Companies must meet the gearing ratio of at least 0 times and at most 10 times.

Graph 3.1.11 Non-Performing Financing (NPF) and Gearing Ratio (GR) of Finance Companies



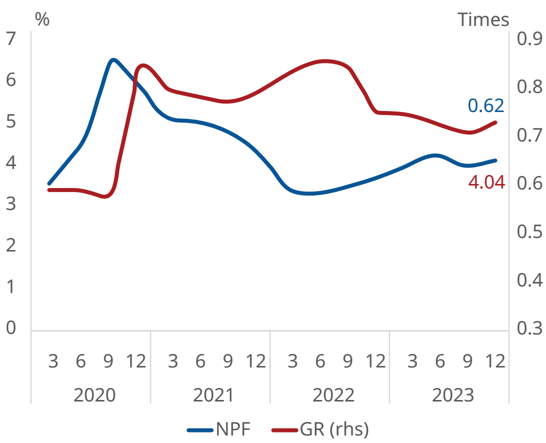
Source: OJK, processed

Graph 3.1.12 NPF and DER of Pegadaian



Source: OJK dan PT Pegadaian, processed

Graph 3.1.13 NPF and GR of Venture Capital Firms



Source: OJK and PT Pegadaian, processed

In general, FinTech lending mitigated risk. In 2023, FinTech lending's financing risk (TWP90[16]) as an aggregate was maintained below 5% at 2.93%. This represents a slight increase compared with 2.78% in 2022. It is necessary to note, however, the increased risk of FinTech lending for the corporate segment ,which reached 7.60% in December 2023, although the contribution of corporate financing to the overall FinTech industry was limited, with a low share of total financing (Graph 3.1.14).

Resilience and positive performance were evident within the insurance and pension fund segments of the NBFI. This was evidenced by the strong capital of the insurance industry, as reflected in the high Risk-Based Capital (RBC) ratios for both general insurance (363.1%) and life insurance (457.9%), well above the 120% threshold[17]. As an aggregate, the ratio of gross premiums to claims paid was also maintained above 100% at 122.34% in 2023 (Graph 3.1.15). This adequacy was supported by an increase in gross premiums of the insurance industry in 2023, which reached Rp535 trillion[18] or grew by 3.53%[19] (yoy), coupled with an increase in total assets of the insurance industry to Rp1,843 trillion in 2023, growing by 6.03%[20] (yoy). Mirroring the positive trend in the insurance industry, pension funds also demonstrated resilience and positive performance. The amount of pension fund contributions accumulated in 2023 was greater than claims for benefits due (Graph 3.1.16). Pension fund assets in 2023 were recorded at Rp363 trillion, up 6.2% (yoy) to outpace growth in 2022 at 5.34% (yoy) (Graph 3.1.17).

16 TWP90 is a measure of default on the settlement of loans stated in agreement above 90 days from the maturity date.

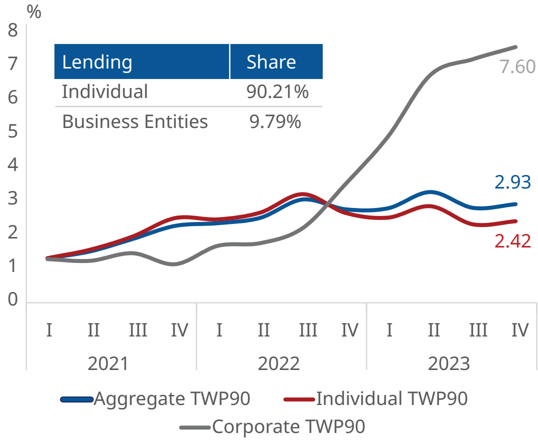
17 As stated in the Indonesian Insurance Roadmap 2023-2027 from OJK.

18 The highest contributor of the insurance gross premium in 2023 was social insurance with a share of 46.45%, followed by life insurance, general insurance, and reinsurance at 29.40%, 18.57% and 4.26% respectively.

19 Higher than 2022 growth at 2.22% (yoy).

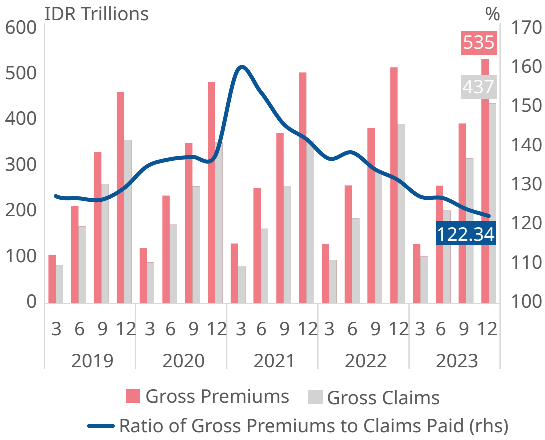
20 Higher than 2022 growth at 5.74% (yoy).

Graph 3.1.14 FinTech Lending Risk



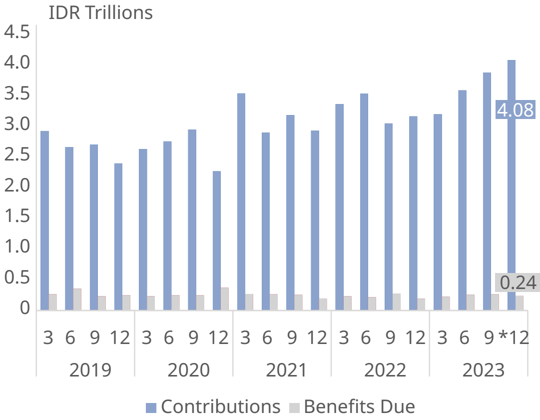
Source: OJK, processed

Graph 3.1.15 Gross Insurance Premiums and Claims Paid



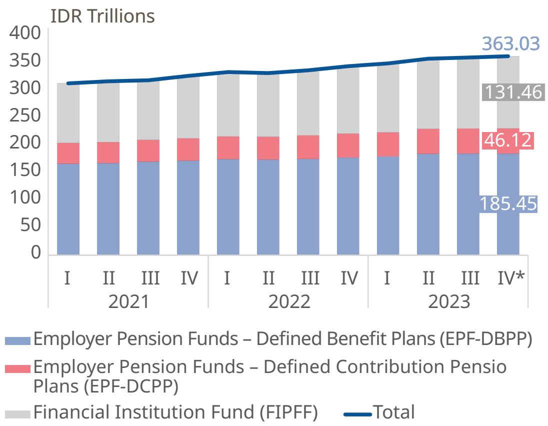
Source: OJK, processed

Graph 3.1.16 Pension Fund Contributions and Benefits Due



Note: *) Pension Fund Data for Q4/2023 as of November 2023
Source: OJK, processed

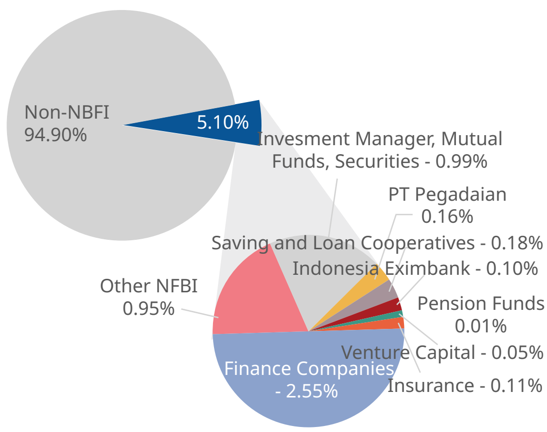
Graph 3.1.17 Pension Fund Assets



Note: *) Pension Fund Data for Q4/2023 as of November 2023
Source: OJK, processed

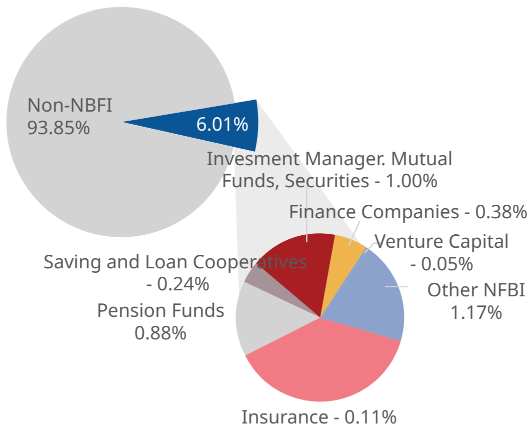
A limited degree of interconnectedness between the NBFI and banks suggested a relatively limited potential for risk contagion between the two sectors. On the asset side, the share of banks' productive assets in NBFIs to total productive assets of banks in 2023 was only 5.10%. This was dominated by bank loans for finance companies (Graph 3.1.18). Similarly, on the liability side, bank liabilities towards NBFIs accounted for just 6.01% of total bank liabilities in 2023. Deposits constituted the majority of these liabilities (Graph 3.1.19). Given this limited exposure, the potential for risk contagion between banks and NBFIs is expected to be relatively contained.

Graph 3.1.18 NBFI Interconnectedness with Banking Industry on Productive Asset Side



Source: Bank Indonesia, processed

Graph 3.1.19 NBFI Interconnectedness with Banking Industry on Liability Side



Source: Bank Indonesia, processed

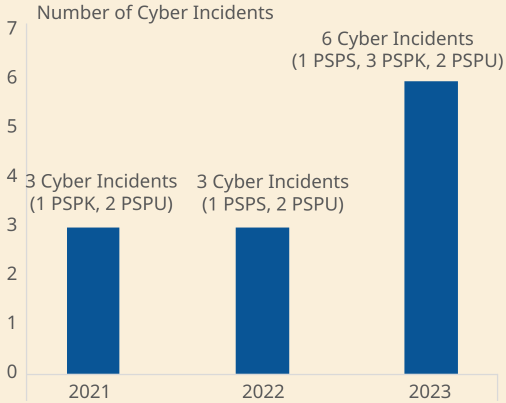
On the other hand, cyber risks arising as a result of digitalisation in the financial sector were relatively well mitigated, supported by stronger regulation and supervision of financial service providers. Financial services sector digitalisation has introduced potential cyber risks that could affect the financial industry through three channels: (i) operational system activities that cannot be replaced easily if they experience disruption (lack of availability); (ii) reduced level of consumer confidence in the financial services industry (loss of confidence); (iii) compromised data integrity that interferes with industry activities. Therefore, strengthening resilience and cybersecurity for financial service providers regulated and supervised by Bank Indonesia is important in anticipating the evolving threats to the digital financial sector (Box 3.1).

Box 3.1 Resilience and Cybersecurity for Financial Service Providers Regulated and Supervised by Bank Indonesia

The development of Financial Sector Technology Innovation (ITSK) increases cyber risk exposure to the financial sector. The acceleration of payment system digitalisation through improved payment system services and transaction efficiency as well as the expansion of the digital economy and finance ecosystem during 2023 have increased digital banking transactions in the financial sector. Global data released by Check Point and the Financial Services Information Sharing and Analysis Center for 2023 underscores this concern, revealing a global 9% increase in cyberattacks targeting the financial sector[21]. Based on the current cybersecurity landscape, Indonesia is included in the list of top 10 countries that are sources and destinations of cyberattacks[22]. Over the past three years, Bank Indonesia has observed an increase in cyber incidents, particularly among Payment System Operators (Graph B3.1.1).

Bank Indonesia mitigates cyber risk in the payment system by ensuring financial service providers comply with Risk Management and Information System Security Standards (MRSI). Bank Indonesia Regulation No.23/6/PBI/2021 concerning Payment Service Providers (PJP) and PBI No.23/7/PBI/2021 concerning Payment System Infrastructure Providers (PIP) mandate adherence for PJPs and PIPs based on their designated category. MRSI coverage includes internal control, Data Centre/Disaster Recovery Centre, Fraud Detection System, Information Technology Audit, Financial Statement Audit, and Information Security. The PJP/PIP categories are divided into Systemic Payment System Operators (PSPS), Critical Payment System Operators (PSPK), General Payment System Operators (PSPU), and Small-scale PSPU Non-Bank Fund Transfer Companies (PTD-BB) (Figure B3.1.1). Bank Indonesia ensures MRSI compliance through an assessment of the MRSI action plan submitted by PJPs and PIPs.

Graph B3.1.1 Number of Cyber Incidents Recorded under Bank Indonesia Supervision



Notes:
PSPS: Systemic Payment System Providers
PSPK: Critical Payment System Providers
PSPU: General Payment System Providers
Source: Bank Indonesia, processed

Bank Indonesia conducts monitoring and inspections on various Information Technology (IT) aspects, including cyber risks. PJPs and PIPs submit regular reports on payment system availability and disruptions to Bank Indonesia to notify of general IT disruptions. Based on the results of BI assessments for the 2023 period, system disruptions were relatively controlled and had minimal impact on the overall performance of payment system services. In addition to the regular reports, PJPs and PIPs submit incident reports for any disruptions in payment transaction processing, including

21 National Cyber and Cryto Agency (BSSN), Payment System Cyber Risk Profile, 2023 available on https://www.bssn.go.id/wp-content/uploads/2024/02/Infografis-Profil Risiko-Siber-Sistem-Pembayaran.pdf (accessed 9th March 2024).

22 BSSN, Indonesia Cybersecurity Landscape, 2022, available on BSSN Cloud (accessed 21st February 2024).

Figure B3.1.1. MRSI Coverage

MRSI Compliance	Data Center/ Data Recovery Center	Fraud Detection System	IT Audit	Information Security
PSPS	• At a minimum, maintaining both DC and DRC located at separate sites and operating simultaneously with identical information system infrastructure capacity, as determined by a business impact analysis. • Conducting DRC testing at least once a year, including cybersecurity resilience simulations.	Required to maintain FDS capable of detecting account activites, network activities, and transactions.	• Conducting an IT audit performed by an external independent IT auditor registered in an authority or association at least once a year. • Conduct a comprehensive penetration test performed by an external independent IT auditor registered in an authority or association at least once a year.	Required to obtain international standard certification related to the information security of the main payment system activities.
PSPK	• At a minimum, maintaining both DC and DRC located at separate sites with identical information system infrastructure capacity, as determined by a business impact analysis. • Conducting DRC testing at least once a year, including cybersecurity resilience simulations.	Required to maintain FDS capable of detecting account activites, network activities, and transactions.	• Conducting an IT audit performed by an external independent IT auditor registered in an authority or association at least once a year. • Conducting a comprehensive penetration test performed by an external independent IT auditor registered in an authority or association at least once a year.	Required to obtain national standard certification related to the information security of the main payment system activities.
PSPU	• At a minimum, maintaining both DC and DRC located at separate sites with equivalent information system infrastructure capacity, as determined by a business impact analysis. • Conducting DRC testing at least once a year, including cybersecurity resilience simulations.	Required to maintain FDS capable of detecting account activites, network activities, and transactions.	• Conducting an IT audit performed by an external independent IT auditor registered in an authority or association at least once a year. • Conducting a comprehensive penetration test performed by an external independent IT auditor at least once a year.	At a minimum, adopting standard information security best practices.
Small-scale PSPU PTD BB (license category 3)	• At a minimum, maintaining both DC and DRC located at separate sites, when supported by information system. • Conducting DRC testing at least once a year.	Conducting fraud management practices.	• Conducting an IT audit by an independent IT auditor at least once a year, which includes a security assessment of the information system for fund transfer services.	Conducting information security practices.

Source: Bank Indonesia, processed

cyber incidents. Based on the cyber incident report, Bank Indonesia conducts inspection activities referring to security standards issued by the National Institute of Standards and Technology (NIST).

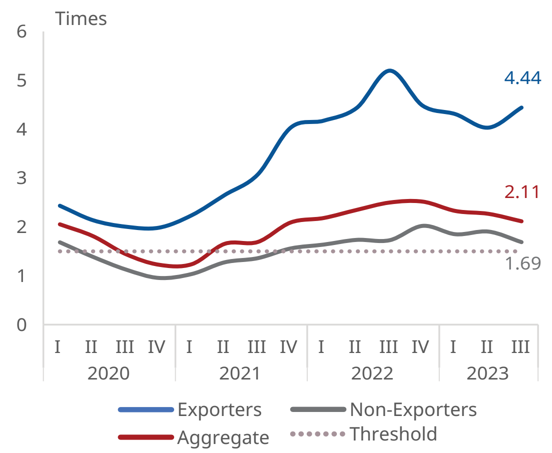
Bank Indonesia continuously strives to improve information system resilience and security for industry participants through end-to-end policy formulation. Bank Indonesia is currently formulating a Cybersecurity and Resilience Policy that focuses on four main pillars: governance, prevention, handling, as well as supervision and collaboration. In general, there are three important steps targeted by the regulations, namely increasing the cybersecurity and resilience of service providers, along with cyber risk management, and strengthening supervision and collaboration in the prevention and handling of cyber incidents. Referring to the authority of Bank Indonesia as stipulated in the P2SK Act, the scope of the service provider does not only include payment system operators, but also money market and foreign exchange market players.

3.2 Corporate and Household Repayment Capacity Maintained

High economic uncertainty amidst higher for longer policy rates and dynamic commodity prices had a limited impact on corporate performance. Despite remaining positive in 2023 at Indonesia's major commodity companies (coal, palm oil, and nickel), profit margins declined due to falling commodity prices. The decline was in line with the Export Commodity Price Index (IHKEI) of major commodities in Indonesia, which corrected to negative as the commodity boom period in 2021-2022 ended. Previously high-growth exports of coal, palm oil, and nickel moderated in 2023 as a corollary of falling commodity prices, thus impacting corporate performance.

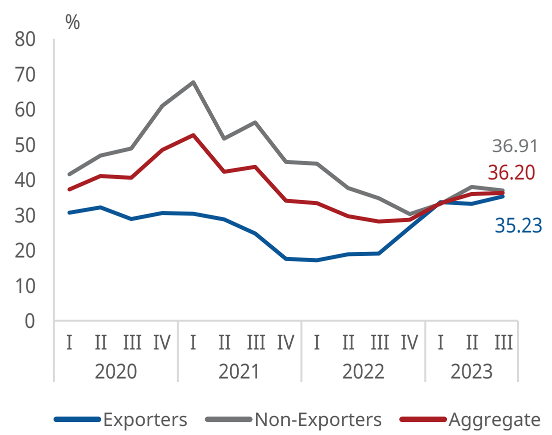
Despite high interest rates and declining commodity prices, corporate repayment capacity was well maintained. This was evidenced by corporate ICR above 1.5x both as an aggregate and in the exporter and non-exporter corporate groups (Graph 3.2.1). Debt at Risk (DaR) also remained relatively low (Graph 3.2.2). Though maintained, the ICR and DaR ratios tracked upward trends compared with 2022. This aligns with the combined effect of restrained corporate income and increasing interest rate expenses during a period of high interest rates and falling commodity prices.

Graph 3.2.1 Interest Coverage Ratio (ICR)



Source: Bloomberg and Indonesia Stock Exchange (IDX), processed

Graph 3.2.2 Debt at Risk (DaR)



Source: Bloomberg and Indonesia Stock Exchange (IDX), processed

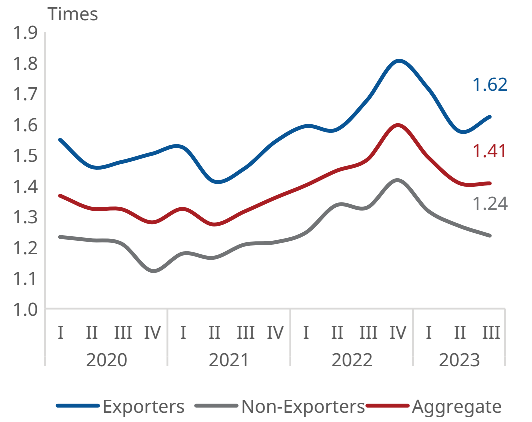
Maintained corporate repayment capacity was supported by ample liquidity. This was reflected in the current ratio and cash ratio of the corporate sector in 2023, which were recorded at 1.41x and 0.41x, respectively as an aggregate. While remaining above pandemic period levels (Graphs 3.2.3 and 3.2.4), both indicators declined in line with slowing sales and early loan repayments.

Declining corporate excess savings in several sectors indicated a potential rise in credit demand. Corporate deposit growth in 2023 slowed to 5.34% (year-on-year), significantly lower that the 13.31% (year-on-year) recorded in 2022 (Graph 3.2.5). The slowdown in deposit growth was driven by a decrease in Free Cash Flow (FCF) in several main sectors (Mining, Electricity, Gas, Water, and Transportation) (Graph 3.2.6).

Maintained corporate resilience was also reflected by the improved corporate Probability of Default (PD) in 2023. In general, corporate PD can be observed based on financial statement indicators (Fundamental PD[23]) and market

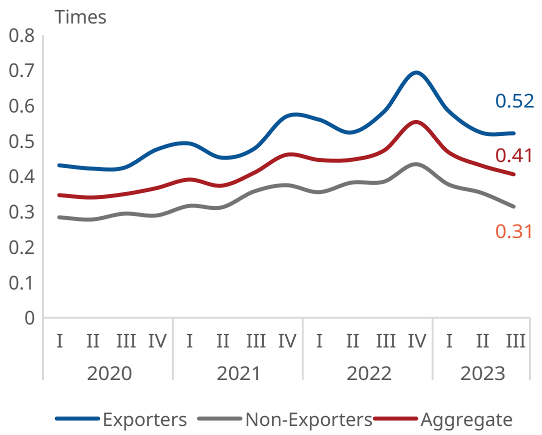
23 Fundamental PD is corporate PD based on financial statement indicators.

Graph 3.2.3 Current Ratio



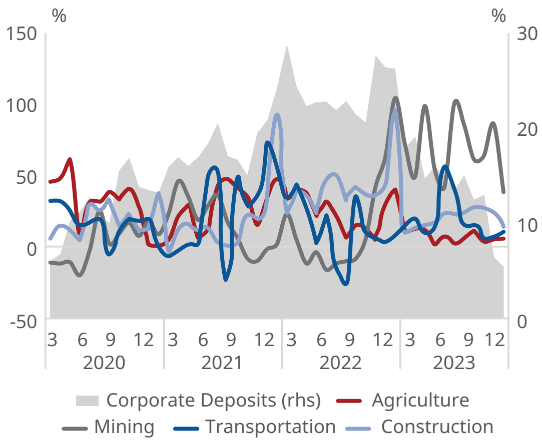
Source: Bloomberg and Indonesia Stock Exchange (IDX), processed

Graph 3.2.4 Cash Ratio



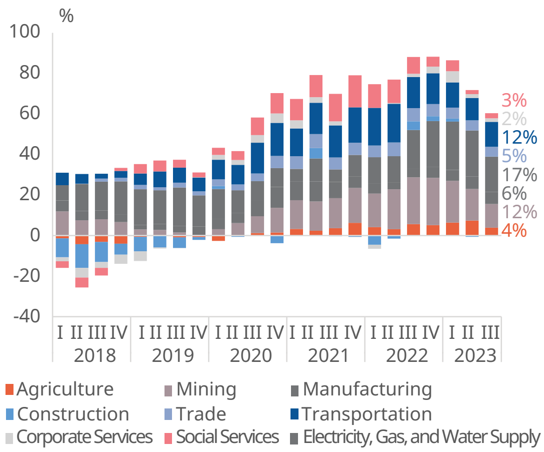
Source: Bloomberg and Indonesia Stock Exchange (IDX), processed

Graph 3.2.5 Bank Deposit Growth



Source: Bank Indonesia, processed

Graph 3.2.6 Free Cash Flow

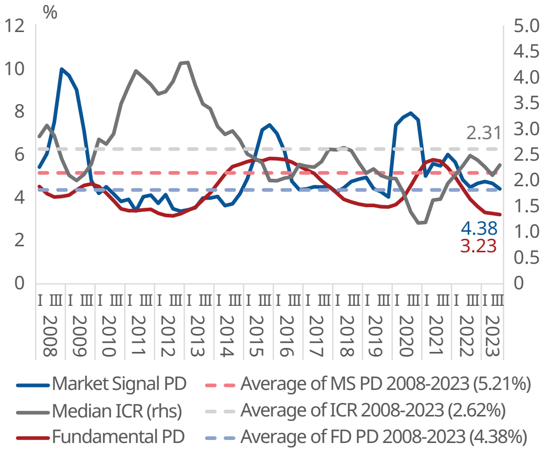


Source: Bloomberg, processed

indicators (Market Signal PD[24]). In 2023, as an aggregate, the corporate sector recorded a fundamental PD of 3.23%, and a market signal PD of 4.38%. These figures are both lower than the historical average[25] of fundamental PD at 4.38% and market signal PD at 5.21% (Graph 3.2.7). The downward trend observed in both PD fundamentals and market signals since the post-pandemic period suggests low default risk, potentially increasing the demand for corporate financing.

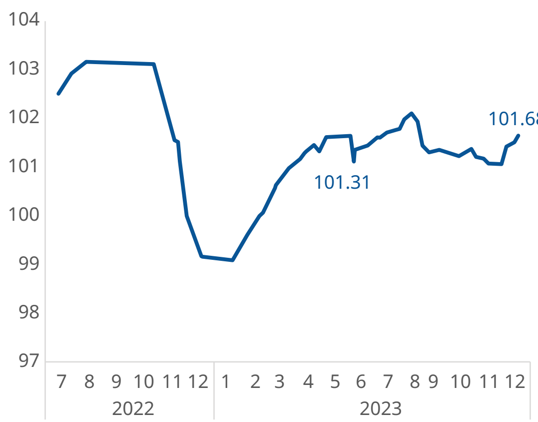
Solid corporate resilience is expected to withstand external spillovers from global dynamics, namely the economic slowdown and property crisis in China. In general, corporations with major Chinese markets exhibit higher repayment capabilities compared to others with major markets outside China. China's economic slowdown is expected to impact corporate exports to China. Consequently, the decline in ICR and increased risk of corporate debt (debt to EBITDA) would also be limited. Moreover, Indonesia's exposure to the Chinese property market has been limited. Indonesian holdings of Chinese property bonds account for only a small fraction (US$1 million) of the total market value (US$81 million). Bond performance was relatively stable, as evidenced by a price index increase to 101.6 in December 2023, compared with 101.3 in 2022 (Graph 3.2.8). Despite waning investment interest in Chinese developer bonds, Indonesian exports

Graph 3.2.7 Corporate ICR, Market Signal, and Fundamental Probability of Default



Source: Capital IQ & Bloomberg, processed

Graph 3.2.8 Indonesian-owned Chinese Developer Corporate Bond Price Index



Source: Bloomberg, processed

24 Market Signal PD is a corporate PD based on market indicators.

25 Historical average for the 2008 – 2023 period.

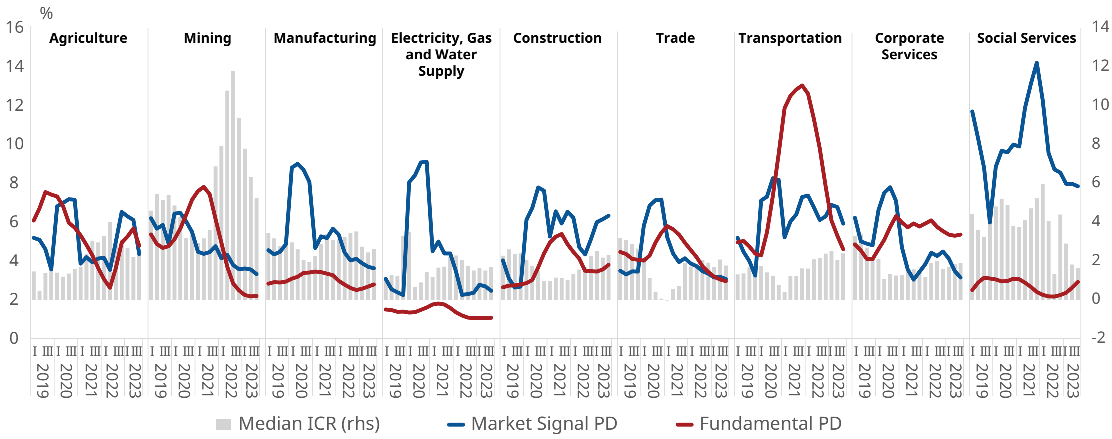
of housing-related products to China experienced significant growth (27.75% yoy) in 2023 compared with 2022 (Graph 3.2.9). Furthermore, Indonesia's property sector also maintained positive performance despite the Chinese property crisis (Box 3.2).

While corporate resilience was maintained as an aggregate, a closer look revealed vulnerabilities within specific groups. The construction sector experienced an increasing PD trend to above 6% in 2023 (Graph 3.2.10). Meanwhile, based on the ICR classification, corporate PD with low ICR (below threshold value 1) have not improved, at 14.45% in 2023 compared with the second quarter of 2023 at 13.14%. Notably, high corporate PD with low ICR was in line with the deteriorating performance observed before the Covid-19 period. Corporate sector performance in this group was reflected by the lack of recovery in margins and corporate activities in the third quarter of 2023, which was lower than in 2019 (Graph 3.2.11). Furthermore, it is necessary to pay close attention to sectors that have experienced a significant decline in liquidity, especially those accompanied by high debt levels and substantial sales declines. These sectors include the wood industry, leather and footwear industry, animal husbandry, plantation crops, information and telecommunications, construction, and pharmaceutical chemical industry (Table 3.2.1).

Graph 3.2.9 Overall Price of Chinese Developer Corporate Bonds and Indonesian Exports to China for Housing-related Products

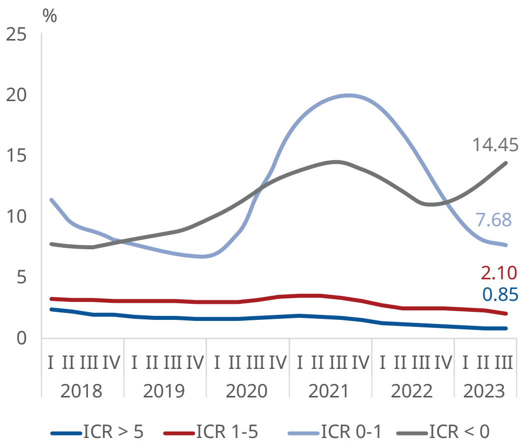
Source: Bloomberg, processed

Graph 3.2.10 Corporate Probability of Default by Sector



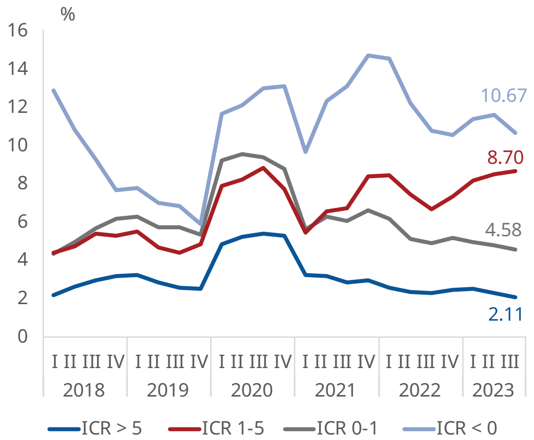
Source: Capital IQ & Bloomberg, processed

Graph 3.2.11 Fundamental Probability of Default by ICR Classification



Source: Capital IQ & Bloomberg, processed

Graph 3.2.12 Market Signal Probability of Default by ICR Classification



Source: Capital IQ & Bloomberg, processed

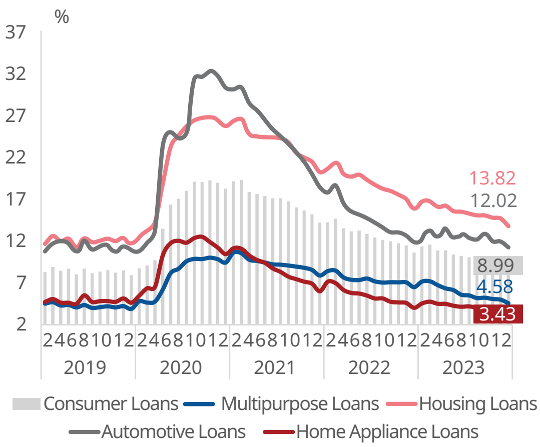
Table 3.2.1 Total Assets, Cash Growth, Sales Growth, and Debt to Equity Ratio (DER) by Subsector

Subsector	Cash Growth (%, yoy)		Sales Growth (%, yoy)		DER	
	Q2 2023	Q3 2023	Q2 2023	Q3 2023	Q2 2023	Q3 2023
Wood Industry	(0.34)	(0.74)	(0.24)	(0.38)	0.74	0.74
Leather and Footwear Industry	0.45	(0.72)	0.34	0.01	0.43	0.52
Animal Husbandry	(0.89)	(0.46)	(0.46)	(0.64)	0.66	0.62
Plantation Crops	(0.17)	(0.22)	(0.03)	(0.05)	0.61	0.60
Information and Telecommunications	(0.23)	(0.21)	0.07	0.06	1.06	1.02
Construction	(0.15)	(0.16)	0.11	0.05	0.77	0.80
Pharmaceutical Chemical Industry	(0.22)	(0.15)	(0.05)	(0.06)	0.61	0.60
Other Financial Services	(0.72)	(0.43)	(0.86)	(0.97)	0.02	0.02
Coal and Lignite Mining	0.16	(0.29)	0.36	0.02	0.22	0.20
Sale of Motor Vehicles and Motorcycles and Repair Industry	(0.26)	(0.23)	(0.01)	(0.10)	0.26	0.23
Transportation Equipment Industry	(0.19)	(0.21)	0.18	0.11	0.43	0.46
Wholesale and Retail Trade	(0.19)	(0.20)	0.17	0.10	0.40	0.43
Land Transportation	(0.09)	(0.14)	0.48	0.29	0.18	0.18
Tobacco Processing	(0.40)	(0.13)	0.02	(0.02)	0.13	0.08
Food Crops	0.17	(0.13)	(0.11)	(0.14)	0.00	0.00
Other Services	0.02	(0.01)	(0.05)	(0.10)	0.29	0.30
Health Services	0.01	(0.01)	0.04	0.11	0.23	0.23
Real Estate	0.23	0.01	0.43	0.26	0.19	0.19
Corporate Services	(0.27)	0.12	0.07	0.05	0.23	0.22
Accomodation and Food Service Activities	0.11	0.13	0.33	0.17	0.49	0.49
Storage and Transportation Support Services, Post, and Courier Services	0.23	0.15	0.28	0.12	0.90	0.70
Food and Beverages Industry	0.19	0.15	0.08	0.06	0.59	0.57
Sea Freight	0.20	0.15	0.36	0.15	0.26	0.21
Textiles and Textile Products Industry	(0.20)	0.16	(0.16)	(0.23)	(3.17)	(3.30)
Metaliferous Ore Mining	0.24	0.27	0.12	0.02	0.33	0.33
Non-Metalic Mineral Products Industry	0.13	0.30	0.10	0.06	0.40	0.37
Rubber and Plastic Industry	(0.25)	0.31	(0.15)	(0.19)	0.47	0.43
Paper and Paper Products, Printing and Reproduction of Recorded Media Industry	0.18	0.31	0.01	(0.08)	0.55	0.55
Fabricated Metal Products and Electronics Industry	0.40	0.49	(0.02)	(0.00)	0.67	0.64
Basic Metal Industry	0.00	0.55	(0.10)	(0.21)	1.14	1.16
Machinery and Equipment Industry	0.38	0.56	(0.06)	0.08	0.57	0.57
Air Transportation	1.90	1.04	0.95	0.62	(2.16)	(2.14)
Fisheries	(0.22)	1.08	0.01	(0.08)	0.32	0.28
Furniture Industry	(0.38)	1.46	(0.53)	(0.54)	0.72	0.67

Source: Bloomberg, processed

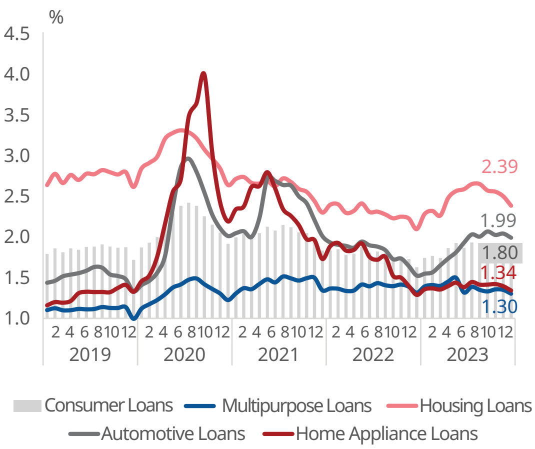
In line with maintained corporate resilience, household credit risk was also relatively manageable. This was reflected in the relatively well maintained NPL and LaR ratios. At the end of 2023, household NPL was recorded at 1.80%, below the 5% threshold (Graph 3.2.13). Meanwhile, the LaR ratio of household loans followed a downward trend throughout 2023, reaching 8.99% by year-end (Graph 3.2.14). This represents a considerable improvement compared with the 10.66% recorded in 2022. Based on loan segment, household credit risk was relatively low, including multipurpose loans, housing loans (KPR), automotive loans (KKB), and home appliance loans.

Graph 3.2.14 LaR of Household Loans



Source: Bank Indonesia, processed

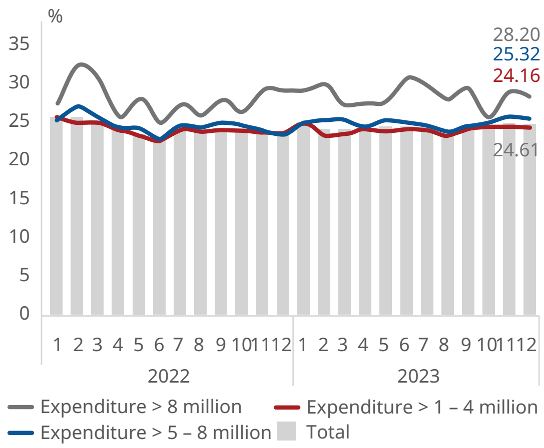
Graph 3.2.13 NPL of Household Loans



Source: Bank Indonesia, processed

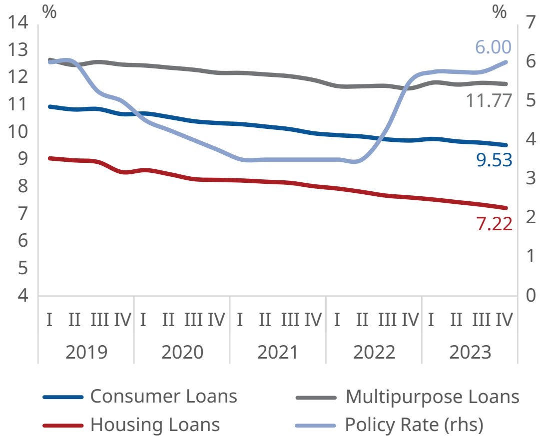
Maintained household repayment capacity contributed to mitigate risk within the household sector. This was reflected in the household Debt Service Ratio (DSR), which stood at 24.61% in December 2023 (Graph 3.2.15). While this represents a slight increase compared with 23.55% in December 2022, it remains within reasonable limits. An analysis based on spending bracket revealed that high-end households with monthly expenditures exceeding Rp8 million exhibit the highest DSR. This suggests that individuals with higher spending patterns, as a proxy of high-income, have greater access to financial services, leading to a larger portion of income allocated towards loan repayments. Conversely, lower-

Graph 3.2.15 **Household Debt Service Ratio**



Source: Bank Indonesia, processed

Graph 3.2.16 **Average Household Loan Rate**

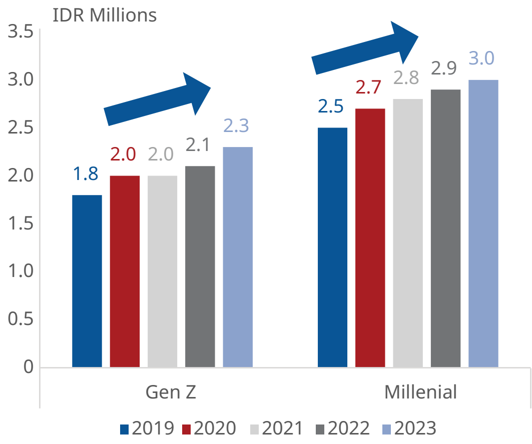


Source: Bank Indonesia, processed

income households dedicate a larger portion of their income to consumption, resulting in a lower portion of income for loan repayments.

Mitigated household risk was supported by a downward trend in household consumer lending rates and an increase in income in 2023. The interest rate on household consumer loans dropped to 9.53% in 2023. Interest rates on housing and multipurpose loans, which constitute a substantial portion of household loans, also decreased (Graph 3.2.16). The decrease in interest expenses affected household repayment capacity. In addition, higher incomes for productive-age workers also increased the capacity to repay household loans in 2023 (Graph 3.2.17).

Graph 3.2.17 **Average Individual Wage by Generation**



Source: Statistics Indonesia, processed

Box 3.2 Domestic Property Sector's Performance Amid China's Property Sector Crisis

The Chinese property crisis began with the phenomenon of excessive lending by property developers[26]. In response, the Chinese Government implemented a policy known as the "Three Red Lines"[27]. The policy, issued in August 2020, classifies property companies into four zones (green, yellow, orange and red) with each zone representing a different level of financing compliance requirements[28]. The policy caused financial difficulties for a number of property developers, however, and further exacerbated the Chinese property crisis, as reflected in a drastic decline in property demand and a contraction in property prices.

In response to the crisis, Chinese authorities issued repressive policies in an attempt to rescue the property sector. The policy aims improve the performance of property developers and increase public purchasing power. The IMF[29] categorised these policies into three areas: demand-side measures, supply-side measures and loan restructuring initiatives[30]. Despite these efforts, China's property sector continued to experience a downward trend through the end of 2023. The shock caused by China's property crisis has raised concerns over its potential spillover effects on the performance of the domestic property sector.

The performance of Indonesia's residential property sector was maintained, however, despite the unfolding crisis in China's property sector. Residential property sales in Indonesia continued a positive trend in 2023. Property sales growth in the primary market was recorded at 3.37% by the end of 2023, driven by sales of large houses (Graph B3.2.1). Meanwhile, new property sales in China remained on a downward trajectory throughout 2023 (Graph B3.2.2).

Positive residential property price growth in Indonesia demonstrated further signs of optimism. Residential property price growth in primary market at the end of 2023 was recorded at 1.74%, driven by the growth of small and

26 Excessive lending by property developers occurred in the period before the Covid-19 Pandemic

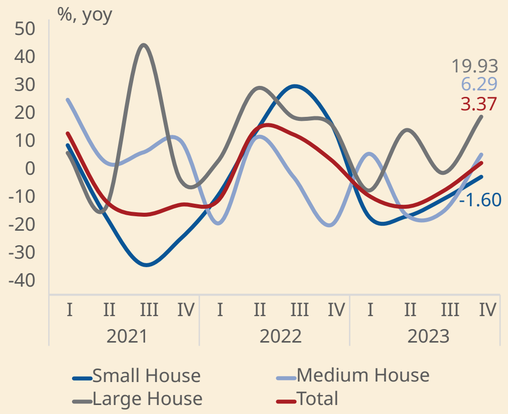
27 Ke, D., & Xie, C. (2023). Analysis of the Development Process and Trend of China's Real Estate Industry. *Advances in Economics, Business and Management Research*.

28 There are 3 (three) property loan requirements according to the "Three Red Lines": (i) loan does not exceed 70% of assets, (ii) maximum loan value of 100% of equity, (3) ratio between cash and short-term loans maximum of one. The green zone indicates property companies that meet all requirements, the yellow zone indicates property companies that meet two of the three requirements, the orange zone indicates property companies that meet one of the three requirements, while the red zone indicates property companies that do not meet any of the requirements.

29 IMF. (2023). IMF Article IV Consultation with the People's Republic of China. Washington, DC.

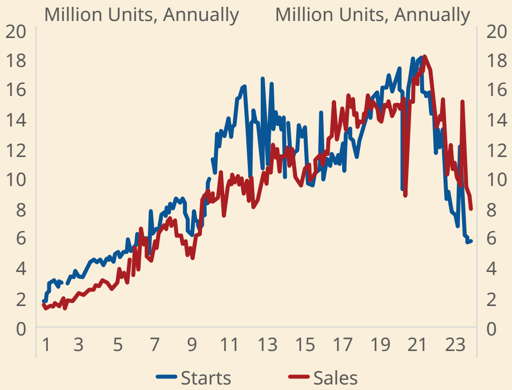
30 Demand-side policies include lowering minimum down payments, mortgage rates, as well as individual taxes on property transactions. Supply-side policies include stimulating financing for property developers and loosening NPL for the property sector. Meanwhile, restructuring policies include bank financing for the completion of residential projects and financing assistance from local governments to help problematic projects.

Graph B3.2.1 Growth of New Housing Sales in Indonesia



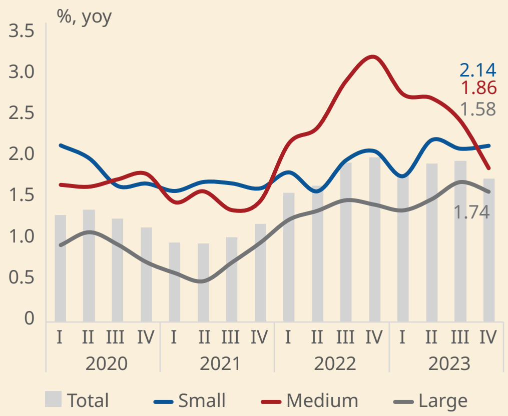
Source: Bank Indonesia, processed

Graph B3.2.2 New Home Sales Growth in China



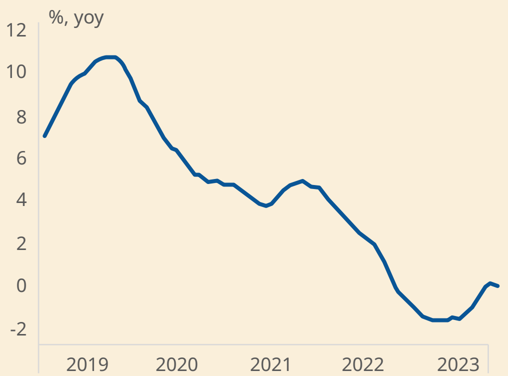
Source: Trading Economics, National Bureau of Statistics of China

Graph B3.2.3 Indonesian Property Prices in Primary Market



Source: Bank Indonesia, processed

Graph B3.2.4 Chinese Property Price in Primary Market



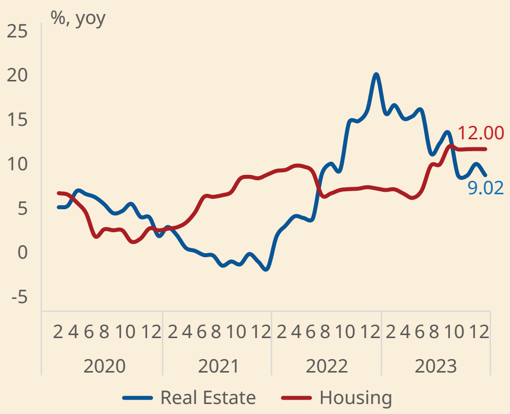
Source: Trading Economics, National Bureau of Statistics of China

medium houses (Graph B3.2.3). Conversely, the residential property price growth in China was likely to contract throughout 2023, indicating that demand for residential property has not recovered (Graph B3.2.4).

Indonesia's residential property sector is expected to see continued demand growth. This is reflected by industrywide credit growth in the real estate sector, which reached 9.02% (yoy) in December 2023 (Graph B3.2.5). This stands in contrast to China's property market, where property credit growth continued to moderate. This slowdown was likely influenced by the ongoing lack of recovery in demand for financing.

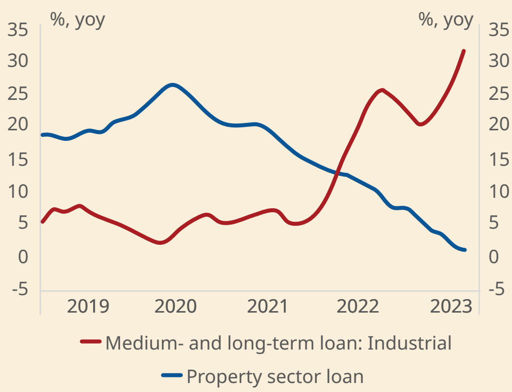
Optimism concerning demand for household loans in the property sector was also reflected in the growth of housing loans in Indonesia. Housing loans increased 12.00% (yoy) in December 2023, representing

Graph B3.2.5 Property Credit Growth in Indonesia



Source: Bank Indonesia, processed

Graph B3.2.6 Property Credit Growth in China

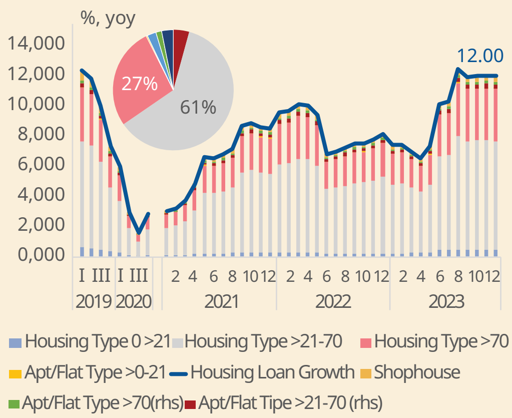


Source: Wind, PBoc, in Goldman Sachs Global Investment Research

a significant increase on the 5.07% growth recorded in the same period of 2022. Medium houses (21-70m^2) were the primary driver of this growth (Graph B3.2.7).

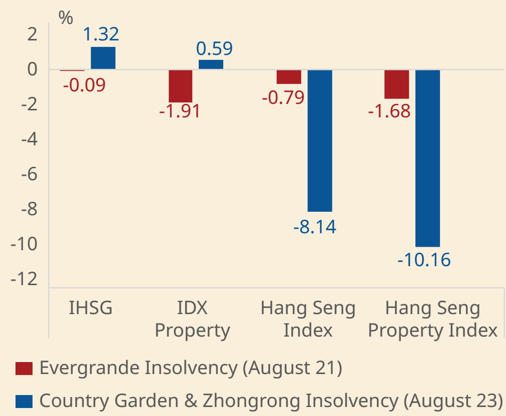
Indonesia's capital market also indicated persistent confidence in the domestic property sector. This was evidenced by the relatively strong performance of Indonesian property stocks during the 2023 Chinese developers' default event (Graph B3.2.8). In addition, stock issuance activities both through IPOs and rights issues in the property sector as well as sectors that have exports related to Chinese property recorded growth in fundraising value to support business expansion (Graph B3.2.9).

Graph B3.2.7 Household Housing Loans (2019 to 2023)



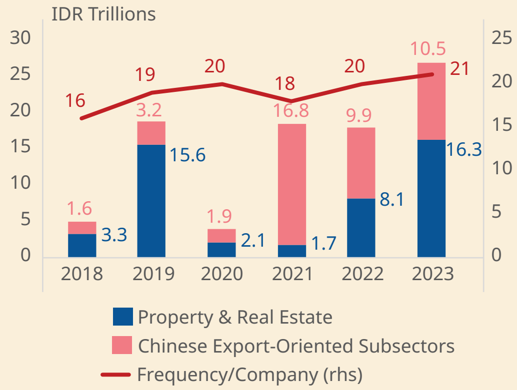
Source: Bank Indonesia, processed

Graph B3.2.8 Performance of JCI & Hang Seng during Default Events



Source: Bloomberg, processed

Graph B3.2.9 Development of Stock Issuance in Chinese Property-Related Sectors

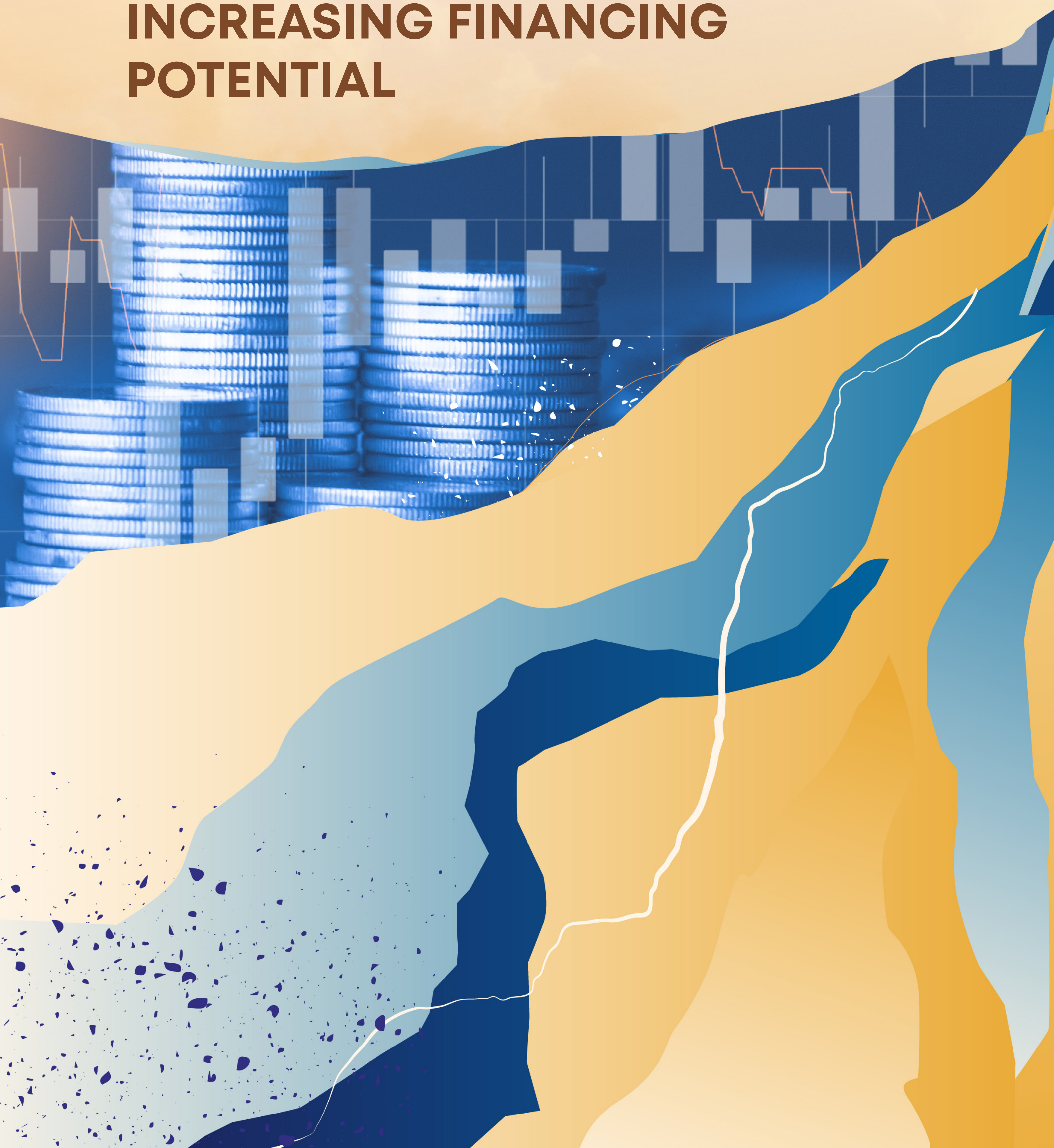


Source: Indonesian Central Securities Depository (KSEI), Indonedia Stock Exhange (IDX), processed

Going forward, potential contagion in the long term from the pressure of the Chinese property sector to the Indonesian economy demands vigilance. The transmission channels include the trade channel that affects corporate and household performance, and the financial channel that affects investor/lender risk-appetite in the property market, thus affecting credit supply. China's property crisis provides lessons learned regarding the need to strengthen data and monitoring tools for: (i) the early detection of indications of property bubbles; (ii) strengthening fiscal, sectoral, macro-microprudential policy coordination; and (iii) appropriate timing of policy interventions to mitigate risks and revive the property sector.

Chapter 4

ECONOMIC AND FINANCIAL INCLUSION INCREASING FINANCING POTENTIAL



Financing disbursed to micro, small and medium enterprises (MSMEs) in 2023 grew positively, supported by the strong role of banks and the non-bank financial industry (NBFI) in promoting economic and financial inclusion. MSME loans maintained positive growth in 2023 at 8.03% (yoy), albeit slower than the previous year. MSME loan growth was mainly contributed by the micro segment and supported by government policies related to the People's Business Loan (KUR) program. The role of NBFI, particularly finance companies and FinTech, also contributed to MSME financing. Financing innovation through digital channels was one of the strategies deployed by financial institutions to increase MSME access to finance. MSME loan growth utilising various financing models by banks became a catalyst for increasing the Macroprudential Inclusive Financing Ratio (RPIM). Further supporting fulfilment of the RPIM ratio, Bank Indonesia strengthened synergy with government ministries/agencies and financial institutions in terms of developing business models, facilitating business matching for MSME financing, as well as recognising outstanding contributions through the Bank Indonesia Award (BI Award) for banks that actively promote inclusive financing.

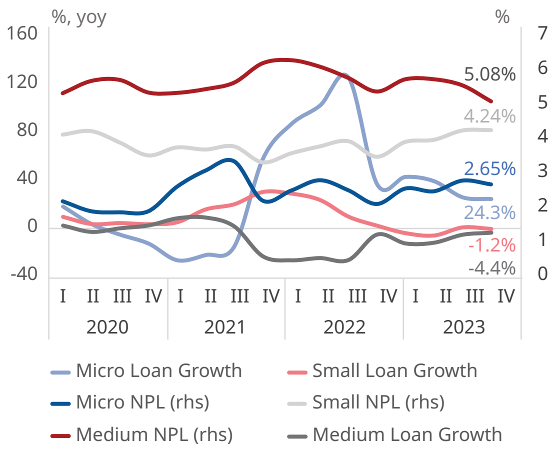
Economic and financial inclusion also progressed well on the sharia side through the Islamic commercial and social finance sectors, along with the empowerment of sharia entrepreneurs. Inclusive financing for MSMEs through sharia banking increased, primarily supported by financing extended to micro and small businesses. In addition to commercial financial channels, increasing Islamic social finance also improved financial inclusion. The Islamic social finance sector in Indonesia played a critical role in supporting national economic recovery efforts and improving community welfare through the utilization of zakat, infaq, sadaqah and waqf (ZISWAF) funds to boost purchasing power and business capabilities among disadvantaged economic groups (*dhuafa*). Innovation has been forthcoming both in terms of Islamic finance and sharia MSME empowerment to support development of the Halal Value Chain (HVC) ecosystem, particularly the agricultural, halal food and beverages, modest fashion and Muslim-friendly Tourism (MFT) sectors.

Synergy to accelerate the development of an inclusive and green economy and finance as well as consumer protection was strengthened further. The four pillars of the MSME program in 2023 were directed towards enhancing MSME capacity and productivity, particularly in the food sector, along with export-oriented and green MSME development, MSME digitalisation, and consumer protection. Boosting MSME capacity and productivity contributed to inclusive and sustainable economic growth. Targeted and selected trade promotion programs continued to expand access to both domestic and export markets, aiming to improve MSME performance. Supporting MSMEs in their digital transformation and strengthening the digital ecosystem remained crucial for enhancing national and international competitiveness. On the education and literacy front, integrated programs for increasing financial access and literacy with economic empowerment and the development of modules and user guides for MSMEs were prioritised through the creation of Digital Financial Services (DFS) user guidelines. Consumer protection strengthened within the policy framework to support the acceleration of inclusive and green financial and economic development. Consumer protection policies adhered to the MATRIC principles: Massive, Technology-based, Responsive, and Consumer Centric.

4.1 Positive Inclusive Financing Growth

Banks continued to drive economic and financial inclusion by disbursing MSME loans, particularly to the micro segment. MSME loan growth in 2023 remained positive at 8.03%(yoy) despite moderating from 10.47% (yoy) in 2022. Growing 24% (yoy), the micro segment was the main contributor to MSME loan growth in the reporting period (Graph 4.1.1). Furthermore, the share of MSME loans to total outstanding loans disbursed by the banking industry reached 20.6% in December 2023. MSME loan growth was also accompanied by a sound NPL ratio of 3.7%, though slightly higher than the 3.41% recorded in the previous year. From a sectoral perspective, MSME loan disbursements were supported by growth in key sectors, such as the Electricity, Gas and Water Supply, Transportation, Mining, and Agriculture (Table 4.1.1). The government's KUR loan program contributed to the increase in MSME loan growth significantly. KUR realisation in 2023 was recorded at Rp260.09 trillion, accounting for 87.57% of the Rp297 trillion target. Importantly, the KUR program maintained a low NPL ratio of 2.03%. As of December 2023, total outstanding KUR disbursements reached Rp482 trillion, benefiting 44.4 million debtors. Notably, 4.6 million new borrowers joined the program in 2023, with the micro segment as the largest beneficiary, dominating 81.5% or 3.7 million debtors.

Graph 4.1.1. MSME Loan Growth and NPL by Segment



Source: Bank Indonesia, processed

The government expanded KUR access and financial inclusion to new debtors by instituting tiered interest rates. In 2023, the government introduced changes to KUR policy

Table 4.1.2 MSME Loans by 9 Economic Sectors

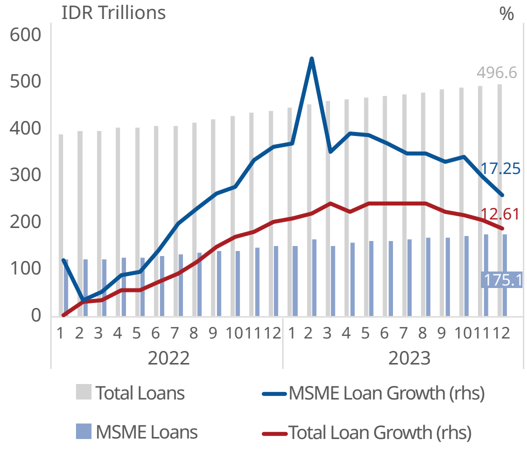
Sector	MSME Loan Growth (%, yoy)			MSME NPL (%)			Share (%)
	2021	2022	2023	2021	2022	2023	
1. Agriculture	24.59	30.65	13.94	1.86	1.54	2.15	18.00
2. Mining	11.57	-21.06	15.07	3.81	5.37	4.68	0.56
3. Manufacturing	13.80	5.84	7.07	4.23	3.45	4.06	9.97
4. Electricity, Gas, and Water Supply	-5.73	-6.37	23.41	3.50	2.88	2.22	0.30
5. Construction	-2.67	-9.24	4.23	12.75	10.81	9.62	3.74
6. Trade	13.54	8.76	4.99	3.53	3.58	3.89	51.72
7. Transportation	-1.95	8.10	15.30	4.50	3.17	3.36	3.58
8. Corporate Services	-6.92	5.77	10.20	5.41	3.96	4.11	4.68
9. Social Services	12.75	10.66	14.20	2.19	2.30	2.75	7.46
Total	**12.19**	**10.47**	**8.03**	**3.83**	**3.41**	**3.71**	**100.00**

Source: Bank Indonesia, processed

through Coordinating Minister for Economic Affairs Regulation No. 1 of 2023, which aims to expand access to KUR financing for new potential debtors and encourage the borrowers to level up. The fundamental adjustment to KUR policy involved the implementation of tiered interest rates/margins for repeat KUR borrowers. In addition, the government reformulated the criteria for potential KUR recipients to eliminate the practice of switching from commercial credit debtors to KUR debtors. As an effort to encourage KUR disbursements to ultra-micro enterprises, the interest rate/margin for super micro KUR (up to Rp10 million) was reduced to 3% from 6% previously. These adjustments aim to achieve a more targeted KUR program, encourage KUR debtors to level up, expand KUR disbursements to new debtors, and maintain the credibility of disbursements.

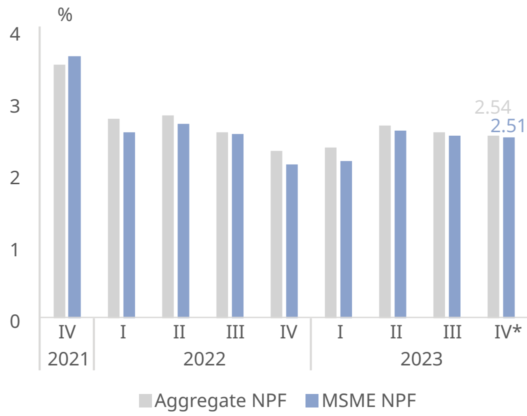
The increase in intermediation to MSMEs was also supported by finance companies and FinTech. In 2023, MSME financing disbursed by finance companies grew 17.25% (yoy), decelerating compared with the previous year (Graph 4.1.2). Growth was accompanied by a mitigated level of risk, with an NPF ratio of 2.51%. Meanwhile, MSME financing disbursed by FinTech lending experienced growth of 7.6% (yoy) (Graph 4.1.4). The support of innovation and digitalisation has been crucial for the growth of MSME financing by both finance companies and FinTech companies.

Graph 4.1.2. MSME Financing by Finance Companies



Source: OJK, processed

Graph 4.1.3. Risk of MSME Financing by Finance Companies

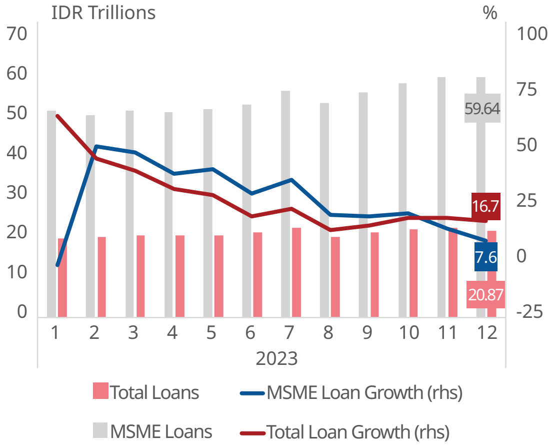


Note: Q4/2023 data as of November 2023
Source: OJK and Bank Indonesia, processed

These advancements provide convenience for previously unbanked MSMEs, allowing them to access alternative financial and financing services.

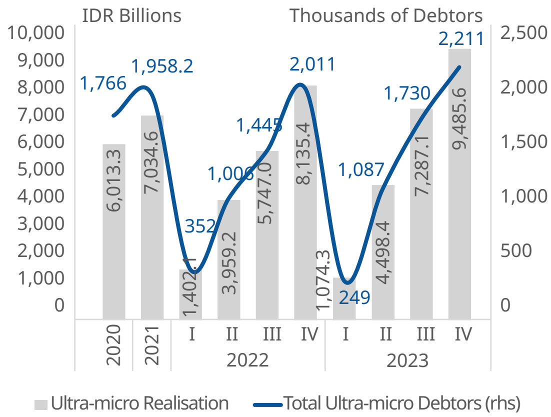
Ultra-micro financing also recorded solid growth. Financing disbursed to the ultra-micro segment, both by banks and NBFIs, also contributed to achieving the MSME credit target. Banks provided approximately Rp76.85 trillion of ultra-micro financing, of which Rp39.65 trillion was disbursed directly and Rp37.2 trillion channelled through NBFIs, including Permodalan Nasional Madani (PNM), PT Pegadaian, and cooperatives. Additionally, ultra-micro financing from the PIP fund continued to increase, reaching Rp9.48 trillion in 2023 and benefiting 2.21 million debtors (Graph 4.1.5). Most PIP ultra-micro financing was disbursed by PT Permodalan Nasional Madani (88%) as a direct distributor and PT Bahana Artha Ventura (7.3%) as a linkage distributor. To ensure business sustainability for the borrowers, ultra-micro financing provided by NBFIs was accompanied by mentoring and coaching programs. Women and community-based groups made up the majority of ultra-micro financing recipients.

Graph 4.1.4. MSME Financing by FinTech Lending



Source: OJK, processed

Graph 4.1.5. Ultra Micro Financing Disbursements



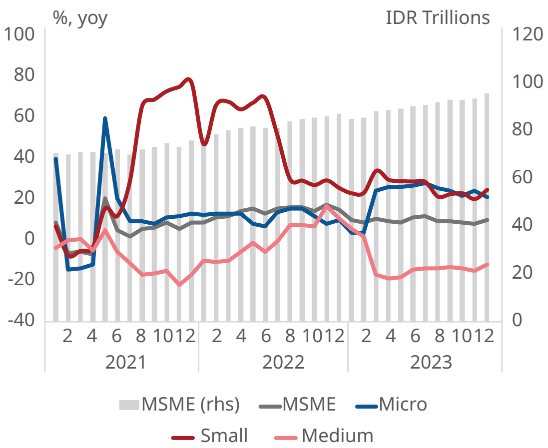
Source: Ultra-micro Credit Information System Program (SIKP), Directorate General of Treasury, Ministry of Finance, processed

4.2 Inclusive Islamic Finance Increased through Commercial and Social Financial Sectors

Inclusive Islamic finance grew positively, as reflected in the performance of MSME financing disbursed by sharia banks. As of December 2023, financing extended to MSMEs grew by a solid 9.84% (yoy), although this was lower compared with the 15.80% growth recorded in 2022 (Graph 4.2.1). Growth was primarily driven by increasing financing to micro and small enterprises. However, a deepening contraction in lending to medium enterprises, particularly non-KUR financing, restrained overall growth. KUR financing continued to increase, supported by KUR penetration through KBMI 3 and KBMI 1 banks. By sector, the growth of MSME financing in 2023 was mainly driven by increasing financing to the manufacturing industry and other services sectors, although this was relatively offset by a slowdown in lending to the trade and agricultural sectors in line with sluggish sectoral performance in terms of GDP in 2023.

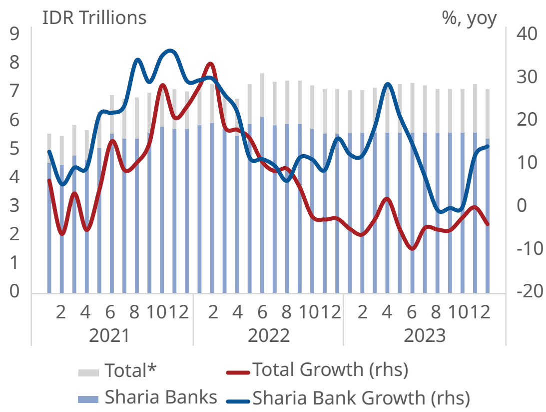
In addition to commercial financial channels, financial inclusion also improved, driven by the improving performance of Islamic social finance. The Islamic social finance sector is developing well, supported by the significant philanthropic potential of Indonesian society. The World Giving Index (WGI) 2023 published by the Charities Aid Foundation (CAF) named Indonesia as the most generous country globally for the sixth consecutive time since 2018. This predicate demonstrates the success of philanthropic activists, especially institutions and organisations managing zakat, infaq, sadaqah and waqf (ZISWAF), in raising, managing, and utilising funds from Islamic social finance. The improvement in collecting social funds from the community is demonstrated by the increase in bank deposits at sharia banking institutions from BAZIS, which grew 14.4% (yoy) (Graph 4.2.2). In addition, the funding and financing of Islamic finance through the banking industry also increased in 2023, mainly driven by the growth of zakat and infaq/sadaqah (Graph 4.2.3). The significant potential of Islamic social finance plays an important role in supporting national economic recovery efforts and improving community welfare through the utilisation of ZISWAF funds to boost the purchasing power and business capabilities of underprivileged groups (dhuafa').

Graph 4.2.1. MSME Financing by Sharia Banking



Source: Bank Indonesia, processed

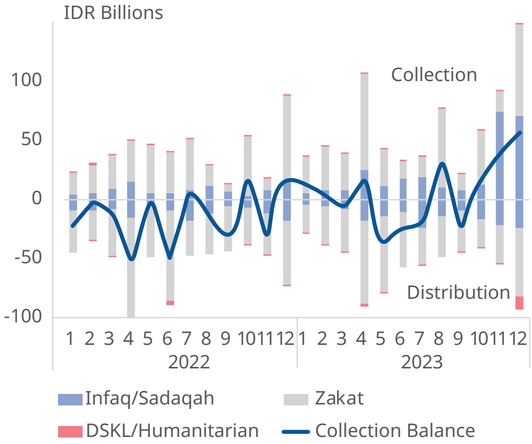
Graph 4.2.2. Development of BAZIS Deposits



*Total Customers of Zakat, Infaq and Sadaqah of Amil Institutions (BAZIS – Foreign, Private, and Joint)

Source: Bank Indonesia, processed

Graph 4.2.3. Collection and Distribution of Interbank Islamic Social Finance



Source: Bank Indonesia, processed

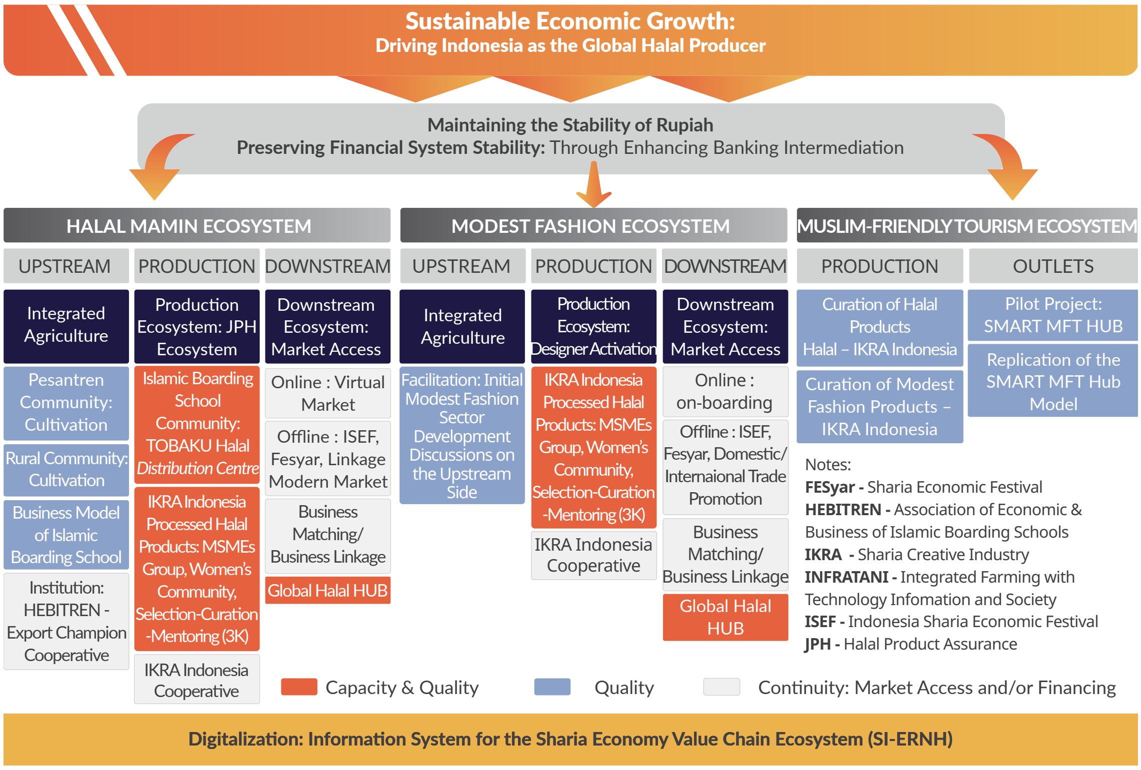
Various innovations were implemented to integrate Islamic commercial and social finance (blended finance) to empower underprivileged communities and help level up MSMEs. Integration of the Islamic commercial and social sectors was implemented in the form of developing productive waqf assets through the blended finance concept in Indonesia. One of the efforts that has been initiated since 2022 is international cooperation with the Awqaf Properties Investment Fund (APIF), which is a subsidiary of the Islamic Development Bank (IsDB). This effort aims to channel financing to various waqf asset development projects towards greater productivity. APIF prioritises community empowerment programs to improve welfare sustainably and support achievement of the Sustainable Development Goals (SDGs) targets. In addition, Indonesia also received global recognition for its innovative blended finance instrument in the form of the IsDB Prize for Impactful Achievement in Islamic Economic in 2023 for the Cash Waqf Linked Sukuk (CWLS) instrument, the concept of which has been adopted by several countries.

Islamic finance innovations were also accompanied by efforts to empower sharia entrepreneurs (MSMEs) to support the development of the Halal Value Chain (HVC) ecosystem. Bank Indonesia's role in driving sustainable economic growth has been strengthened in accordance with the P2SK Act. In this regard, sharia economic development in 2023 was strengthened to further promote inclusive and sustainable economic growth, and to advance Indonesia's vision as a global halal production hub. This involved developing the HVC ecosystem, especially halal food and beverages (including agriculture), modest fashion, and Muslim-friendly Tourism (MFT) (Figure 4.2.1). Development is also focused on shariah entrepreneurs in community-based MSME groups, namely pesantren (Islamic boarding schools), women, and rural communities, by strengthening the Capacity, Quality and Continuity (3K) aspects.

Development of the halal food and beverages HVC ecosystem, including the agricultural sector, is focused on supporting food security, price stability and inflation control. From the upstream side, the Integrated Farming with Technology Information and Society (INFRATANI) program develops business models for agricultural products in pesantren and rural communities to boost supply and productivity. From the production side, the Indonesia Sharia Creative Industry (IKRA) program is implemented by increasing the quantity and quality of sharia entrepreneurs in the halal food and beverages sector. On the downstream side, virtual markets are being developed and linkages with medium-large industries are being established, along with the expansion of access to the national and global halal market for network expansion and trade promotion. Three overseas trade promotions for halal food and beverages products were held in 2023 as part of market penetration efforts in the United States, Uzbekistan and Malaysia. Domestic promotions have also been conducted through involvement in ISEF 2023 and Muslim Life Fest 2023. Bank Indonesia, alongside relevant stakeholders, continues to support the strengthening of the halal product assurance (JPH) ecosystem through an end-to-end approach from the upstream, production and downstream sides to achieve the national halal certification target.

The development of modest fashion within the HVC ecosystem is aimed at supporting the stability of raw material prices and increasing financing intermediation. From the upstream side, Bank Indonesia initiated various collaborative efforts in 2023 to reduce reliance on imported of materials for the fashion

Figure 4.2.1 Development Framework for Sharia Entrepreneurs to Support HVC Ecosystem



Source: Bank Indonesia, processed

industry. This includes a joint study with the Indonesian Fibre Council to identify and map Indonesian textile companies capable of producing international standard textiles. In addition, it is also facilitating collaboration among fashion industry entrepreneurs to maximise their control over the domestic market and achieve global brand recognition. From the downstream side, through the IKRA program, Bank Indonesia collaborated in 2023 with strategic partners to carry out and participate in four domestic trade promotions and six overseas trade promotions as part of a market penetration trial in the UAE, France, South Africa, UK, South Korea and Japan as part of the Indonesia International Modest Fashion Festival (IN2MF) event series.

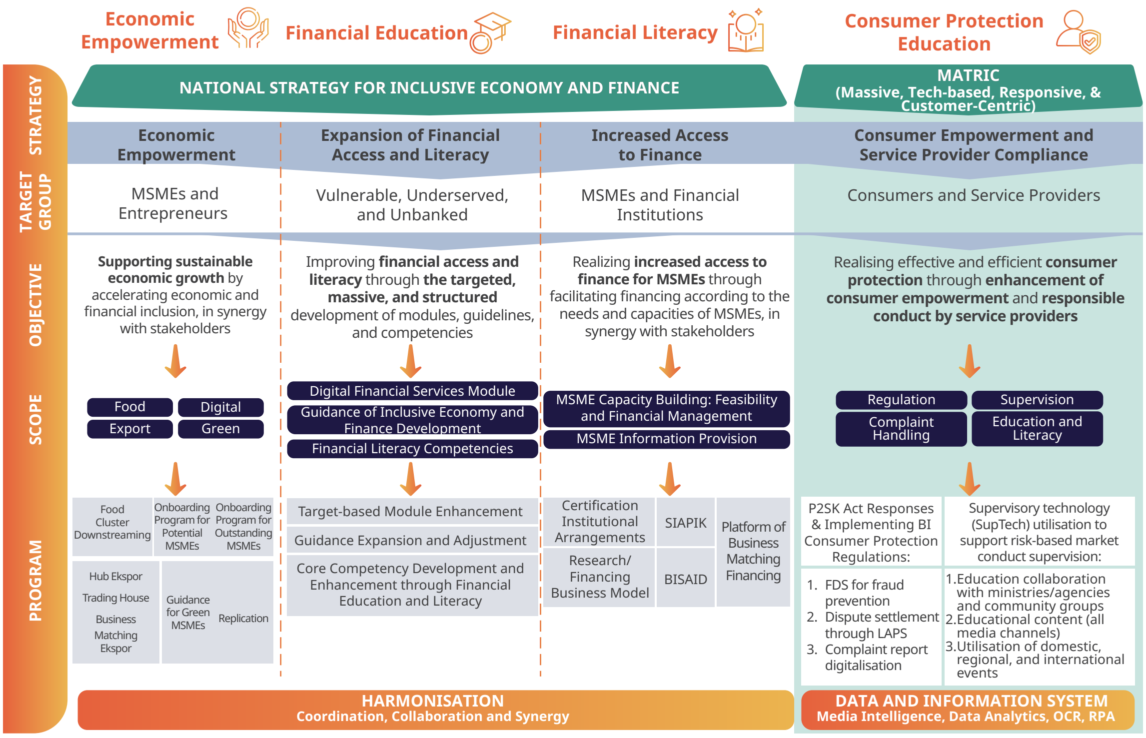
Development of the Muslim-friendly Tourism (MFT) sector amplified the evolution of the halal food and beverages and modest fashion sectors to drive inclusive economic and financial growth. This is because most MFT is dominated by MSMEs operating in fields such as accommodation, transportation, and souvenir sales, which have significant economic leverage for these industries. To optimise communication, coordination and collaboration among stakeholders in MFT development, the Indonesia Muslim Friendly Tourism Forum Working Group was established. In 2023, Bank Indonesia, in conjunction with various strategic partners, took the initiative to develop the MFT ecosystem through the creation of the Sustainable Muslim Attractive Tourism – Muslim Friendly Tourism Hub (SMART-MFT Hub) framework model. This ecosystem was then piloted in Sungai Batang, Agam Regency, West Sumatra. Furthermore, to ensure a more planned, systematic, and measurable approach to MFT development, the Indonesia Muslim Friendly Tourism Index (IMTI) 2023 was created. This index provides an overview of provinces that have successfully positioned themselves as major destinations for Muslim tourists.

4.3 MSME Development Continuously Promoted for Inclusive Growth

Bank Indonesia continued to promote the acceleration of inclusive and green financial-economic development and consumer protection and education. The National Strategy for the Inclusive Economy and Finance serves as the cornerstone of this initiative, with a primary focus on MSME development. This emphasis on MSMEs is well-founded, as they contribute significantly to the national economy, accounting for 61% of GDP and employing 97% of the workforce. Bank Indonesia has strengthened the four pillars of implementing the national strategy for the inclusive economy and finance (Figure 4.3.1), namely economic empowerment, financial access and literacy expansion, financing access improvement, and consumer protection. The economic empowerment pillar focuses on three key areas: (i) increasing the capacity and productivity of MSMEs and communities, especially through the development of food MSMEs; (ii) transforming MSMEs to level up through the development of export and green MSMEs; and (iii) strengthening and expanding the MSME digitalisation program.

The economic empowerment pillar through MSME development supports sustainable economic growth. Economic empowerment is primarily achieved by increasing the capacity and productivity of food MSMEs. Farmer competencies are strengthened through the utilisation of technology, including the implementation of digital farming, the application of environmentally friendly agricultural cultivation, and downstreaming. As of the end of 2023, Bank Indonesia has fostered the development of 262 food MSMEs/clusters consisting of 218 main food clusters (shallots, chili, and rice), and 44 other food clusters (horticultural crops, livestock, and fisheries). These food MSMEs/clusters actively involve 28,459 farmers and over 50,000 workers. The implementation of these best practices has yielded significant results, with over

Figure 4.3.1 MSME Development and Consumer Protection Strategy



Source: Bank Indonesia, processed

30 food cluster MSMEs experiencing productivity increases exceeding 10%. To further drive market expansion, Bank Indonesia has developed a downstream innovation program. This program facilitates partnerships with offtakers, such as processed food industries, modern markets and agricultural e-commerce platforms, through the creation of auction markets that prioritise fair treatment for all participants.

Economic empowerment through MSME development involves expanding access to both domestic and export markets through selected and targeted trade promotion programs. This support is crucial because only 15% of MSMEs have exported commodities with the export value contributing just 4% of total Indonesian exports. In 2023, Bank Indonesia synergised with relevant ministries to expand export market access for MSME products by facilitating 23 international trade promotion events, involving 224 MSMEs. These events adopted both Business to Business (BTB) and Business to Consumer (BTC) formats. The active role of MSMEs at these events generated direct sales totalling USD1.0 million, an increase of 354% compared with the previous year at USD221.8 thousand. Trade promotion is also directed at sustainable programs or activities, one of which is through the establishment of a trading house[31]. The Indonesia House of Beans (IHOB) in Tokyo, Singapore and Malaysia, is an example of a trading house for MSME coffee products fostered by Bank Indonesia, which was created by Bank Indonesia in collaboration with Indonesian embassies and local entrepreneurs in each of the countries. To support MSMEs enter the global market, various initiatives were implemented in 2023, including Karya Kreatif Indonesia (KKI), providing export guidelines (modules), honing e-catalogues, and developing the export hub platform https://www.indonesiasmehub.com. This platform provides various export information and facilitates the implementation of business matching and business meetings with potential buyers.

31 Trading House serves as intermediaries and aggregators-consolidators of marketing for MSMEs in international trade transactions

Transforming and strengthening the digital ecosystem are crucial for enhancing national competitiveness, which includes improving MSME business performance and access to finance. Hitherto, 25.2 million MSMEs have embraced the digital ecosystem and utilise e-commerce, with efforts underway to reach the target of 30 million MSMEs onboarded by 2024. Bank Indonesia actively promotes MSME digitalisation through various initiatives, including education and onboarding facilitation programs by all 46 Bank Indonesia Representative Offices in line with the Proud of Indonesian Products Movement (GBBI) and Proud to Travel in Indonesia #diIndonesiaAja (BBWI) movement. The program caters to both new and existing digital SMEs, empowering competitiveness and sustainability. The program is carried out in four stages, namely preparation, education, mentoring and monitoring, which had successfully onboarded a cumulative total of 1,612 MSMEs by the fourth quarter of 2023.

MSME development also contributes to sustainable economic growth by promoting the development of green MSMEs. Implementing green practices empowers MSMEs to expand market access and secure financing, ultimately increasing the contribution to sustainable economic growth. Based on the green MSME development business model developed by Bank Indonesia, green practices are categorised into three stages: eco-adopter, eco-entrepreneur and eco-innovator, with indicators for production, marketing, human resources and finance. Based on a self-assessment of 538 MSMEs under the mentorship of Bank Indonesia, there are 162 MSMEs categorised as green MSMEs (52 MSMEs in the agricultural sector and 110 MSMEs in the handicrafts sector), most of which are at the eco-adopter stage.

Bank Indonesia continues promoting the pillar for expanding access to finance and financial literacy as a gateway for MSMEs and subsistence groups to the inclusive economy and finance. Programs to increase access to finance and financial literacy are integrated with economic empowerment initiatives, especially for MSMEs and subsistence groups. These programs are implemented through a combination of supply-side approaches by continuing to accelerate development of the digital economy and finance (EKD) ecosystem, along with demand-side approaches through financial literacy and consumer empowerment programs. In addition, as an integral part of implementing the National Economic and Financial Inclusion Strategy (SNEKI) framework, Bank Indonesia also carries out various development programs targeting subsistence groups consisting of three main aspects, namely: (i) building business capacity; (ii) strengthening financial literacy and access to finance; and (iii) strengthening institutions. Encouraging awareness, understanding and the adoption of Digital Financial Services (DFS), a range of DFS educational materials and lesson plans (teaching materials) have been created, which were designed to increase DFS adoption by non-users or passive users, while the lesson plans aims to nurture DFS use among productive businesses, especially MSMEs.

Encouraging the development of potential micro-enterprises, a development program targeting subsistence groups has been implemented by integrating financial inclusion with economic empowerment. The business model for inclusive economic and financial development targets subsistence groups, including social aid program recipients, and business start-ups. Currently, there are 91 subsistence groups that have been fostered through Bank Indonesia Representative Offices spanning the Indonesian archipelago. The initiatives aim to increase knowledge and skills in terms of entrepreneurship, financial management, and the use of financial products and services, while strengthening cooperation, ultimately striving to empower micro-subsistence businesses to generate income, achieve greater independence and resilience, and potentially evolve into formal MSMEs.

Regarding the pillar for increasing access to finance, Bank Indonesia is committed to fostering healthy MSME access in accordance with needs and capacity. Programs to increase access to MSME financing are carried out, among others, by strengthening the integrated AKUBISA (MSME Access to Finance through Business Matching and Literacy for Greater Competitiveness) program, to increase. The AKUBISA MSME facilitation program is implemented through an end-to-end process that includes increasing literacy in digital bookkeeping using the Financial Information Recording Application Information System (SIAPIK)[32], providing a database on financially viable MSMEs (BISAID)[33] and implementing business matching for financing. Various programs intend to support MSMEs to become more bankable, thus expanding MSME access to finance. The Macroprudential Inclusive Financing Ratio (RPIM) policy instituted by Bank Indonesia also promotes MSME access to

32 SIAPIK is a financial information recording application that helps and supports MSMEs in bookkeeping and recording financial transactions.

33 BISAID as a database centre for information on potential financially viable MSMEs , which provides comprehensive and accurate data and information on MSMEs.

finance. The RPIM fulfilment rate in the banking industry increased from 32.74% in 2022 to 33.55% in 2023, and is projected to climb further in 2024. This projected growth is consistent with the prospect of improving MSME loans in 2024, supported by sustained economic growth, KUR loan disbursements, and forecasted MSME turnover moving forward.

Bank Indonesia continued strengthening collaboration with government ministries/agencies and financial institutions to facilitate MSME access to finance through business matching events. In 2023, such events brought together potential MSMEs financed by financial institutions and involved MSME aggregators. Business matching also accommodates various financing business models through Multichannel Financing (MCF), which involves the MSME business value chain with partners, in which MSME are suppliers, distributors, or end users. MCF financing encompasses core plasma financing schemes, warehouse receipts, and KUR clusters. The collaborative efforts undertaken in 2023 succeeded in connecting 340 MSMEs with 24 bank and non-bank financial institutions and secured financing to the tune of Rp56.8 billion.

In 2023, Bank Indonesia presented the BI Award for "Best Food Security Supporting Bank" to banks demonstrating outstanding support for inclusive financing. Appreciation was given to banks that support and distribute financing to MSMEs optimally in the strategic food sector in line with support for national priority programs, namely the National Movement for Food Inflation Control (GNPIP)[34]. The BI Award considers the RPIM ratio achieved by a bank against the bank's target, along with credit risk, and the bank's contribution in disbursing MSME loans to the strategic food sector. The BI Award for Inclusive Financing Supporting Banks in 2023 was awarded to three banks in the KBMI 3 and 4 categories, namely PT Bank Rakyat Indonesia (Persero), PT Bank Mandiri (Persero) and PT Bank Negara Indonesia (Persero). Meanwhile, recognition was also given to 3 (three) banks in KBMI 1 and 2 groups, namely to PT BPD Jawa Barat and Banten, PT Bank Mandiri Taspen and PT Bank BTPN Syariah.

34 Synergy between Bank Indonesia and the (central and regional) Government within the Central and Regional Inflation Control Teams (TPIP and TPID) to optimise supply side inflation control measures and boost production to support food security in an integrated, massive and nationwide manner.

4.4 Consumer Protection and Empowerment

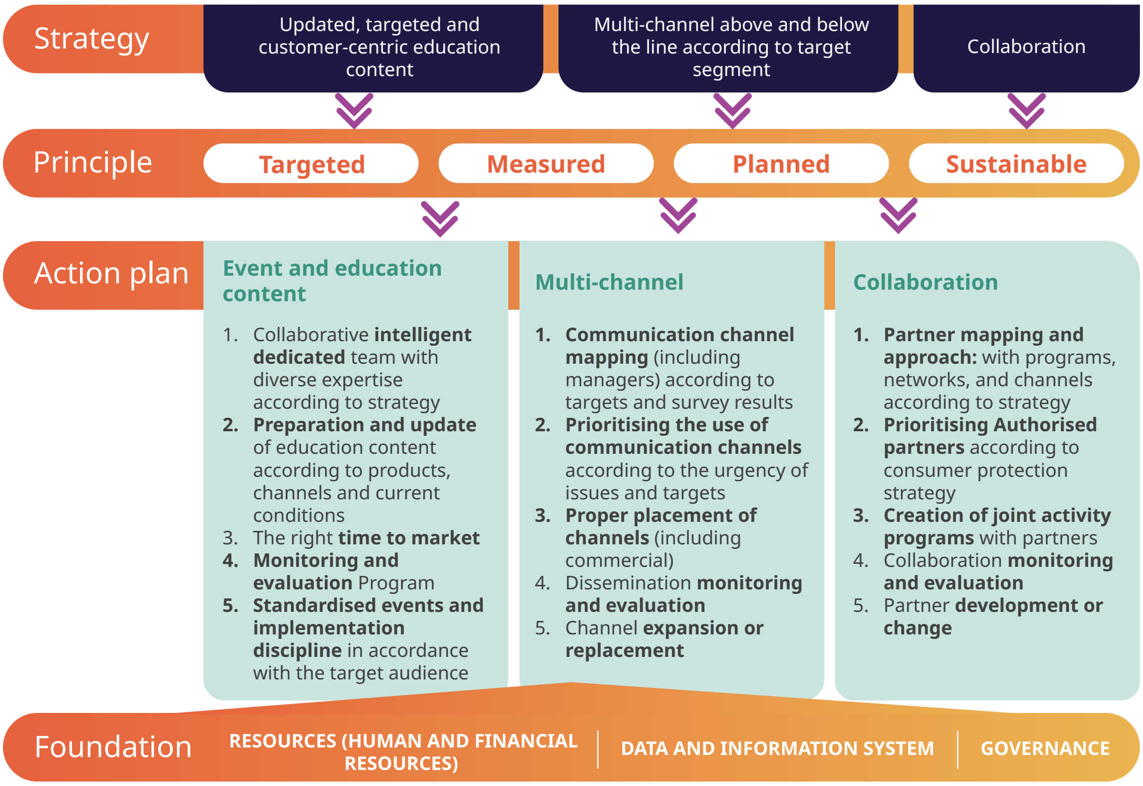
Consumer protection was strengthened to support the acceleration of inclusive and green economic and financial growth. Consumer protection policies were implemented based on the MATRIC principles, namely Massive, Technology-based, Responsive, and Consumer Centric, to address the challenges and problems faced by consumers in the era of rapid and complex digital financial innovation. To that end, Bank Indonesia strengthened consumer protection programs across four strategic aspects as follows: (i) Bank Indonesia issued consumer protection regulations in response to the P2SK Act; (ii) market conduct supervision was strengthened by leveraging technology in the development of consumer protection information systems; (iii) increasing education and literacy, including the flagship National Consumer Protection Survey in 2023, to measure the effectiveness of consumer protection implementation and gather feedback for strengthening Bank Indonesia's consumer protection strategies; and (iv) optimising the channels and platforms for resolving consumer complaints and disputes, which includes strengthening the role of Alternative Dispute Resolution Institutions - Financial Sector (LAPS SJK) and developing a fraud detection system (FDS) in collaboration with relevant stakeholders.

The Consumer Protection Education Strategy Framework drove the expansion of public education and literacy programs. Adequate education was a fundamental principle of consumer protection in the financial sector as outlined in the P2SK Act. The Consumer Protection Education Strategy Framework was implemented through three strategies: (i) updated, targeted and customer-centric education content; (ii) a multi-channel, above and below the line approach aligned with target segments; and (iii) collaboration. Bank Indonesia's consumer protection and education strategy was designed to ensure successful implementation by leveraging digital technology, implementing end-to-end education, collaborating with stakeholders, and executing a comprehensive education strategy (Figure 4.4.1). Bank Indonesia implemented the framework through joint programs with government ministries/agencies, consumer protection education at national events and Bank Indonesia's flagship programs, and the National Campaign – PeKA (Care, Recognise and Report). The Consumer Protection Education Strategy was also implemented across all Bank Indonesia domestic representative offices under the theme "Guardian Nusantara" or "Nusantara Consumer Protection and Education Movement."

In 2023, consumers demonstrated greater understanding of their rights and the ability to identify risks to avoid. According to Bank Indonesia's National Consumer Protection Survey (SNPKBI) conducted using a sample of 13,666 respondents across 34 provinces, the Consumer Empowerment Index (IKK) has reached 64.67 (critical)[35]. This indicates that consumers are now capable and confident in asserting their rights when faced with unfulfilled obligations or excessive

35 The Consumer Empowerment Index (IKK) consists of five levels, ranging from the lowest 'aware' (<20%), 'informed' (20%-40%), 'capable' (40%-60%), 'critical' (60%-80%) to highest 'empowered' (80%-100%).

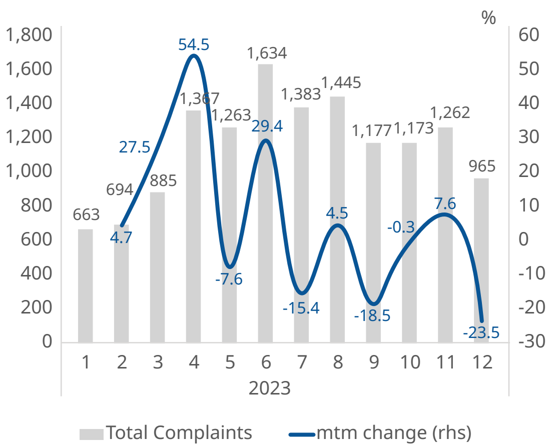
Figure 4.4.1 Bank Indonesia Consumer Protection and Education Strategy Framework



Source: Bank Indonesia, processed

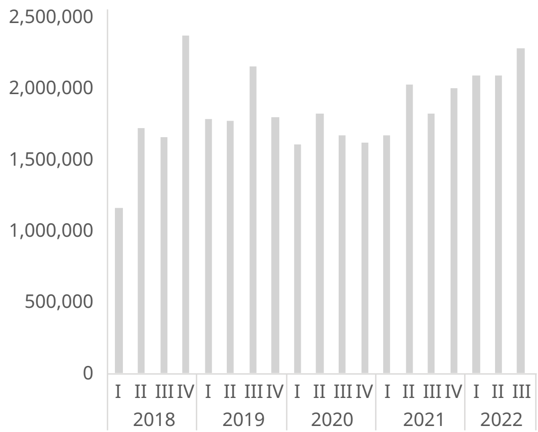
burdens, and in recognising and avoiding risks. Bank Indonesia's records for 2023 show that 13,911 complaints were filed by consumers directly, with the most common issues relating to electronic wallets (25.51%), fund transfers (20.99%), and credit card collection ethics (13.87%). Of the total complaints received, 99.38% were resolved within one business day. Meanwhile, in the third quarter of 2023, Payment System Providers (PJP), KUPVAs, and remittance institutions received 2.29 million complaints directly, representing a 25.5% increase. Consumer complaints predominantly related to the services provided by banks (69.40%), non-banks (30.59%) and rural banks (0.01%).

Graph 4.4.1 Total Consumer Complaints to Bank Indonesia



Source: Bank Indonesia, processed

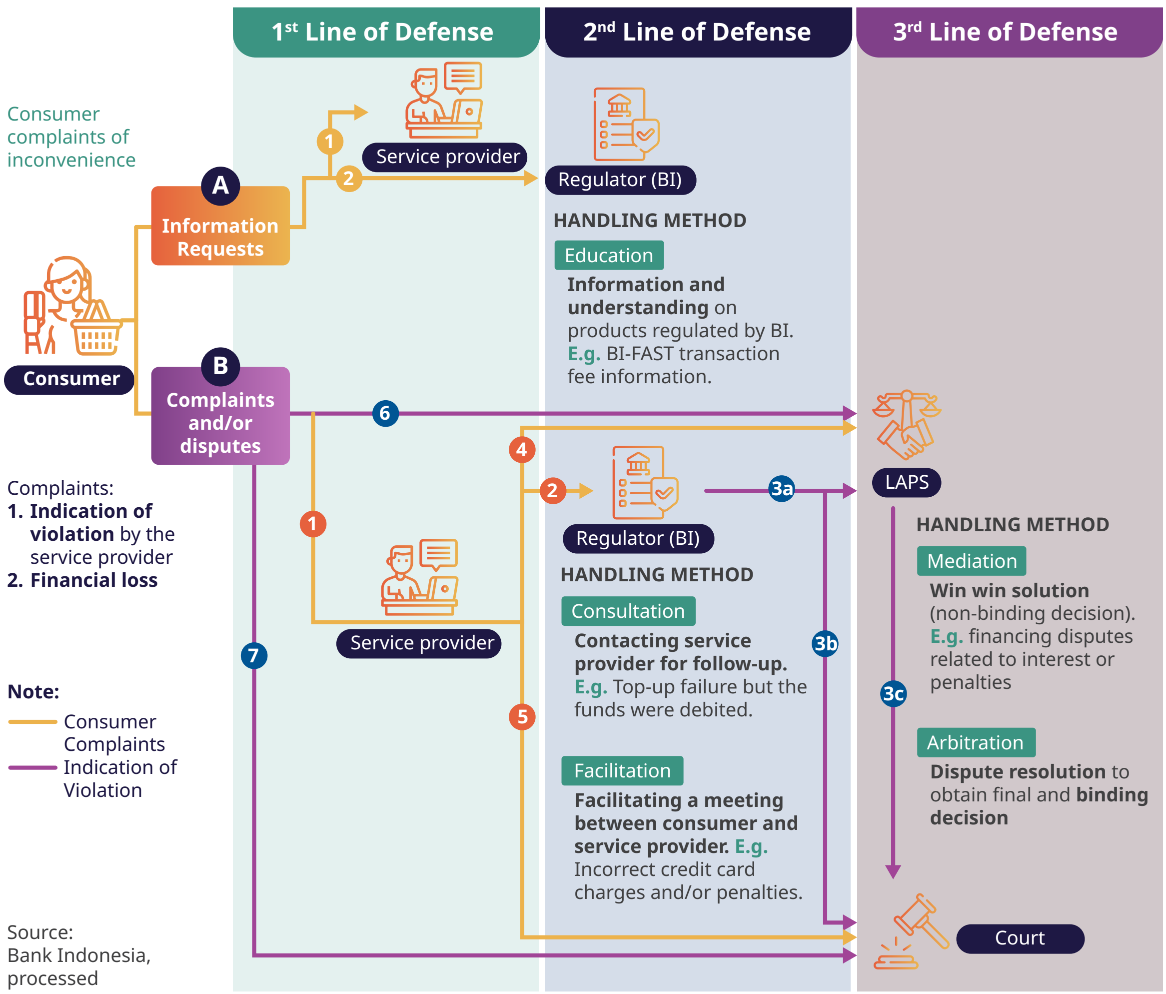
Graph 4.4.2 Total Consumer Complaints to Service Providers



Source: Bank Indonesia, processed

Bank Indonesia addresses public complaints in accordance with the mechanisms set out in the Bank Indonesia Regulation (PBI) on Consumer Protection. Follow-up actions to public complaints by Bank Indonesia include providing education, consultation by contacting the service provider, and facilitating meetings between the consumer and the service provider. If facilitation by Bank Indonesia does not resolve the consumer's complaint, the consumer may pursue the matter in court or through an Alternative Dispute Resolution Institution (LAPS), as mediation to reach an agreement or arbitration to resolve the dispute (Figure 4.4.2).

Figure 4.4.2 Consumer Complaint Handling Procedures



Source: Bank Indonesia, processed

Box 4.1 Support for GBBI/BBWI in Onboarding MSMEs and Increasing Consumption of Domestic Products

Enhancing national economic resilience and independence focuses on the ability to manage domestic resources sustainably. On 14th May 2020, President Joko Widodo launched the National Movement promoting pride in Indonesian-made products (BBI) to boost demand for and purchase of Domestic Products (PDN). In 2022, the BBI movement was expanded with the addition of the Proud to Travel in Indonesia (BBWI) Movement to increase travel among domestic tourists.

Since 2021, Bank Indonesia has consistently played an active role in implementing the national BBI and BBWI movements, supported by Bank Indonesia's Domestic Representative Offices (KPwDN) throughout Indonesia. In accordance with Presidential Decree No. 15 of 2021 concerning the Proud of Indonesian Products National Movement, the Governor of Bank Indonesia was appointed as Deputy Chair of the Gernas BBI Team. In 2023, Gernas BBI and BBWI focused on achieving four Key Performance Indicators (KPIs): (i) increasing the number of onboarded MSMEs to 30 million by 2024; (ii) increasing MSME sales within the digital ecosystem; (iii) achieving 95% target of Regional Government (Pemda) spending on Domestic Products (PDN) through affirmative action; and (iv) supporting the Proud to Travel in Indonesia campaign with a target of 1.2-1.4 billion trips. Bank Indonesia actively participated in Gernas BBI/BBWI 2023 through various activities, including KKI, ISEF, FESyar, GNPIP, and Strategic Flagship Events at all domestic representative offices. The flagship events included curation, capacity building, product exhibitions, business matching for financing as well as market expansion. Additionally, Bank Indonesia conducted domestic product campaigns and promoted Indonesian tourism at various ASEAN events, which included showcasing MSME products to unlock export markets.

Bank Indonesia's active role in Gernas BBI/BBWI 2023 was also targeted to drive MSME digitalisation through onboarding. The onboarding program successfully trained 3,339 MSMEs and encouraged spending of domestic products, generating Rp524.44 billion in domestic sales business matching achievements. This was made possible by BI collaboration with the Ministry of Agriculture as Co-Campaign Managers to support the Central Kalimantan Provincial Government directly when implementing Gernas BBI/BBWI in July 2023. Bank Indonesia also played a role in reactivating Gernas BBI/BBWI in nine regions through MSME capacity building, QRIS expansion and expanding access to finance.

The implementation of Gernas BBI/BBWI in 2024 will be expanded and strengthened further. Activities will span 21 provinces, focusing on four KPIs that continue to build and strengthen the KPIs in 2023: (i) increasing the cumulative number of onboarded MSMEs to 30 million by 2024; (ii) achieving a 95% target for the purchase of Domestic Products (PDN) by government ministries/agencies and regional governments, utilising both state (APBN) and regional (APBD) budgets; (iii) increasing MSME sales with a target of at least Rp50 billion per region; and (iv) mobilising 1.25-1.5 billion domestic tourist trips and 14.3 million international tourists trips.

Box 4.2 Financial Performance of MSMEs based on the MSME Financial Report Survey (SLKU) 2023

According to the MSME Financial Report Survey (SLKU) in 2023, MSMEs experienced asset growth, improved solvency and increased profitability. Total assets increased by 4% during 2023, with current assets increasing by 8% and non-current assets by 1%. MSME solvency ratios, namely the Debt Equity Ratio (DER) and Debt to Asset Ratio (DAR), remained comparatively low at 3% and 2.76%, respectively, demonstrating minimal change from 2022. Furthermore, the Interest Coverage Ratio (ICR) improved from 103.7 in 2022 to 111.42. The three ratios indicate improving repayment capacity due to increased profitability at MSMEs, supported by production cost efficiency and lower interest expenses.

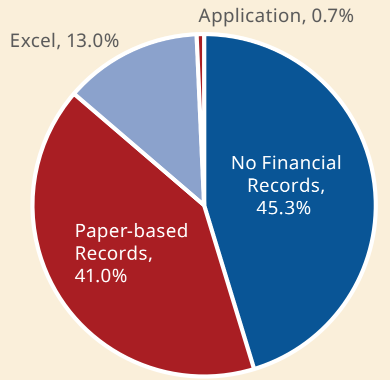
MSMEs require further education and assistance to enhance their understanding of financial reporting and bookkeeping. The survey showed that 45.3% of respondents do not maintain financial records. The primary reasons cited by respondents include the belief that recordkeeping is currently unnecessary given the business scale of the enterprise, the comingling of personal and business funds, and a lack of knowledge on how to prepare financial statements. Proper financial recordkeeping is critical for MSMEs to access funding from formal institutions. The survey underscores this point, as only 19.8% of respondents have access to external funding, while the majority rely on self-financing. The most popular source of

Table B4.2.1 MSME Financial Ratio

Financial Ratio	Indicator	2021	2022	2023
Liquidity	Current Ratio	5.85	7.08	6.95
	Cash Ratio	3.06	4.90	4.30
Solvency	DER (%)	4.40	3.96	3.03
	DAR (%)	3.96	3.55	2.76
	Debt/EBITDA (%)	35.35	13.31	8.65
	ICR	27.40	103.68	111.42
Profitability	GPM (%)	43.09	46.14	52.61
	NPM (%)	8.72	24.65	26.67
	RoA (%)	8.70	24.24	27.75
	RoE (%)	9.57	27.07	30.54

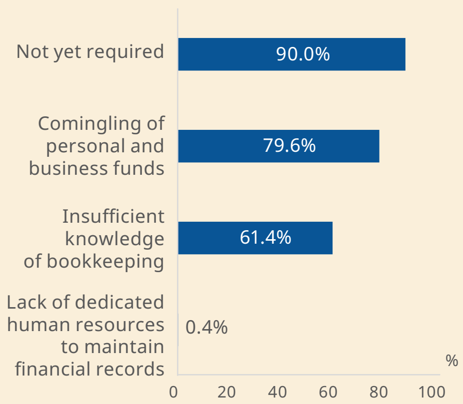
Source: Bank Indonesia, processed

Graph B4.2.1 Financial Record Management



Source: Bank Indonesia, SLKU 2023

Graph B4.2.2 Reasons for Lack of Financial Records

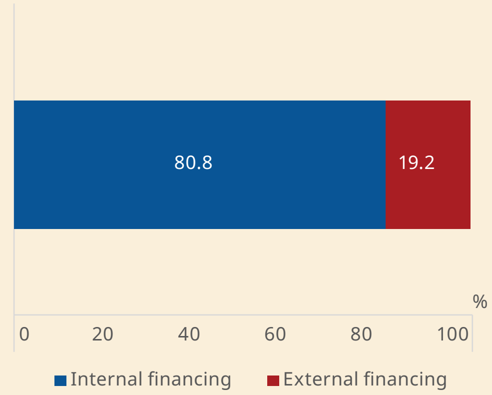


Source: Bank Indonesia, SLKU 2023

external funding (72%) is the People's Business Loans (KUR), with loan amounts ranging from Rp20 million to Rp500 million.

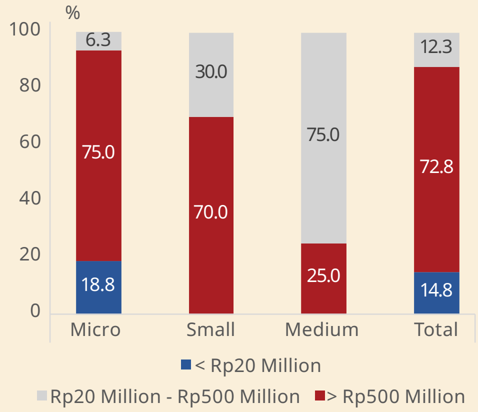
A significant portion of MSME respondents (76.8%) reported having no investment plans for the upcoming year. Among MSMEs with investment plans, most will invest in land (33%), buildings (30%) and equipment (18%). Notably, investments in financial instruments or other assets were limited among MSMEs.

Graph B4.2.3 MSME Initial Financing Sources



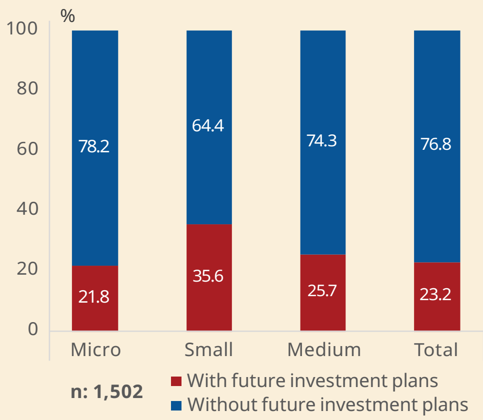
Source Bank Indonesia, SLKU 2023

Graph B4.2.4 Bank Loans



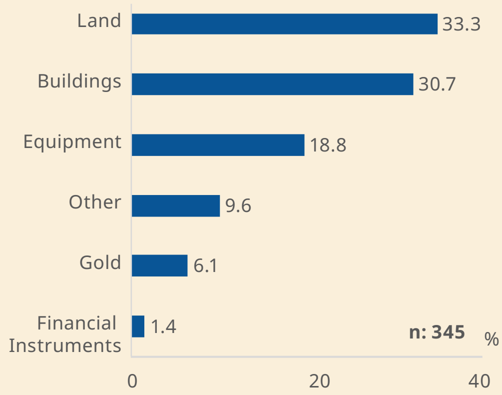
Source: Bank Indonesia, SLKU 2023

Graph B4.2.5 Investment Plans



Source: Bank Indonesia, SLKU 2023

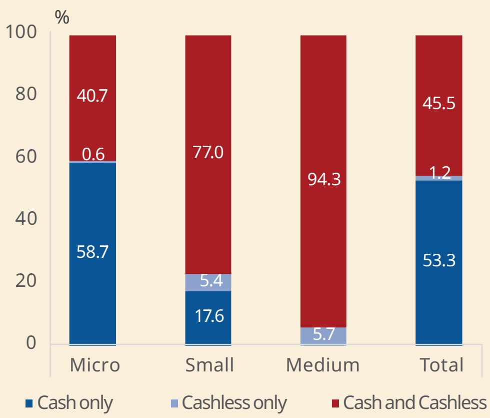
Graph B4.2.6 Types of Investment



Source : Bank Indonesia, SLKU 2023

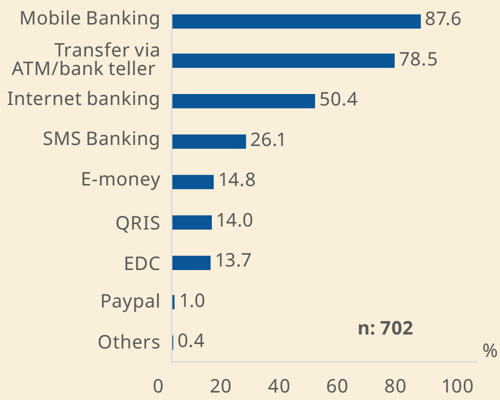
Non-cash transactions remained a viable alternative payment model. As a percentage, 53.3% of respondents relied solely on cash as a payment method. However, a significant portion (45.6%) utilised a hybrid approach, combining cash with non-cash methods and a small fraction (1.2%) were completely cashless.

Graph B4.2.7 Payment Methods



Source: Bank Indonesia, SLKU 2023

Graph B4.2.8 Types of Cashless Payment



Source: Bank Indonesia, SLKU 2023

The most common non-cash payment methods included mobile banking (88%), bank transfers (78%), internet banking (50%), SMS banking (26%) and electronic money (15%).

In general, the results of the SLKU Survey in 2023 indicated that the majority of MSMEs achieved better business performance than in the previous year. This is consistent with improving financial performance, particularly asset growth, solvency and profitability. Moving forward, Bank Indonesia will be more proactive in educating MSMEs that still lack financial bookkeeping through a program to improve financial recordkeeping literacy using the Financial Information Recording Application Information System (SIAPIK). This program is expected to help overcome the most salient challenges faced by MSME in securing financing from formal financial institutions.

BANK INDONESIA

Chapter 5

POLICY RESPONSE TO PROMOTE INTERMEDIATION

The Bank Indonesia policy mix was strengthened continuously to maintain stability and promote sustainable economic growth. Monetary policy remained consistently directed at maintaining stability (pro-stability), whereas macroprudential and payment system policies remained pro-growth to nurture sustainable economic growth. In addition, Bank Indonesia continued strengthening its policies to maintain consistency with the P2SK Act. Accommodative macroprudential policy was maintained to revive bank lending/financing to the corporate and household sectors. Macroprudential Liquidity Incentive (MLI) policy was implemented to foster bank lending/financing to sectors with higher economic leverage. Furthermore, an accommodative Countercyclical Capital Buffer (CCyB) ratio, Macroprudential Intermediation Ratio (MIR), Loan to Value/Financing to Value (LTF/FTV) ratio, and automotive loans/financing downpayment requirements were also maintained. Seeking to provide banks with greater liquidity management flexibility for loan/financing disbursements, Bank Indonesia lowered the Macroprudential Liquidity Buffer (MPLB) ratio. Moreover, Prime Lending Rate (PLR) transparency policy was also explored in more depth.

Maintaining macroeconomic and financial system stability, while promoting economic and financial inclusion, Bank Indonesia continued strengthening synergy and coordination with the Government, relevant authorities and other strategic partners. Policy synergy and coordination with the (central and regional) Government and other strategic partners were built through, among others, the National Movement for Food Inflation Control (GNPIP) in various areas within the Central and Regional Inflation Control Teams (TPIP and TPID), the Proud of Indonesian Products (*Bangga Buatan Indonesia*, "BBI") and Proud to Travel in Indonesia (*Bangga Berwisata in Indonesia*, "BBWI") national movements, and the expansion of QRIS implementation and strengthening Indonesian Credit Card implementation for the government segment. The coordination of national policies through the Financial System Stability Committee (KSSK) was also strengthened further to mitigate various risks that could potentially disrupt financial stability, while also reviving lending/financing to businesses. Synergy and coordination with the Indonesian Financial Services Authority (OJK) and Indonesia Deposit Insurance Corporation (LPS) were also carried out continuously to maintain financial system stability.

In accordance with the mandate of the P2SK Act, Bank Indonesia continued to maintain and strengthen various policy areas, particularly those relating to macroprudential policy. In connection with P2SK Act implementation, Bank Indonesia in 2023 issued several regulations, namely MLI policy, Short-Term Liquidity Assistance (PLJP)/Sharia-Compliant Short-Term Liquidity Assistance (PLJPS), consumer protection, money market and foreign exchange market deepening, as well as policies and instruments to increase money market transactions. Bank Indonesia will continue strengthening regulations with due consideration to the deadline for the formulation of implementation regulations in accordance with the P2SK Act, namely no later than two years after the P2SK Act was enacted.

5.1 Accommodative Macroprudential Policy to Foster Intermediation

Bank Indonesia continued orienting its macroprudential policy mix towards increasing bank lending/financing to support sustainable economic growth. Macroprudential policy was implemented based on a consistently accommodative policy stance through the implementation of MLI, continuation of LTV/FTV relaxation for property loans/financing and downpayment requirements on automotive loans/financing, maintaining an accommodative MIR level, and CCyB ratio at 0%. Bank Indonesia also lowered the MPLB ratio to provide banks greater flexibility in terms of liquidity management when disbursing loans/financing. In addition, Bank Indonesia continued implementation of Macroprudential Inclusive Financing Ratio (RPIM) policy to promote an inclusive economy and finance, and continued the Prime Lending Rate (PLR) transparency policy.

The implementation of accommodative macroprudential policy to encourage sustainable economic growth was strengthened, among others, by bolstering the application of MLI policy. MLI is a set of incentives introduced by Bank Indonesia in the form of a reduction in the average percentage of the Statutory Reserve Requirement that must be met. This policy has been reformulated several times since its introduction in 2022. The latest MLI reformulation[36], implemented since 1st October 2023, aims to foster bank lending/financing to certain sectors, including sectors related to downstreaming (among others, minerals and coal, agriculture, animal husbandry, plantations, and fisheries), housing, tourism, inclusion (MSMEs, People's Business Loans (KUR), and Ultra Micro), as well as green loans/financing. Total MLI was set at a maximum of 4%, with realisation as of December 2023 recorded at Rp163 trillion, up from Rp137 trillion upon initial implementation in October 2023 and much higher than the previous incentive setting in September 2023 at Rp108 trillion (Box 5.1).

Bank Indonesia continued the relaxation of LTV/FTV ratio for property loans/financing and minimum downpayment requirements on automotive loans/financing. This policy was continued to sustain public interest and purchasing power for property and motor vehicles that provide economic leverage. The LTV/FTV ratio for property loans/financing remained loose at a maximum of 100% for all property types to banks that meet the NPL/NPF requirements. The downpayment requirements on automotive loans/financing also remained loose at a minimum of 0% for all types of motor vehicle to banks meeting the NPL/NPF requirements. The relaxation of LTV/FTV and downpayment regulations was introduced in 2021 and will be extended until 31st December 2024[37].

36 Bank Indonesia Regulation (PBI) Number 11 of 2023 concerning "Macroprudential Liquidity Incentive Policy".

37 Board of Governors Regulation (PADG) Number 19 of 2023, as the fifth amendment to Board of Governors Regulation Number 21/25/PADG/2019 concerning Loan to Value Ratio for Property Loans, Financing to Value Ratio for Property Financing, and Downpayment Requirements for Automotive Loans or Financing".

Figure 5.1.1 LTV/FTV Ratio for Property Loans/Financing and Downpayment Requirements for Automotive Loan/Financing

LTV/FTV Ratio for Property Loans/Financing

	Banks Meeting NPL/NPF Criteria				Banks Not Meeting NPL/NPF Criteria					
	Property Loans /Financing based on Murabahah & Istishna Contracts		Property Loans/ Financing based on MMQ & IMBT Contracts		Property Loans /Financing based on Murabahah & Istishna Contracts			Property Loans/ Financing based on MMQ & IMBT Contracts		
Facilities	1	≥2	1	≥2	1	≥2	≥3	1	≥2	≥3
Landed House										
Type >70	100%	100%	100%	100%	95%	90%	90%	95%	90%	90%
Type >21 - 70	100%	100%	100%	100%	95%	95%	95%	95%	95%	95%
Type ≤21	100%	100%	100%	100%	100%	95%	95%	100%	95%	95%
Flats										
Type >70	100%	100%	100%	100%	95%	90%	90%	95%	90%	90%
Type >21 - 70	100%	100%	100%	100%	95%	95%	95%	95%	95%	95%
Type ≤21	100%	100%	100%	100%	100%	95%	95%	100%	95%	95%
Shop/Office House	100%	100%	100%	100%	95%	90%	90%	95%	90%	90%

*) NPL/NPF Criteria:

1. Gross NPL/NPF ratio < 5% (five percent); and
2. Gross non-performing property loans/financing < 5% (five percent).

LTV/FTV Ratio for Green Loans/Financing

	Banks Meeting NPL/NPF Criteria				Banks Not Meeting NPL/NPF Criteria					
	Property Loans /Financing based on Murabahah & Istishna Contracts		Property Loans/ Financing based on MMQ & IMBT Contracts		Property Loans /Financing based on Murabahah & Istishna Contracts			Property Loans/ Financing based on MMQ & IMBT Contracts		
Facilities	1	≥2	1	≥2	1	≥2	≥3	1	≥2	≥3
Landed House										
Type >70	100%	100%	100%	100%	95%	90%	90%	95%	90%	90%
Type >21 - 70	100%	100%	100%	100%	95%	95%	95%	95%	95%	95%
Type ≤21	100%	100%	100%	100%	100%	95%	95%	100%	95%	95%
Flats										
Type >70	100%	100%	100%	100%	95%	90%	90%	95%	90%	90%
Type >21 - 70	100%	100%	100%	100%	95%	95%	95%	95%	95%	95%
Type ≤21	100%	100%	100%	100%	100%	95%	95%	100%	95%	95%
Shop/Office House	100%	100%	100%	100%	95%	90%	90%	95%	90%	90%

*) NPL/NPF Criteria:

1. Gross NPL/NPF ratio < 5% (five percent); and
2. Gross non-performing property loans/financing < 5% (five percent).

Minimum Downpayment Requirements

Vehicle Type	DP on Non-Green Vehicles		DP on Green Vehicles	
	Meeting NPL Requiremets*	Not Meeting NPL Requiremets*	Meeting NPL Requiremets*	Not Meeting NPL Requiremets*
Two Wheels	0%	10%	0%	10%
Three or More Wheels (Non-Commercial)	0%	10%	0%	10%
Three or More Wheels (Commercial)	0%	5%	0%	5%

*) NPL/NPF Criteria:

1. Gross NPL/NPF ratio < 5% (five percent); and
2. Nett non-performing property loans/financing < 5% (five percent).

Source: Bank Indonesia, processed

Bank Indonesia adjusted the Macroprudential Liquidity Buffer (MPLB) policy to revive lending/financing and deepen the financial markets. Since 1st December 2023, the MPLB ratio for Conventional Commercial Banks has been lowered from the initial 6% to 5%, with repo flexibility of 5%[38]. Meanwhile, the Sharia MPLB ratio for Sharia Commercial Banks has been lowered from the initial 4.5% to 3.5%, with repo flexibility of 3.5%. The reductions to the MPLB/Sharia MPLB ratios intend to provide banks greater flexibility in liquidity management to foster lending/financing and financial market deepening. The lower MPLB/Sharia MPLB ratios are expected to provide more room for banks to disburse loans/financing by utilising funds previously used earmarked for securities investment.

In addition to lowering the ratios, MPLB/Sharia MPLB policy was further adjusted by including Bank Indonesia Rupiah Securities (SRBI) as part of the securities that are eligible in the fulfilment of MPLB/Sharia MPLB[39]. SRBI is a contractionary monetary operation (MO) instrument to manage liquidity, which is also expected to support money market deepening and rupiah stability because it can be transacted and owned by non-banks, both residents and non-residents, in the secondary market. In general, the securities that are eligible for inclusion in the fulfilment of MPLB/Sharia MPLB policy are Bank Indonesia Certificates (SBI), Bank Indonesia Sharia Certificates (SBIS), Bank Indonesia Certificates of Deposit (SDBI), Bank Indonesia Rupiah Securities (SRBI), Bank Indonesia Sukuk (SukBI), and Government Securities (SBN).

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38 Board of Governors Regulation (PADG) Number 18 of 2023, as the seventh amendment to Board of Governors Regulation Number 21/22/PADG/2019 concerning the Macroprudential Intermediation Ratio and Macroprudential Liquidity Buffer Ratio for Conventional Commercial Banks, Sharia Banks and Sharia Business Units".

39 Board of Governors Regulation (PADG) Number 10 of 2023, as the sixth amendment to Board of Governors Regulation Number 21/22/PADG/2019 concerning the Macroprudential Intermediation Ratio and Macroprudential Liquidity Buffer Ratio for Conventional Commercial Banks, Sharia Banks and Sharia Business Units".

Bank Indonesia maintained an accommodative macroprudential policy posture through the CCyB, MIR and RPIM policy instruments. CCyB was maintained at 0% given stable financial system conditions and with no indication of excessive loan/financing growth that could trigger systemic risk. With a 0% CCyB, banks are not required to raise additional capital, thereby increasing the banking sector's capacity to disburse loans/financing. RIM, which is one of the macroprudential instruments to revive bank intermediation, was maintained in a range of 84-94% to continue promoting loan/financing growth. Bank Indonesia also consistently promoted economic and financial inclusion, both from the demand side by strengthening MSME corporatisation, capacity and access to finance and the supply side through bank obligations to meet the RPIM ratio. In addition, Bank Indonesia also provided MLI to banks for achieving the RPIM ratio and for disbursing ultra micro loans.

Maintaining interest rate transparency in the banking industry, Bank Indonesia regularly publishes its PLR assessment as an appendix to the Monthly Board of Governors Meeting press release. PLR policy promotes transparency in credit pricing information, thus improving governance, market discipline, and competition in the bank loan market. In 2023, Bank Indonesia continued strengthening PLR transparency policy with a focus on deepening, among others, interest rates for loans in the service sectors (trade, corporate services, transportation, and social services), MSME loans, and loans for the housing and tourism sectors.

5.2 Synergy Among Financial Sector Authorities

Bank Indonesia continued strengthening cross-authority coordination in the financial sector through the Financial System Stability Committee (KSSK). Bank Indonesia synergy with other KSSK members, namely the Ministry of Finance (MoF), the Indonesia Financial Services Authority (OJK), and the Indonesia Deposit Insurance Corporation (LPS), continued to be strengthened in order to maintain macroeconomic and financial sector stability, including efforts to increase lending/financing to the corporate sector towards sustainable economic growth. Based on joint monitoring by KSSK members, the stability of the financial system in the second semester of 2023 was maintained despite increasing global uncertainty. This was supported by resilient domestic economic and financial system conditions, as well as improved coordination and synergy within KSSK. As a follow-up action to P2SK Act implementation, policy coordination among KSSK members was also strengthened continuously, including discussions on inter-agency cross-cutting issues and the preparation of implementation regulations pertaining to the P2SK Act.

At the KSSK Periodic Meeting in the Second Semester of 2023, all KSSK members committed to building synergy in supporting sustainable economic growth through their respective policy mixes. The Government will continue optimising the role of fiscal policy in promoting increased productivity and sustainable economic growth and optimising the role of the State Revenue and Expenditure Budget (APBN) as a shock absorber to safeguard public welfare. From Bank Indonesia's perspective, a consistent monetary policy stance was maintained to ensure that inflation remained under control and within the target range on the back of strengthening macroprudential policy stimuli to revive lending/financing and strengthening payment system policy by honing the payment system digitalisation strategy. Meanwhile, OJK continued efforts to strengthen the financial services industry and market infrastructure, including through improvements to governance for commercial banks with the support of integrated compliance and risk management, and coordination with banks, law enforcement, and other government ministries/agencies. On the other hand, LPS strengthened its policies relating to guarantees and resolutions to support economic recovery and build public confidence in banking, which includes maintaining financial system stability. These efforts include monitoring the adequacy of deposit insurance in accordance with the LPS Act, ensuring the effectiveness of the early involvement mechanism in resolving troubled bank, and coordinating with other KSSK members when implementing resolutions.

Bilaterally, coordination between Bank Indonesia and OJK continued to be strengthened through the Macroprudential-Microprudential Coordination Forum (MMCF). In 2023, various strategic policies were coordinated through MMCF. Bank Indonesia policies discussed at this forum include the Foreign Exchange Proceeds from Exports of Natural Resources (DHE SDA) and MLI. In addition, financial instruments were issued to deepen the financial markets, including Bank Indonesia Rupiah Securities (SRBI), Bank Indonesia Foreign Currency Securities (SVBI), and Bank Indonesia Foreign Currency Sukuk (SUVBI), which were also the focus of these bilateral discussions. Meanwhile, from the OJK side, several Drafts of OJK Regulations (RPOJK) and Drafts of OJK Circular Letters (RSEOJK) were harmonised with Bank Indonesia regulations through MMCF. Furthermore, both authorities intensively exchange data and information and conduct joint research, including joint stress tests, to strengthen macroprudential and microprudential policy analysis.

Bilateral cooperation between Bank Indonesia and LPS was implemented consistently to support financial system stability. Bank Indonesia continued providing support to LPS, including knowledge sharing relating to budget management and governance. Bank Indonesia also conducted benchmarking of the cyber resilience and security practices implemented by LPS. In addition, intensive collaboration in the exchange of data and information between both authorities continued to be strengthened to support the implementation of tasks and responsibilities at each institution.

Tripartite cooperation between Bank Indonesia, OJK and LPS was strengthened further in the implementation of commercial bank reporting, as well as the harmonisation of policies instituted by the three institutions. Since 2019, the three institutions have implemented integrated bank reporting through the Integrated Commercial Bank Report (LBUT) that is continuously strengthened with the expansion of various metadata. Reporting integration aims to improve the effectiveness and efficiency of banking reports. In addition, tripartite coordination was also carried out through joint assessments, including updating the list of systemic banks, which aims to synergise the policy direction of the three authorities. These synergetic efforts reflect the joint commitment to strengthen the resilience of the national financial system.

In terms of MSME development and payment system digitalisation, the synergy between Bank Indonesia, the Government and the industry was consistently strengthened. Synergy was achieved through the National BBI and BBWI Movements to support sustainable economic growth. In 2023, the National BBI and BBWI Movements were aligned with the strategic programs of Bank Indonesia, such as Karya Kreatif Indonesia (KKI) or Indonesia Creative Works Exhibition. Furthermore, synergy and coordination through the National Movement for Food Inflation Control (GNPIP) also aimed to support MSME development in the strategic food sector in addition to bolstering inflation control. In addition, payment system digitalisation was accelerated and cross-border cooperation expanded to foster financial inclusion as well as the digital economy and finance (EKD). In order to help promote MSMEs, the synergy between Bank Indonesia, the banking industry, payment system associations, financial technology (FinTech) company associations and other associations continued to be strengthened to expand various payment system digitalisation programs, such as QRIS through the development of Transfer, Withdrawal, and Cash Deposit features (QRIS TUNTAS) as well as expansion of cross-border QR cooperation. QR code-based payment linkages between countries was expanded with the inclusion of the Monetary Authority of Singapore, Bank of Thailand, and Bank Negara Malaysia, and will continue to be initiated with other partner countries. Faster, cheaper, more transparent and inclusive cross-border payments, especially for MSMEs, are expected to accelerate MSME growth. In addition, strengthening the implementation and acceptance of the Indonesian Credit Card for the government segment is also expected to unlock opportunities for MSMEs, as government partners, to level up by being connected to the national EKD ecosystem.

5.3 Strengthening Financial Sector Regulations as an Implementation of the P2SK Act

The P2SK Act, which passed in early 2023, has strengthened the legal basis and provided a clearer mandate regarding the tasks and objectives of Bank Indonesia as the central bank. The objectives of Bank Indonesia in accordance with the P2SK Act are to achieve rupiah stability, maintain payment system stability, and contribute to maintain financial system stability in order to support sustainable economic growth. To achieve these objectives, one of Bank Indonesia's core tasks is to determine and implement macroprudential policy. In carrying out this task, Bank Indonesia conducts macroprudential regulation and supervision to encourage a balanced, quality and sustainable intermediation function, mitigate and manage systemic risk, increase economic and financial inclusion, and promote sustainable finance.

The authority of Bank Indonesia to determine and implement macroprudential policy is further regulated in the P2SK Act. In order to determine and implement macroprudential policy, Bank Indonesia has the authority to carry out (i) macroprudential regulation, (ii) macroprudential supervision, including inspections and the imposition of sanctions, (iii) regulation and development of inclusive financing and sustainable finance, (iv) provision of funds to banks in order to carry out the function of lender of the last resort, (v) reverse repo (repurchase agreement) and/or purchase of government securities owned by the LPS when liquidity is required; and (vi) coordination with related authorities.

In line with the mandate of the P2SK Act, Bank Indonesia has continued and strengthened policy transformation consistently. Bank Indonesia is currently reviewing the macroprudential policy framework as part of the Bank Indonesia policy mix to ensure its alignment with the mandate of the P2SK Act. In the area of macroprudential policy, Bank Indonesia strengthened the regulatory framework in 2023 by strengthening the implementation of loose macroprudential policy to promote sustainable economic growth with the issuance and implementation of MLI provisions. The PLJP and PLJPS provisions was also refined within the framework of strengthening the resolution of issues faced by banks experiencing a liquidity mismatch. Bank Indonesia issued several other provisions as a follow-up to the mandate of the P2SK Act, including provisions on consumer protection, the money market and foreign exchange market, and the issuance of instruments and transactions in the money market. In addition, continuing to prepare implementation regulations for the P2SK Act, Bank Indonesia also participated in various discussions on the preparation of Draft Government Regwulations (RPP), including RPP on Financial Derivatives and Crypto Assets, RPP on Resolution of Banking Issues, and RPP on the National Committee to Improve Financial Literacy and Financial Inclusion.

Provisions on MLI policy were issued by Bank Indonesia as the implementation of Bank Indonesia's duties to determine and implement macroprudential policy and implement the P2SK Act, which mandates Bank Indonesia with conducting liquidity management to support economic growth. In this case, liquidity management efforts can be carried out by Bank Indonesia through a mix of monetary and macroprudential policies to support sustainable economic growth. As the implementation of this mandate, Bank Indonesia issued provisions on MLI, which is a set of incentives offered by Bank Indonesia in the form of a reduction in the average Rupiah Statutory Reserve Requirement (GWM) that must be met by banks that disburse loans/financing to certain sectors. MLI implementation is expected to encourage bank lending/financing to these sectors, and ultimately contribute to sustainable economic growth in Indonesia.

Bank Indonesia provides funds to banks experiencing a liquidity mismatch through the Short-Term Liquidity Assistance for Conventional Commercial Banks (PLJP)[40]/Sharia-Compliant Short-Term Liquidity Assistance for Sharia Commercial Banks (PLJPS)[41]. The current provisions on PLJP/PLJPS strengthen the previous provisions, as a follow-up to the mandate of Articles 20 and 30 of the Financial System Crisis Prevention and Mitigation Act (PPKSK Act) as last amended by the P2SK Act.[42] In general, the strengthening of PLJP/PLJPS regulations includes:

1. Strengthening of the requirements for banks to obtain PLJP/PLJPS, namely commercial banks must meet the following requirements: a) solvency; b) adequate collateral to guarantee PLJP/PLJPS; and c) adequate cash flow projections to repay PLJP/PLJPS.

2. Adjustment of regulations on collateral requirements:

   a. addition of fixed assets as collateral,

   b. adjustment to the value of collateral requirements against the credit line for SBN in accordance with the monetary operations (MO) haircut,

   c. adjustment to the restructuring period for loan/financing assets as collateral during the Covid-19 stimulus period, and

   d. addition of pension loans/financing as collateral.

3. Adjustment to the PLJP/PLJPS period, up to a maximum of 30 calendar days for each PLJP/PLJPS disbursement period, which can be extended consecutively for a maximum of 2 (two) periods, bringing the overall maximum to 90 calendar days.

In addition to strengthening the BI lender of last resort function, the aforementioned adjustments to the PLJP/PLJPS regulations also strengthen the overall mitigation scheme to resolve troubled banks, especially in terms of liquidity issues to safeguard the stability of the financial system.

In order to improve the efficiency of PLJP and PLJPS implementation, Bank Indonesia and OJK strengthened the coordination mechanism. Several overlapping tasks and duties between the two authorities have been agreed, including coordination in the application process and assessment of compliance to PLJP/PLJPS requirements, as well as coordination in the event of extending of maturity, additional or replacement collateral requirements, supervision of banks receiving PLJP or PLJPS, as well as the repayment and execution of pledged collateral.

Strengthening the consumer protection function is a core function of Bank Indonesia's authority as mandated by the P2SK Act. The P2SK Act strengthens the jurisdiction of financial sector authorities, including Bank Indonesia, in terms of regulating consumer protection, including the rights and obligations of consumers, as well as the rights, obligations, and limitations for providers, adjustments to consumer protection principles, market conduct supervision, complaint mechanisms, and dispute resolution. BI consumer protection regulations were strengthened through the promulgation of Bank Indonesia Regulation Number 3 of 2023 concerning Bank Indonesia Consumer Protection. This intends to address the challenges for effective consumer protection in the midst of digital financial and economic development. Bank Indonesia also issued technical regulations to support the implementation of consumer protection principles by providers[43]. The main objective of consumer protection regulations is to build awareness among businesses regarding the importance of consumer protection and to increase consumer empowerment. Consumer protection regulations

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40 Bank Indonesia Regulation (PBI) Number 4 of 2023 concerning "Short-Term Liquidity Assistance for Conventional Commercial Banks".

41 Bank Indonesia Regulation (PBI) Number 5 of 2023 concerning "Sharia-Compliant Short-Term Liquidity Assistance for Sharia Commercial Banks".

42 Act Number 9 of 2016 concerning "Financial System Crisis Prevention and Mitigation", as last amended by Act Number 4 of 2023.

43 Board of Governors Regulation (PADG) Number 20 of 2023 concerning "Bank Indonesia Consumer Protection Implementation Procedures".

are expected to reduce the inequality between businesses and consumers, eliminate misleading information, abuse of authority and fraud, as well as promote the development of responsible and efficient financial product and service innovation. Strong consumer protection can increase public confidence as consumers to use financial services, which can ultimately strengthen the stability of the financial system in Indonesia.

The P2SK Act also strengthens Bank Indonesia's powers to regulate, develop and supervise the money market and foreign exchange market. Money market and foreign exchange market regulation, development and supervision aim to create and maintain a modern and advanced money market and foreign exchange market that support monetary policy effectiveness, financial system stability as well as national economic financing synergy towards sustainable economic growth. In the money market and foreign exchange market, P2SK Act implementation involves the issuance of a Bank Indonesia Regulation concerning the Money Market and Foreign Exchange Market[44].

44 Bank Indonesia Regulation (PBI) Number 6 of 2023 concerning "Money Market and Foreign Exchange Market".

synergy towards sustainable economic growth. In the money market and foreign exchange market, P2SK Act implementation involves the issuance of a Bank Indonesia Regulation concerning the Money Market and Foreign Exchange Market[45]. The Bank Indonesia Regulation on the Money Market and Foreign Exchange Market is focused on three aspects, namely policy formulation to anticipate innovation, money market and foreign exchange market deepening, as well as policy synergy. The BI Regulation covers various aspects, including the products, prices, actors, and use of infrastructure. Other regulations include money market data and information, the application of prudential principles and risk management, consumer protection, as well as coordination and supervision. Board of Governors Regulation (PADG) Number 13 of 2023 was also issued as an implementation regulation[46].

45 Bank Indonesia Regulation (PBI) Number 6 of 2023 concerning "Money Market and Foreign Exchange Market".

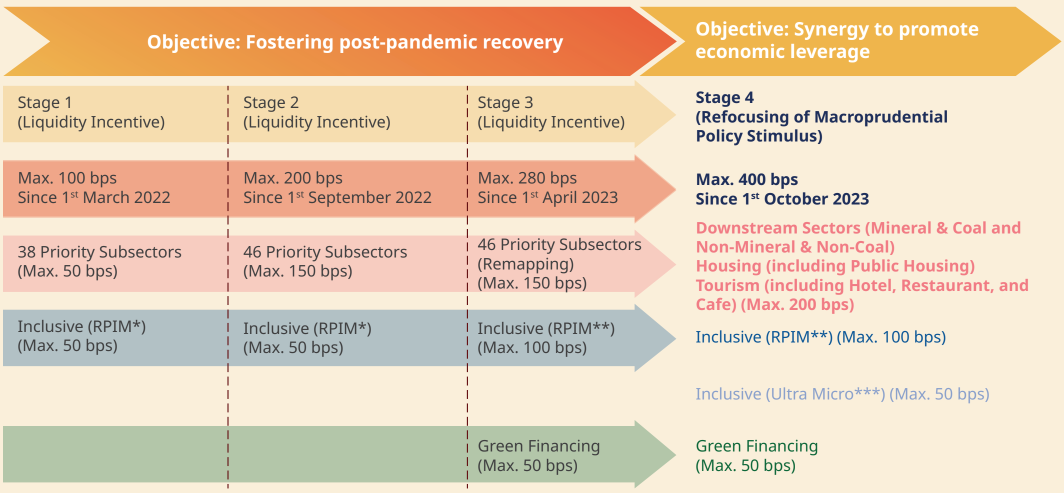
46 Board of Governors Regulation (PADG) Number 13 of 2023 concerning "Strengthening the Quality of Participants and Establishing Self-Regulatory Organizations in the Money Market and Foreign Exchange Market".

Box 5.1 Macroprudential Liquidity Stimuli to Revive Intermediation

The global and domestic economic recovery from the deleterious impact of the Covid-19 pandemic is currently intact. On the global side, although economic growth in 2024 is expected to improve, uncertainty remains high. At home, national economic growth in Indonesia is expected to remain promising but with a growth structure that is not yet solid. Consumption and investment still need to be oriented towards strengthening economic growth. Meanwhile, the financial system tends to remain stable, as reflected in maintained banking resilience amid high intermediation. Bank lending/financing in 2023 remained favourable, thus supporting economic growth. Loan/financing growth in 2023 reached 10.38% (yoy), within the upper range of Bank Indonesia's 9-11% forecast. From the demand side, the increase in lending/financing was consistent with positive corporate and household sector performance. On the supply side, the increase in lending/financing was driven by risk appetite in the banking industry along with ample liquidity.

Given these developments, Bank Indonesia is committed to continuously promoting bank loan/financing disbursements from the supply side to accelerate sustainable economic growth. One of the accommodative macroprudential policy innovations taken by Bank Indonesia includes strengthening liquidity-based macroprudential policy stimuli by honing and increasing of the amount of macroprudential incentives in the form of MLI. The MLI incentives were implemented on 1st October 2023 to support bank liquidity as a refinement of the macroprudential incentives that have been implemented since March 2022 (details of policy changes as shown in Figure B5.1.1). Macroprudential incentives are provided in the form of liquidity stimuli in the form of a reduction in the reserve balances that must be placed in Bank Indonesia in the form of average Rupiah Statutory Reserve Requirements (GWM). From the reduction in GWM, banks are expected to have more liquidity flexibility that can be redistributed in the form of loans/financing. Liquidity incentives

Figure B5.1.1 Stages of Bank Indonesia Macroprudential Liquidity Incentive Policy

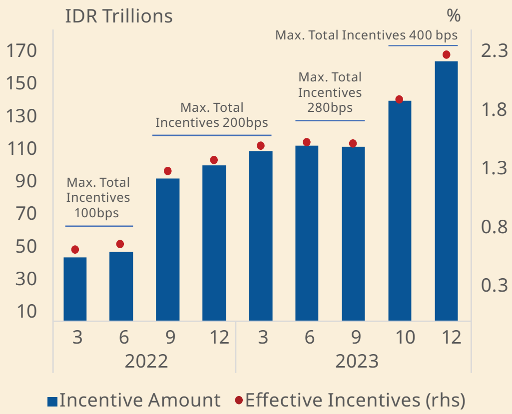


*) Using ratio of MSME Loan to Total Loan
**) Using RPIM ratio in 2022
***) Ultra-micro loan/financing among other through channeling to other Financial Services Institutions
Source: Bank Indonesia, processed

are directed towards the disbursement of bank loans/financing to specific economic sectors, namely priority sectors, inclusive sectors, and other sectors determined by Bank Indonesia.

The overall realisation of macroprudential incentives targeting the banking industry has continued to increase since its initial implementation in 2022 (Graph B5.1.1) This also demonstrates that macroprudential incentives are fairly effectively used by banks to boost lending/financing. Considering the effectiveness of macroprudential incentives on loan/financing growth and their positive impact on the recovery of priority sectors, strengthening aimed to increase precision when defining the sectors eligible for incentives, while increasing the amount of incentive to banks through MLI policy. This is expected to promote higher loan/financing growth. In addition, the current financial cycle is still below its long-term trend. Such conditions confirm that there is still an opportunity to accelerate bank loan/financing growth.

Graph B5.1.1 Realisation of the Macroprudential Incentives Received by Banks



Source: Bank Indonesia, processed

Bank Indonesia honed its MLI policy for banks that disburse loan/financing to sectors that meet the five main principles: i) providing leverage for economic growth by increasing/strengthening value added, encouraging strong backward-forward linkages, and supporting economic structure, employment, business opportunities, and food security; ii) supporting recovery momentum in specific sectors (including sectors still reeling from the scarring effect of the pandemic along with contact-intensive sectors); iii) supporting inclusive and sustainable financing; iv) implementing in a targeted manner towards financing extended to specific sectors/ commodities; and v) in line and synergised with government policies and programs. Based on these principles, it was determined that loans/financing will be driven towards the downstream (mineral & coal mining and non-mineral & non-coal), housing (including public housing), tourism, inclusive (including MSME, People's Business Loans (KUR), and ultra micro), and green financial economy sectors.

In addition to adjusting the scope of eligible sectors, Bank Indonesia also increased the amount of MLI incentives from a maximum of 2.8% to a maximum of 4%. The amount of MLI incentives for banks that disburse loans/financing to downstream mineral & coal mining sectors as well as non-mineral & non-coal downstream sectors (agriculture, animal husbandry and fishing), the housing sector, and the tourism sector is a maximum of 2%. The amount of MLI incentives for banks that distribute inclusive loans/financing, as reflected in the RPIM ratio, is a maximum of 1%. The high level of attention that Bank Indonesia pays to inclusive finance is also reflected in the provision of MLI incentives for loan/financing disbursements to ultra micro businesses, both directly and indirectly, up to a maximum of 0.5%. Finally, the MLI incentives for extending green loans/financing is a maximum of 0.5%. Banks can obtain a maximum MLI incentive, therefore, of 4% as recapitulated in the following table:

Table B5.1.1 Summary of Macroprudential Liquidity Incentive (MLI) Policy

Sector	Loan/Financing Growth Threshold (%yoy)	Incentive (bps)
Mineral & Coal (Minerba) Downstream	≥3-7%	20
	>7%	30
Non-Mineral & Non-Coal (Non-Minerba) Downstream	≥3-7%	60
	>7%	80
Housing	≥3-7%	50
	>7%	60
Tourism	≥3-7%	25
	>7%	30

Sector	RPIM Achievement	Incentive (bps)
Inclusive (RPIM)	≥10-20%	10
	>20-30%	40
	>30-50%	60
	>50%	**100**

Sector	Credit Share Threshold for Ultra-Micro Loan/ Financing	Incentive (bps)
Ultra Micro	>0 - 3%	30
	>3%	**50**

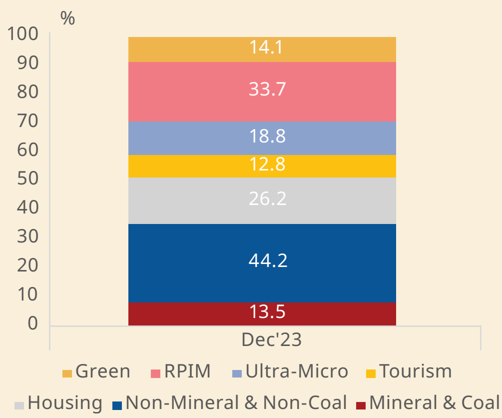
Sector	Share of Green Property and Green Automotive Loan/Financing	Incentive (bps)
Green	>0-5%	30
	>5%	**50**

Source: Bank Indonesia, processed

MLI implementation is expected further increase bank appetite to lend and boost lending/financing to the targeted sectors. MLI realisation as of December 2023 stood at Rp163 trillion, an increase from first implementation in October 2023 at Rp137 trillion and significantly higher than the previous incentive setting in September 2023 at Rp108 trillion (Graph B5.1.2). Based on bank group, the MLI incentives received by sharia banks and conventional banks amounted to Rp13.98 trillion and Rp149.3 trillion, respectively. By sector, the sectors that contributed the largest incentives included the inclusive sector and the non-mineral & non-coal downstream sector. The high amount of incentives attributable to those two sectors also reflects strong BI support for those towards the bottom of the pyramid as well as BI support to improve financial inclusion and national food security.

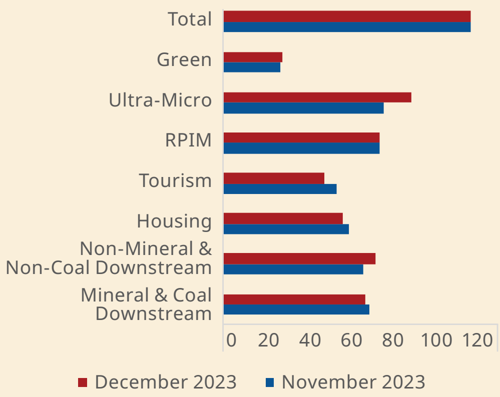
Furthermore, supporting MLI implementation requires stronger synergy and coordination with the (central and regional) government as well as relevant government ministries/ agencies. Coordination involves policy

Graph B5.1.2 MLI Realisation as of December 2023



Source: Bank Indonesia, processed

Graph B5.1.3 Number of Banks Receiving MLI Incentives



Source: Bank Indonesia, processed

harmonisation, especially between Bank Indonesia and OJK, strengthening coordination between macroprudential-fiscal stimuli, strengthening coordination between Bank Indonesia Domestic Representative Offices and regional governments (Pemda) to develop appropriate financing schemes considering the differences in schemes and downstreaming strategy in each region, as well as policy awareness campaigns targeting the banking industry and businesses.

Going forward, Bank Indonesia will continue to conduct periodic evaluations of MLI implementation effectiveness. The evaluations will be carried out based on the latest economic and financial system developments. The scope of sectors and the amount of MLI incentives will be monitored and evaluated continuously to ensure optimal support for sustainable economic growth.

Box 5.2 Macroprudential Policy for Green Economy and Finance

Climate change poses new challenges for central banks in terms of maintaining financial system stability. The risks from climate change have significant potential to trigger systemic effects (FSB, 2022) due to their irreversible and multidimensional nature. As a result, climate change risks have simultaneous and unexpected impacts on various sectors and even countries. In turn, this phenomenon causes financial losses and lowers corporate repayment capacity, which can undermine asset quality in the financial system. Mitigation and adaptation efforts are needed, therefore, including transformation towards a financial system that is resilient to climate change. Furthermore, these mitigation and adaptation measures need to be supported by central banks paying due consideration to the risks and opportunities afforded by climate change to achieve the goals of monetary and financial system stability in the long term.

Bank Indonesia is committed to supporting the achievement of the Nationally Determined Contribution (NDC) through the implementation of its mandate as a monetary and macroprudential authority. This commitment is based on awareness that climate change can affect the achievement of monetary goals and financial system stability in the long term. The physical risks of climate change have the potential to lower agricultural productivity, which could ultimately trigger price volatility. On the other hand, transition risks in the form of economic structural transformation and changes in consumer preferences pose a challenge to existing business models, potentially leading to stranded assets that can erode the repayment capacity and valuation of debtor assets, and result in disruptions to financial system stability. Therefore, macroprudential policies to mitigate systemic risks from climate change are seen as necessary. To date, Bank Indonesia has issued three macroprudential policies to support growth of sustainable finance.

First, Bank Indonesia has implemented Loan to Value (LTV)/Financing to Value (FTV) policy for green property loans/financing and downpayment (DP) requirements on green automotive loans since December 2019. Through this policy, LTV/FTV for green property loan/financing (green building) can be granted up to 100%, while DP requirements for battery electric vehicles (BEV) can be set to 0% in line with the assessment and risk management carried out by banks as lenders. The looser LTV/FTV and DP requirements have the potential to increase demand and access to finance, as well as support a shift in public preferences towards greener properties and vehicles. This policy is expected to accelerate the growth of green finance, while also stimulating the economy without ignoring environmental risks.

Second, Bank Indonesia established the Macroprudential Inclusive Financing Ratio (RPIM) policy in accordance with Bank Indonesia Regulation No. 24/3/PBI/2022 to support inclusive finance and maintain financial system stability. Banks set RPIM targets through self-assessments based on their capacity and are obligated to achieve those targets, with an evaluation period at the end of each year. The RPIM policy expands inclusive financing modalities through: (1) direct and supply chain financing;

(2) financing through financial institutions/public service agencies/business entities; and (3) inclusive finance securities (SBPI). To support sustainable finance growth, the types of securities in modality 3 were expanded to include securities for sustainable development or financial purposes. Therefore, banks can purchase sustainable financial instruments to meet RPIM targets.

Third, Bank Indonesia has implemented MLI policy in the form of a reduction in the percentage of the average Statutory Reserve Requirement (GWM) that must be met. MLI incentives are awarded to banks that disburse loans/financing to specific sectors, including ultra micro businesses, green businesses, and others as determined by Bank Indonesia (Bank Indonesia Regulation No. 11 of 2023). Through MLI policy, Bank Indonesia provides incentives to banks on a tiering basis for achieving the RPIM ratio, the highest being 1%, which can be achieved through, among others, the purchase of SBPI. This policy also allows banks to obtain MLI incentives up to a maximum of 0.5%, compared with the previous maximum of 0.3%, if the bank fulfils a share of green loans/financing of more than 5% of its total loan/financing portfolio. Strengthening this policy is expected to be an incentive for banks to support the transition, consider sustainable practices, including when assessing loans/financing, and increase their portfolio allocation to financing green activities.

Supporting sustainable economic and financial growth, Bank Indonesia's existing policies do not stand alone but are instead synergised with the policies of other relevant authorities. To that end, Bank Indonesia has established coordination and synergy with OJK and the Ministry of Finance (MoF) to formulate a policy mix that supports growth of sustainable finance. In February 2024, OJK published a Taxonomy for Sustainable Finance in Indonesia to map and promote investment in green sectors. This mapping of business activities is expected to serve as the foundation for sustainable policy development, including sustainable reporting, incentives and disincentives, and the development of sustainable finance products and/or services. From the fiscal side, the Ministry of Finance implements policies to encourage environmentally friendly sectors in terms of income, expenditure and funding, such as tax breaks to attract investment and accelerate the use of battery electric vehicles (BEV), budget allocation for climate change mitigation and adaptation, and issuance of green funding instruments, such as Global Green Sukuk, SDG Bonds, and Samurai Blue Bonds. In addition to that synergy and coordination, Bank Indonesia continues to review and explore the potential to support sustainable economic and financial development in the future so that it can be a catalyst for the transition process to achieve Indonesia's NDC.

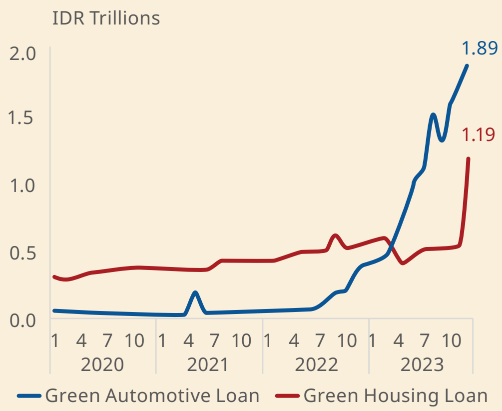
Box 5.3 Banking Industry Contribution to Green Financing: Appreciation for Banks Supporting Green Finance

Promoting green economic development requires sustainable practices in the financial system. The transition to a sustainable economy and financial system is essential to mitigate and adapt to the risks of climate change. This transition process requires significant financial support, both from a sectoral and intertemporal perspective. In this context, the Ministry of Environment and Forestry (KLHK), through its Third Biennial Update Report in 2021, estimated that Indonesia's financing needs for climate change mitigation and adaptation will reach USD281 billion by 2030. This translates to an annual financing requirement of approximately Rp440 trillion, equivalent to approximately 15-16% of the State Revenue and Expenditure Budget (APBN) in 2023. To meet this financing need, broad-based funding sources are required, involving not only the public sector but also active participation from the private sector, particularly the banking industry.

Despite facing real challenges due to the nascent nature of the ecosystem, the banking industry in Indonesia continues to show improving performance in financing and funding activities that consider environmental aspects. The growth of financing sustainable activities is inseparable from the support of Bank Indonesia through incentives in the form of relaxing the Loan To Value (LTV)/Financing To Value (FTV) obligations for green property loans/financing and incentives in the form of easing the downpayment requirements for battery electric automotive loans/financing (KKB). With these incentives, banks disbursed sustainable housing loans (KPR) and automotive loans/financing (KKB) with a value of Rp3.08 trillion as of December 2023, a significant increase compared to the position in December 2022 at Rp0.96 trillion. Moving forward, there is still room for banks to increase the distribution of green housing and automotive loans, considering their proportion is still relatively low compared to total housing and property loans, namely 0.17% for green housing loans and 1.46% for green automotive loans. In addition, BI support is also demonstrated in incentives in the form of easing the fulfilment of Macroprudential Inclusive Financing Ratio (RPIM) obligations through the ownership of sustainable bonds. Based on data from the ASEAN Capital Market Forum, banks in Indonesia issued green bonds with an outstanding value of approximately Rp22 trillion as of December 2023. Although it has shown positive performance, the optimisation of sustainable finance and funding performance needs to be continuously improved by prioritising the aspect of equity so that all bank groups and types can contribute to sustainable financing and funding.

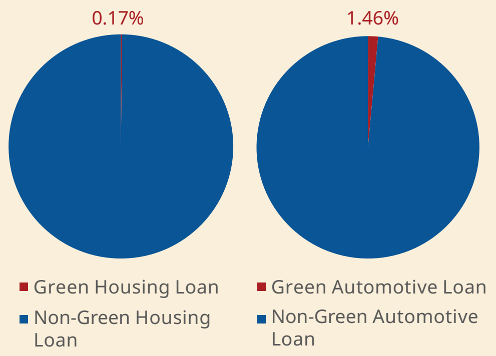
To recognise and motivate sustainable financial practices among banks, Bank Indonesia initiated the Green Finance Supporting Bank Award. This award is presented to banks that demonstrate performance excellenece in environmentally friendly intermediation practices, both through

Graph B5.3.1 Development of Green Housing Loan (KPR) and Automotive Loan (KKB) Disbursements



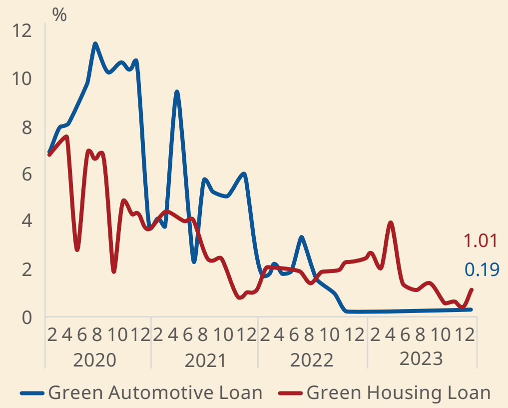
Source: Bank Indonesia, processed

Graph B5.3.2 Proportion of Green Housing Loans (KPR) and Automotive Loans (KKB)



Source: Bank Indonesia, processed

Graph B5.3.3 Development of Non-Performing Loans for Green Housing Loans (KPR) and Automotive Loans (KKB)



Source: Bank Indonesia, processed

the disbursement of financing that considers environmental aspects and through efforts to support the deepening of sustainable financial markets. In this context, financial market deepening is achieved through the issuance of green financial instruments or bonds, the proceeds of which are used to finance sustainable activities. The assessment covers various aspects, including governance, action plans and transition strategies, climate change risk management, and the availability of clear and credible metrics and targets to achieve sustainability goals. In 2023, the Green Finance Supporting Bank Award was presented to Bank Rakyat Indonesia for the bank groups based on core capital (KBMI) 3 and KBMI 4 subcategory, and Bank Raya Indonesia for the KBMI 1 and KBMI 2 subcategory. Recognising of the best green finance supporting bank is also expected to promote improvements in the quality of sustainable governance and disclosure by banks.

The Green Finance Supporting Bank Award is expected to drive the pace of innovation and sustainable finance growth. The presentation of this award serves as one of the communication strategies to demonstrate BI support for environmentally friendly financial innovation and practices by the banking industry. Central bank communication plays a crucial role in influencing stakeholder behaviour and assisting them in comprehending the direction of future policy[47]. One form of indirect communication is through the presentation of awards or recognition, which not only creates a positive image and reputation for the awardees but also encourages the development of related institutions and motivates other institutions to adopt similar business practices[48]. The presentation of the Green Finance Supporting Bank Award is expected, therefore, to increase bank motivation to consistently improve performance, particularly in innovating and strengthening sustainable financial practices.

47 Bank for International Settlements. (2016). Objective-setting and communication of macroprudential policies. *Committee on Global Financial System Papers No. 57*.

48 Frey, B. S. (2006). *Giving and receiving awards. Perspectives on Psychological Science, 1(4)*, 377–388. https://doi.org/10.1111/j.1745-6916.2006.00022.x

Chapter 6

INTERMEDIATION OUTLOOK AND MACROPRUDENTIAL POLICY DIRECTION

A sluggish global economic recovery presents a challenge to Indonesia's continued economic recovery. Longer tightening of monetary policies in advanced economies (higher for longer) presents a challenge to central banks globally. The tight monetary policies of advanced economies stem from a slower disinflation process amid a restrained economic recovery. As a corollary of persistently high inflation in the US, the Fed Funds Rate (FFR) is expected to only begin falling in the second semester of 2024. Consequently, the global economy is forecast to grow by 3.1% in 2023 and 3.0% in 2024. Meanwhile, Indonesia's economic recovery remains intact on the back of improving exports, solid domestic demand, and positive confidence among economic actors. Household consumption and investment, particularly non-building investment, must be promoted continuously to support sustainable economic growth. Moving forward, domestic economic growth in 2024 is forecast to increase within the 4.7-5.5% range.

Going forward, banking intermediation is expected to continue growing given maintained financial system stability. Loan growth optimism is supported by higher economic growth expectations, controlled inflation, conducive interest rates, and the continuation of national strategic projects (PSN). Banking intermediation moving forward is also supported by strong banking resilience through low credit risk and strong capital. On the demand side, corporate financing is expected to increase in line with better economic growth prospects. In addition, resilient household consumption has also boosted demand for consumer loans. On the inclusion side, faster growth of MSME loans is expected to persist in line with improved MSME turnover and disbursements of People's Business Loans (KUR). With such developments, the bank intermediation function is expected to grow 10-12% in 2024 and before accelerating to 11-13% in 2025.

Bank Indonesia will continue its pro-growth macroprudential policy stance combined with strengthening synergy to support sustainable economic growth and financial system stability. Pro-growth macroprudential policy is implemented by improving the effectiveness of Macroprudential Liquidity Incentive (MLI) policy and easing the Macroprudential Liquidity Buffer Policy (MLB). In addition, Bank Indonesia also continues a number of pro-growth macroprudential policies, namely Loan to Value/Financing to Value, Macroprudential Intermediation Ratio, Countercyclical Capital Buffer (CCyB), and Prime Lending Rate (PLR) Transparency policy. In line with pro-growth macroprudential policy, Bank Indonesia conducts indirect supervision (surveillance) and direct supervision (inspections) on a thematic basis. In addition, Bank Indonesia consistently strengthens the financial sector cross-authority synergy in KSSK and bilateral synergy between Bank Indonesia-OJK and Bank Indonesia-LPS. Such synergy aims to anticipate the potential spillover effects of global and domestic uncertainties on the domestic financial system. KSSK synergy is carried out in, among others, a cross-authority policy mix and formulation of a number of regulations as a follow-up of the P2SK Act. Bilaterally, Bank Indonesia coordinates with OJK in terms of, among others, sharing macroprudential-microprudential-related analyses, coordination of banking sector policy drafts, and joint banking supervision. Meanwhile, bilateral coordination with LPS is carried out in, among others, the formulation of macroprudential-related regulations and the mitigation of bank issues.

6.1 Future Global and Domestic Strategic Environments

Global economic growth is moderating amid high financial market uncertainties. The global economy is expected to grow 3.1% in 2023 and by 3.0% in 2024, mainly supported by stronger economic performance in the US and India in line with high consumption and investment. Meanwhile, persistently weak economic growth in China and economic contractions in the UK and Japan that occurred in two consecutive quarters may pare back the global economic growth outlook. The continuing deepening of geopolitical tensions may also disrupt supply chains, increase food and energy prices, and prolong the global disinflation process. Consequently, global financial market uncertainty remains high. The FFR is expected to only begin to decline in the second semester of 2024 in line with persistently high inflation in the US. US Treasury yield has increased in line with the long-term risk premium (term-premia). This has caused a strong US dollar globally, restrained foreign capital inflows, and intensified currency pressures in emerging market countries. Such conditions demand a strong policy response to mitigate the deleterious global spillovers to the Indonesian economy.

Indonesia's economic recovery will continue. Bank Indonesia expects economic growth in 2024 to increase within the 4.7-5.5% range. This outlook is based on improving exports, solid domestic demand, and positive confidence among economic actors. Household consumption and investment, particularly non-building investment, must be promoted continuously to support sustainable economic growth. In terms of economic sectors, the outlook for manufacturing, wholesale and retail trade, information and communication, construction, as well as transportation and storage are expected to remain favourable. Spatially, promising growth is expected to occur across all regions, including Sulawesi-Maluku-Papua (Sulampua) in line with the positive effects from mineral downstreaming, as well as in Java on the back of persistently strong domestic demand. Going forward, Bank Indonesia will continue to strengthen its policy mix, particularly through macroprudential and payment system policies, and to build synergy with the fiscal stimuli of the Government to drive economic growth, particularly from the domestic demand side.

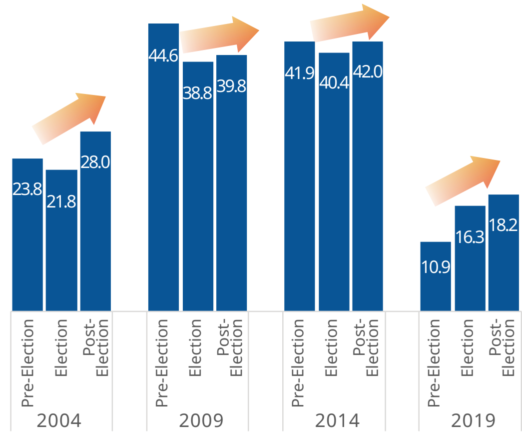
6.2 Outlook for Intermediation: Loan Growth Prospects on Corporate and Household Consumption

Financial system stability that is expected to remain under control and optimism stoked by economic growth will drive loan growth further. Banking intermediation is expected to grow by 10-12% in 2024 and will continue to increase in 2025 in the 11-13% range. Credit growth optimism is supported by increasing economic growth expectations, controlled inflation, conducive interest rates, and the continuation of National Strategic Project (PSN). Increasing domestic economic activity moving forward will drive the increase in financing needs, both from corporates and households. In terms of supply, banks are expected to maintain strong capacity and appetite for lending. The adequacy of banking liquidity provides ample room to support loan growth. Banks tend to distribute loans to strong-performing sectors that have been understood and those with measurable risks.

Bank intermediation going forward will also be supported by strong banking resilience, namely low credit risk and strong capital. The results of stress tests throughout 2023 demonstrate bank resilience that remains strong in the face of global volatility, while taking into account the discontinuation of the extension of targeted and sectoral financing and credit restructuring policy at the end of March 2024. Controlled banking resilience is also supported by high provisions for impairment losses (CKPN) and an adequate Capital Adequacy Ratio (CAR).

On the demand side, corporate financing is expected to increase in line with better economic growth prospects. Corporations mainly require financing in the form of Working Capital Loans in line with the growth of corporate sales and lower cash positions. Meanwhile, corporations tend to withhold investments during an election period, thus demand for Investment Loans is expected to slow down at the beginning of year. Based on the historical data presented in Graph 6.2.1, Investment Loans are expected to increase in the post-election period, in line with corporate Capex realisation. Downstream activities also carry the potential to increase investment loans, particularly for the manufacture of intermediate goods to strengthen the supply chain.

Graph 6.2.1 Capex Realisation during Pre-Election, Election and Post-Election Periods



Source : Bank Indonesia, processed

Resilient household consumption also increases demand for financing, particularly consumer loans. Improving economic prospects have driven increasingly optimistic expectations in terms of employment. Household consumption is mainly contributed by upper class households with high income. Meanwhile, the distribution of social aid disbursements is expected to support consumption among lower income households. All social aid programs will be continued in 2024 with a nominal value of Rp496.8 trillion, representing an increase of 4.4% compared with 2023. In terms of demographics, household consumption is mainly supported by the young generation who play an increasingly larger role in the economy. Housing Loan (KPR) growth is also expected to accelerate in line with increasing residential property sale in the primary market and the Government-borne VAT incentive.

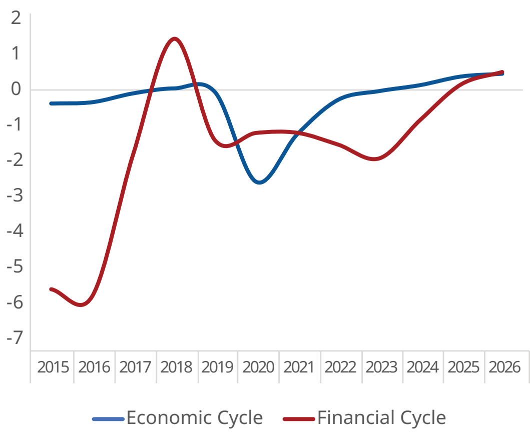
MSME Loans are expected to continue growing on the back of People's Business Loan (KUR) disbursements, supported by improving MSME turnover. The Government has set a target for KUR distribution of Rp300 trillion, which is expected to be absorbed optimally at the beginning of year. The optimisation of KUR disbursements is also supported by adequate interest subsidy and margin subsidy budgets, as well as the implementation of Agricultural Machinery Business Loans. MSME Loan achievement was also supported by a persistently optimistic demand side. The results of MSME surveys conducted by Bank Indonesia demonstrate optimistic MSME turnover performance in 2024, with the expectation of a higher MSME business index. Demand performance is also supported by fiscal incentives in the form of MSME direct cash assistance (BLT) and the MSME Final Income Tax incentive. Going forward, the growth of MSME loan can be directed towards the F&B, fashion, and crafts sectors to further strengthen their leverage in the national economy.

There are a number of challenges to be addressed, however, including low bank deposit growth and the discontinuation of relaxed credit restructuring. The sustainability of bank deposit growth needs to be maintained to support adequate liquidity for banking intermediation. Several factors that may potentially affect bank deposit growth include the realisation of fiscal expansion and non-bank (corporates, households, NBFI and non-residents) fund placement preferences. Banks are expected to strengthen non-deposit funding as an alternative funding source, among others through the reallocation of marketable securities. In addition, there are risks of restructured credit relapses for certain debtors who secured an extension to the relaxed credit restructuring from OJK up to March 2024, including MSME loans, accommodation and food service activities, textiles and textile products as well as footwear, and loans in the Bali region.

6.3 Direction of Pro-Growth Macroprudential Policy

Bank Indonesia will continue its pro-growth macroprudential policy stance to support sustainable economic growth. Accommodative macroprudential policy is an integral part of the posture of Bank Indonesia's policy mix, together with pro-growth payment system policy and a more pro-stability monetary policy. This policy mix is based on the economic and financial cycles that are expected to increase but remain below potential economic capacity, as reflected in the availability of room for growth of loans/financing, as well as economic growth that has not fully recovered from the Covid-19 pandemic. Bank Indonesia forecast the economic and financial cycles to continue increasing towards a boom period in 2025-2026 for the economic cycle and in 2026-2027 for the financial cycle (Graph 6.3.1). Therefore, a loose macroprudential policy stance will continue to be maintained in 2024 up to mid-2025 to continuously drive bank lending/financing, while maintaining financial system stability. The support of loose macroprudential policy is expected to increase national economic growth, particularly in priority sectors, as well as MSMEs and the green economy as an extension of the sustainable economy and finance.

Graph 6.3.1 Economic and Financial Cycles in Indonesia



Source : Bank Indonesia, processed

Loose macroprudential policy is implemented by improving the effectiveness of Macroprudential Liquidity Incentive (MLI) Policy and easing the Macroprudential Liquidity Buffer Policy (MPLB). Under MLI policy, Bank Indonesia provides liquidity incentives of up to 4% of bank deposits to banks that disburse loans/financing to priority sectors, including downstream sectors (mineral and coal, agriculture, animal husbandry, plantation, and fisheries), housing (including public housing), tourism and the creative economy, as well as MSMEs, KUR, Ultra Micro and the green economy. Bank Indonesia will continuously evaluate the effectiveness of MLI policy in supporting the distribution of bank loans/financing to sectors that are able to drive economic growth. Furthermore, liquidity easing is also carried out through a reduction to the MPLB ratio of 100bps, effective from 1st December 2023, both for conventional commercial banks and sharia commercial banks, to 5% and 3.5%, respectively. The reduction in the MPLB ratio was introduced in line with strong bank liquidity, as demonstrated by a liquid assets to deposits ratio of 28.73% in December 2023. Looser liquidity requirements are expected to provide banks with greater flexibility in terms of liquidity management to support banks increase the distribution of loans/financing.

In addition, Bank Indonesia will also continue a number of pro-growth macroprudential policies, namely Loan to Value/Financing to Value, the Macroprudential Intermediation Ratio, Countercyclical Capital Buffer (CCyB), and Prime Lending Rate (PLR) Transparency policy. Bank Indonesia has extended the easing of the maximum limit of Loan to Value/Financing to Value (LTV/FTV) ratio for property loans/financing and minimum downpayment requirements for automotive loans/financing (KKB/PKB), effective from 1st January to 31st December 2024. Meanwhile, accommodative policies towards capital will be maintained through Countercyclical Capital Buffer (CCyB) policy. Bank Indonesia will maintain a CCyB ratio of 0% until the end of December 2024. Furthermore, Macroprudential Intermediation Ratio (MIR) policy is maintained in the range of 84-94% to drive bank lending/financing at an optimal level. PLR transparency policy will also be continued to promote the effective transmission of monetary and macroprudential policies.

In line with the direction of pro-growth macroprudential policy, Bank Indonesia conducts indirect supervision (surveillance) by monitoring, identifying and assessing the development of banking intermediation and the related risk exposures. Surveillance is conducted using the Dynamic Systemic Risk Surveillance (DSRS) approach to analyse macroprudential areas in an integrated and comprehensive manner, including their correlation with monetary, money market, foreign exchange market, and payment system areas. Under the DSRS approach, surveillance is conducted based on the systemic risk escalation stages, namely risk build up/accumulation, risk materialisation, as well as risk amplification and propagation.

As a complement to the surveillance results, Bank Indonesia conducts direct supervision (on-site inspections) on a thematic basis. Thematic inspections are conducted for certain banks based on the pre-determined supervision focus and strategy. The results of such inspections may be used as one of the efforts to evaluate policies, while monitoring compliance-based policy implementation.

6.4 Policy Synergy with KSSK and Relevant Authorities to Strengthen the Financial Sector

Bank Indonesia will continue strengthening cross-authority coordination in the financial sector through the Financial System Stability Committee (KSSK). Strengthening synergy is intended to anticipate the propagation of uncertainties at the global and domestic levels that may potentially affect domestic economic performance and the financial system. Strengthening synergy is achieved through a cross-authority policy mix that aims to support sustainable domestic economic growth. Bank Indonesia, together with KSSK, is actively involved in discussions with economists, business actors and other stakeholders to obtain comprehensive information and feedback on the development of economic conditions and the financial sector in order to formulate an effective and credible policy mix. Inter-authority coordination is carried out through periodic meetings scheduled on a quarterly basis, and other meetings/conventions at all levels, either at the technical, management, and deputy levels, which are conducted both periodically and incidentally to discuss, among others, matters/issues that may potentially have significant implications on financial system stability.

KSSK synergy is also continued to follow up the mandate of Act No. 4 of 2003 concerning Financial Sector Development and Strengthening (P2SK Act). Following the formulation of P2SK derivative regulations, as of Q4/2023, the P2SK Act implementation regulations that have been issued include, among others, one Government Regulation, six Bank Indonesia Regulations (PBI), 19 OJK Regulations (POJK), and two LPS Regulations (PLPS). Going forward, Bank Indonesia continuously contributes to joint discussion in its capacity as a KSSK member with respect to the issuance of regulations as implementation of the P2SK Act that involves relevant government agencies and/or ministries. Furthermore, Bank Indonesia is also committed to issue Bank Indonesia regulations as implementation of the P2SK Act.

Bilaterally, Bank Indonesia will continue strengthening the coordination mechanism between Bank Indonesia-OJK and Bank Indonesia-LPS. Bank Indonesia-OJK coordination will continue to be conducted intensively through the sharing of macroprudential-microprudential related information and analyses, and to intensively monitor risk and formulate mitigation measures in accordance with the authority of each institutions. In addition, future drafts of Bank Indonesia's policies will continue to be coordinated with the relevant authorities as a form of synergy to support banking sector development. Coordination in conducting joint inspections of banks will continue to be strengthened to improve the quality of supervision and implementation of policies in the financial sector. In terms of Bank Indonesia-LPS coordination, strengthening the coordination foundation for both institutions has been agreed to optimise the implementation of functions, duties and authorities of each institution. In this case, coordination lies in the harmonisation of macroprudential regulations and the resolution of banking issues in accordance with their respective authorities, which will continue to be strengthened to align the policies adopted by both authorities.

Box 6.1 Use of Machine Learning in Projecting Financial System Stability Indicators

Seeking to maintain financial system stability, Bank Indonesia continues to strengthen monitoring over financial system stability indicators, including through the utilisation of machine learning. Indicator monitoring aims to prevent vulnerabilities building up that may potentially disrupt financial system stability. The results of monitoring serve as feedback in formulating both pre-emptive and forward-looking policies. Financial system stability indicator monitoring also includes future anticipatory measures taken based on indicator forecasts. Therefore, forecasting financial system stability indicators in the short-term (Near-Term Forecast) with credible accuracy has become essential. Supporting credible forecast results, Bank Indonesia utilises a number of quantitative methods, including the use of machine learning methods, particularly Supervised Machine Learning (SML). This method has become optimal in line with the increasing amount of data and complexity of interactions in the financial system. Similar steps have been taken by several central banks around the world, including the Federal Reserve in the US Treasury forecast and in forecasting the occurrence of a recession, the Central Bank of Malaysia in forecasting macroeconomic indicators based on sentiment, the Central Bank of the Russian Federation in forecasting exports and foreign direct investment (FDI).[49]

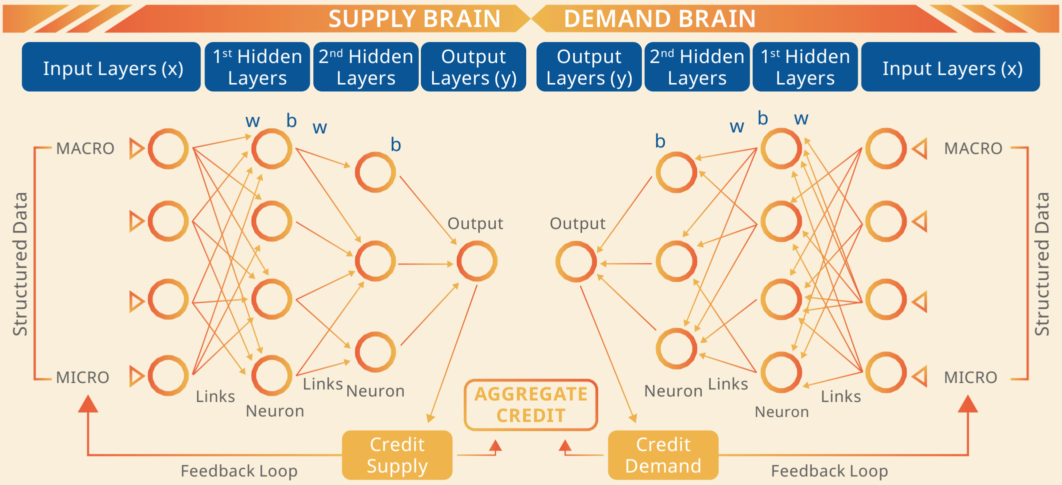
The main challenge in utilising machine learning for forecasting is the limited information on input and output inter-variable causality. Bank Indonesia has implemented several Supervised Machine Learning methods in forecasting, including Gaussian Process Regression, Support Vector Machine, and Neural Networks, among others. SML consists of several methods, however, each of which uses a different approach in resolving issues, and therefore often cannot be easily understood. As a result, SML forecast results are susceptible to the black box problem, namely the phenomenon where forecast results are difficult to explain. The black box problem can be resolved by utilising several algorithms, such as Shapley Value and Local Interpretable Model-Agnostic Explanations, to understand predictor importance or feature importance. In addition, a Partial Dependent Plot can be used to explain the correlation between predictor variables and the projected indicators. Interpretability of an SML model is important to understand the alignment of inter-variable relations with the theory.

The use of machine learning in forecasting can complement the use of econometric methods. Machine learning methods offer flexibility in solving problems as they are not dependent on various statistical assumptions as in the econometric methods. However, this method has a weakness in explaining inter-variable relations. As a result, the forecast results from machine learning may be difficult to explain at times. On the contrary, the econometric method can explain inter-variable relations although it is less flexible. Accordingly, both methods are mutually complementary to each other and serve as benchmarks to ensure consistent forecast results.

One SML implementation in financial system stability indicator forecasting at Bank Indonesia is the forecast of industry credit growth using the Neural Network method. The credit growth forecast model

49 Araujo, D., Bruno, G., Marcucci, J., Scmidt, R., & Tissot, B. (2022). Machine learning applications in central banking. Irving Fisher Committee Bulletin, 57: Proceedings of the IFC-Bank of Italy Workshop on "Data Science in Central Banking", Part 1: Machine learning applications, Rome (virtual event), 19-22 October 2021.

Figure B6.1.1 Structure of Neural Network from Credit Growth Prediction Model



Source: Bank Indonesia, processed

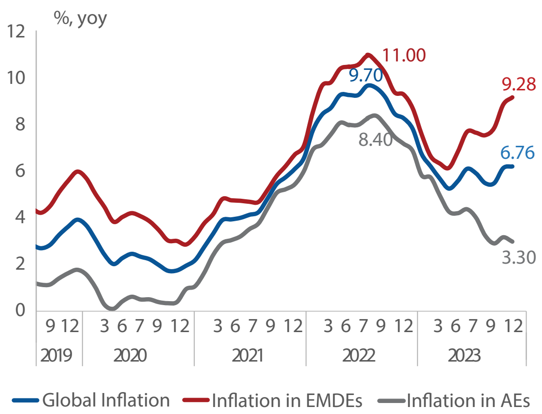
uses structured data as an input predictor. The network structure consists of the supply side (supply brain) and the demand side (demand brain). The predictor inputs on the credit demand side include, among others, macroeconomic variables, corporate and household performance that affect demand for credit. On the other hand, the predictor inputs on the credit supply side include, among others, macroeconomic variables and performance of banks, which serve as the intermediation agent in the financial system. The Neural Network is estimated using the Nonlinear Autoregressive Network with eXogenous input (NARX) method, which is superior in projecting non-linear patterns in time series data.

Going forward, Bank Indonesia will continue developing machine learning based financial system stability indicator forecast models to support policy assessments and formulation. The machine learning method has been used to forecast several financial system stability indicators, including banking and corporate indicators. In addition to industrywide credit growth, several other bank indicators for forecasting include working capital loans, consumer loans, housing loans, non-performing loans, and lending rates. Meanwhile, several corporate indicators for forecasting using machine learning include the Interest Coverage Ratio and Capital Expenditure.

APPENDIX

Chartpack

Global inflation was in a downward trend



Note: Dec'23: preliminary figure
Source: Bloomberg and IMF, processed

The policy rates of some central banks remained high

Group	Central Bank	2021	2022	2023
EM Europe	CBRT	14.00	9.00	42.50
	RUSSIAN Fed	8.50	7.50	16.00
EM LATAM	BCB	9.25	13.75	11.75
	Banxico	5.43	10.50	11.25
	BCCH (Chile)	4.00	11.25	8.25
EM Asia	RBI	4.00	6.25	6.50
	BSP	2.00	5.50	6.50
	BNM	1.75	2.75	3.00
	BOK	1.00	3.25	3.50
	BOT	0.50	1.25	2.50
	PBOC	2.95	2.75	2.40
Advanced Economies	RBNZ	0.75	4.25	5.50
	FED	0.25	4.50	5.50
	BOE	0.25	3.50	5.25
	RBA	0.10	3.10	4.35
	BOJ	0.00	0.00	-0.01
	ECB	0.00	2.50	4.50

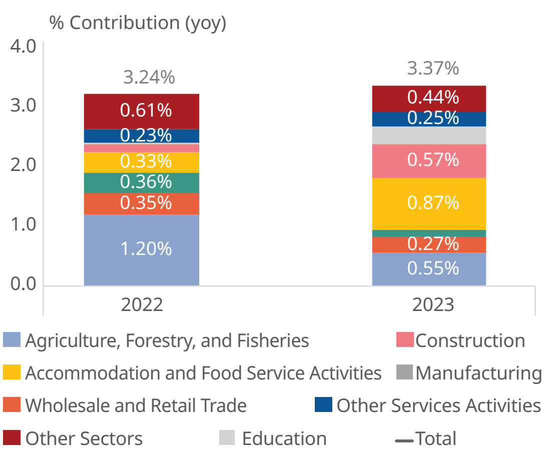
Source: Bloomberg, processed

Domestic economic growth remained robust and occurred across all sectors of the economy

Component	(%, yoy) 2021	2022 I	2022 II	2022 III	2022 IV	2022	2023 I	2023 II	2023 III	2023 IV	2023
Agriculture, Forestry, and Fisheries	1.87	1.16	1.68	1.95	4.51	2.25	0.44	2.03	1.49	1.12	1.30
Mining and Quarrying	4.00	3.82	4.01	3.22	6.46	4.38	4.92	5.01	6.95	7.46	6.12
Manufacturing	3.39	5.07	4.01	4.83	5.64	4.89	4.43	4.88	5.19	4.07	4.64
Electricity and Gas	5.55	7.04	9.33	8.05	2.31	6.61	2.67	3.15	5.06	8.68	4.91
Water Supply, Sewerage, Waste Management and Remediation Activities	4.97	1.35	4.46	4.26	2.84	3.23	5.69	4.78	4.49	4.66	4.90
Construction	2.81	4.83	1.02	0.63	1.61	2.01	0.32	5.23	6.39	7.68	4.91
Wholesale and Retail Trade; Repair of Motor Vehicles and Motorcycles	4.63	5.74	4.43	5.37	6.56	5.53	4.94	5.29	5.10	4.09	4.85
Transportation and Storage	3.24	15.79	21.27	25.80	16.99	19.87	15.93	15.28	14.74	10.33	13.96
Accommodation and Food Service Activities	3.88	6.57	9.79	17.79	13.77	11.94	11.54	9.91	10.94	7.89	10.01
Information and Communication	6.82	7.15	8.06	6.94	8.72	7.73	7.11	8.03	8.51	6.74	7.59
Financial and Insurance Activities	1.56	1.64	1.50	0.87	3.76	1.93	4.45	2.86	5.24	6.56	4.77
Real Estate Activities	2.78	3.78	2.16	0.63	0.39	1.72	0.37	0.96	2.21	2.18	1.43
Business Activities	0.73	5.96	7.92	10.79	10.42	8.77	6.37	9.59	9.37	7.62	8.24
Public Administration and Defence, Compulsory Social Security	-0.33	-1.29	-1.53	12.47	1.77	2.51	2.10	8.16	-6.24	1.61	1.50
Education	0.11	-1.41	-1.07	4.45	0.40	0.57	1.02	5.43	-2.07	2.63	1.78
Human Health and Social Work Activities	10.45	4.52	6.51	-1.70	2.48	2.75	4.77	8.28	2.91	3.09	4.66
Other Services Activities	2.12	8.25	9.26	9.13	11.14	9.47	8.90	11.89	11.14	10.15	10.52
GDP	**3.70**	**5.02**	**5.46**	**5.73**	**5.01**	**5.31**	**5.04**	**5.17**	**4.94**	**5.04**	**5.05**

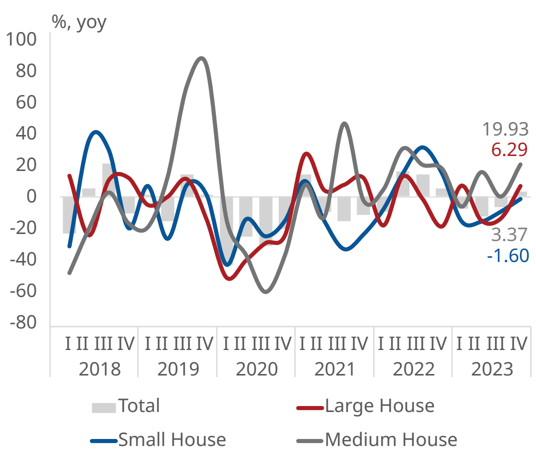
Source: Statistics Indonesia, processed

Corporate performance supported job creation



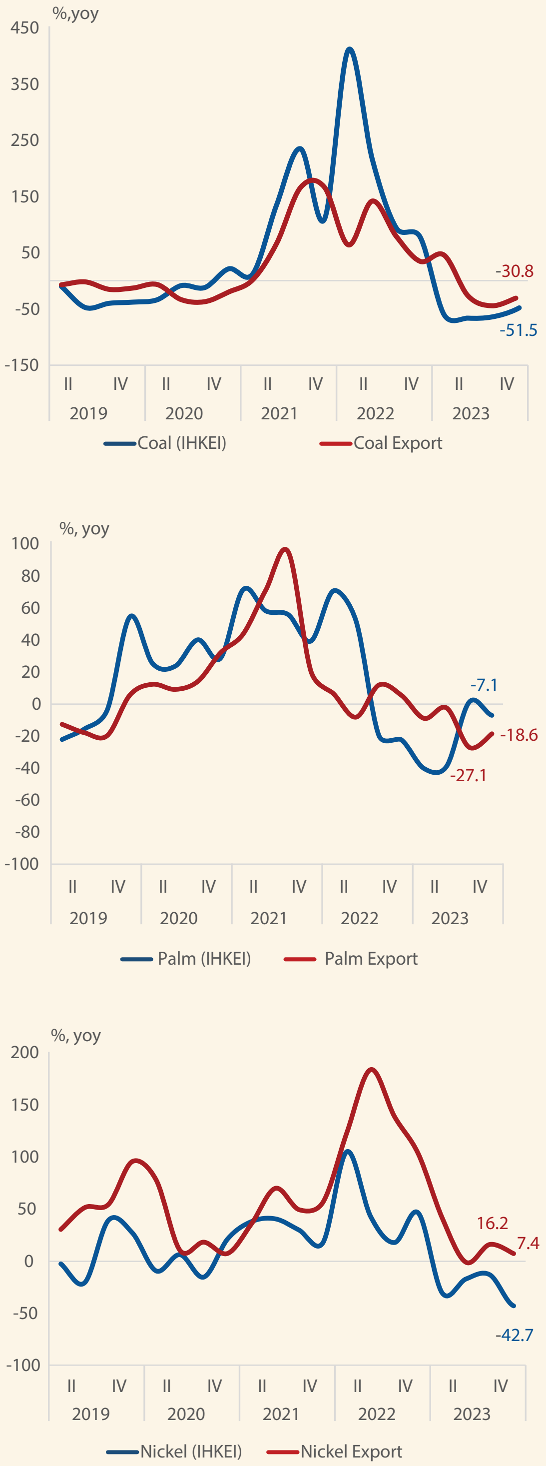
Source: Statistics Indonesia, processed

Strong household income drove housing sales



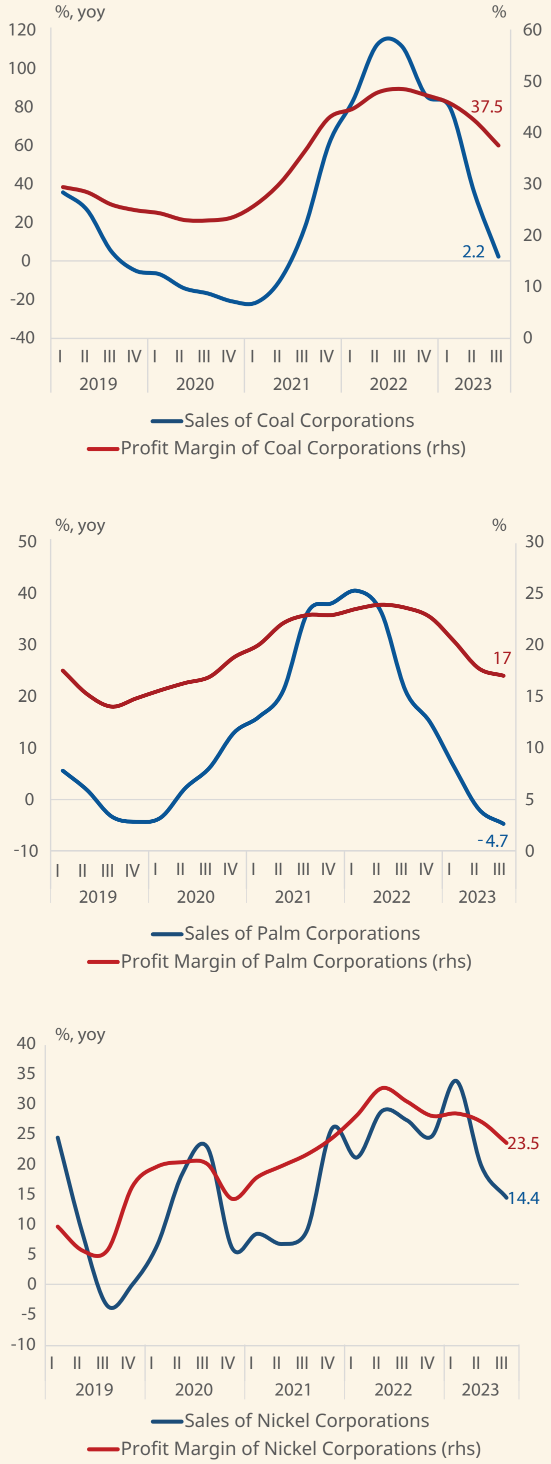
Source: Bank Indonesia, processed

The decline in commodity prices moderated export growth



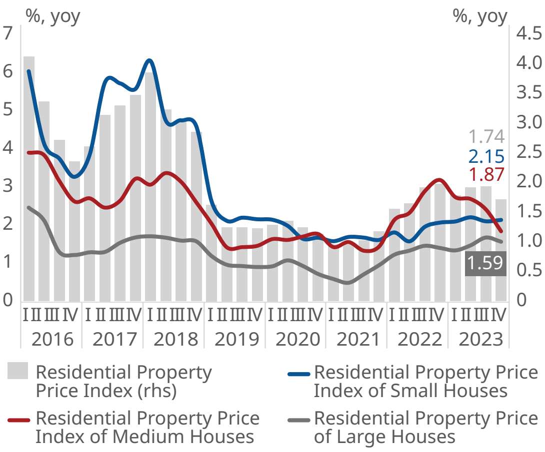
Source: Bank Indonesia, processed

The performance of major commodity corporations remained positive



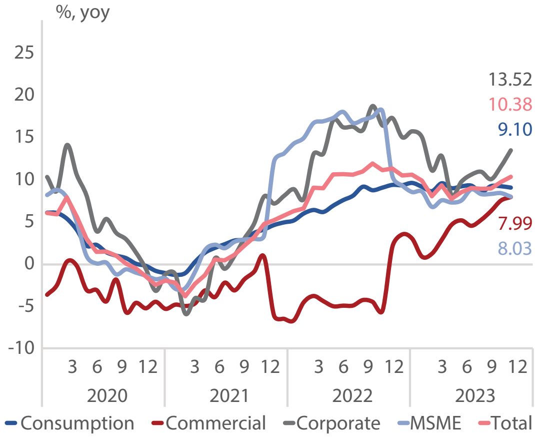
Source: Bloomberg, processed

The increasing residential property sales drove up residential property prices in the primary market



Source: Bank Indonesia, processed

Bank loan continued to grow, driven by the corporate segment



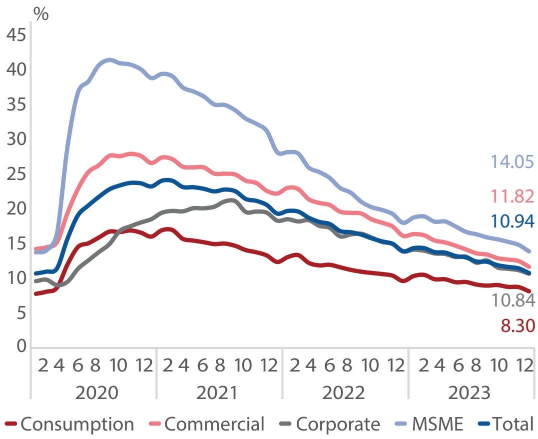
Source: Bank Indonesia, processed

Loan growth remained positive across almost all economic sectors

Economic Sector	Growth (%, yoy)			Share (%)
	Dec-22	Jun-23	Dec-23	Dec-23
1. Agriculture	10.10	7.42	8.45	7.31
2. Mining	54.35	20.02	22.36	4.10
3. Manufacturing	12.19	1.70	4.72	15.76
4. Electricity, Gas, and Water Supply	1.64	-7.79	13.33	2.59
5. Construction	4.26	5.73	-0.37	5.57
6. Trade	6.61	3.62	8.77	17.91
7. Transportation	2.22	5.11	19.28	5.27
8. Corporate Services	26.60	20.41	16.98	10.24
9. Social Services	18.23	28.00	35.06	3.98
10. Others	9.32	9.03	9.10	27.27
Total	**11.35**	**7.76**	**10.38**	**100.00**

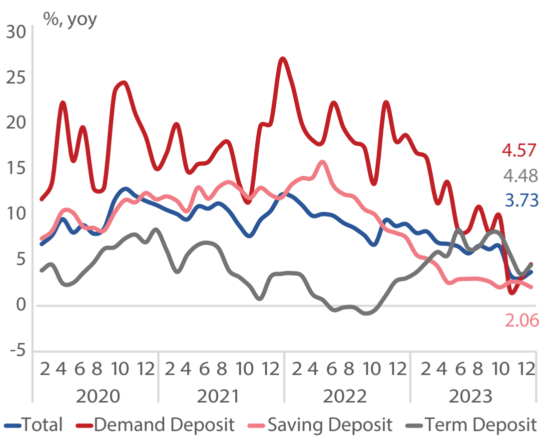
Source: Bank Indonesia, processed

Declined in Loan at Risk across all segments reflected maintained credit risk



Source: Bank Indonesia, processed

Bank deposit growth was supported by demand deposit growth



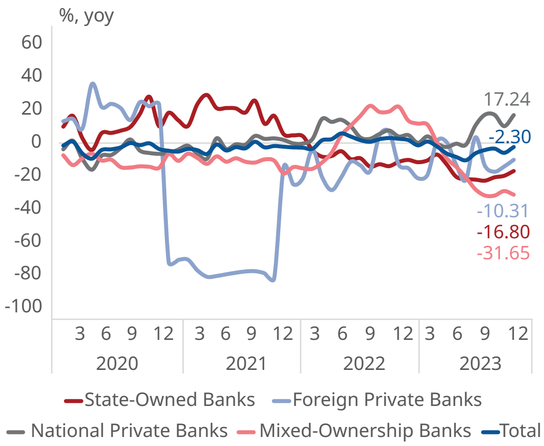
Source: Bank Indonesia, processed

Corporate and individual segments contributed to bank deposit growth

Segment	Bank Deposit (%, yoy)		Bank Deposit (%, ytd)		Contribution (%, yoy) Dec'23	Share (%)
	2023		2023			
	Jun	Dec	Jun	Dec		
Non-Residents	18.18	-0.90	3.57	-0.90	-0.01	1.05
Government State-Owned Enterprises	22.19	3.64	-7.40	3.64	0.25	6.98
Government Non-State-Owned Enterprises	-7.53	-4.42	25.23	-4.42	-0.23	4.76
Individual	4.37	3.13	-0.40	3.13	1.50	47.55
Private NBFI	-3.34	-1.45	1.30	-1.45	-0.06	3.71
Corporations	8.97	6.50	-5.87	6.50	2.28	35.95
Total	**5.79**	**3.73**	**-2.02**	**3.73**	**3.73**	**100.00**

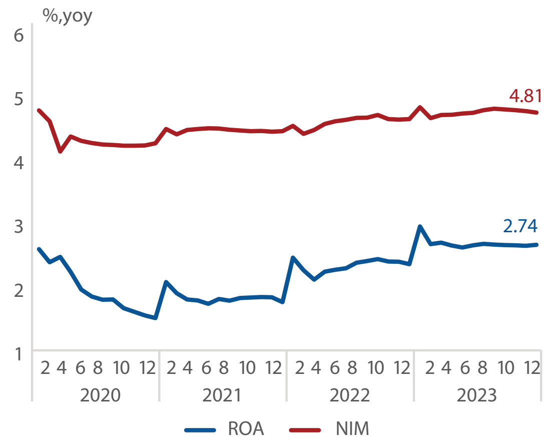
Source: Bank Indonesia, processed

The growth of bank external debt slowed down in almost all bank groups



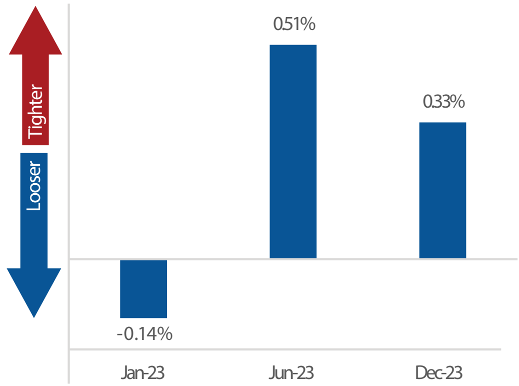
Source: Bank Indonesia, processed

Bank profitability continued to rise



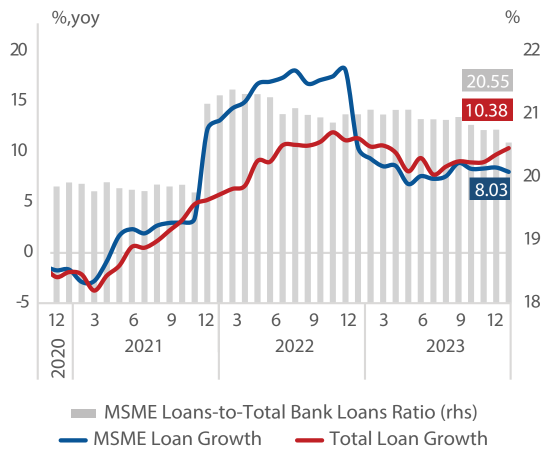
Source: Bank Indonesia, processed

Banks' appetite for MSME lending had increased compared to June 20223



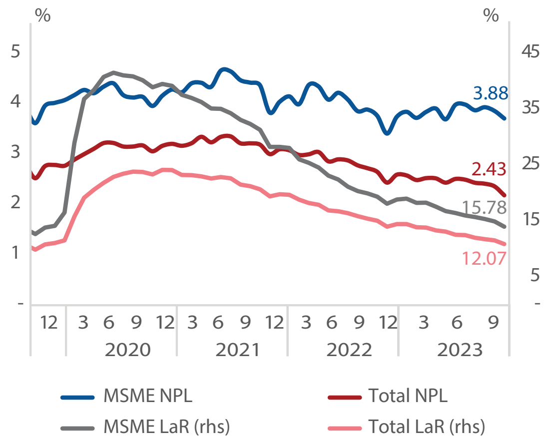
Source: Bank Indonesia, processed

MSME loans grew at a slower pace



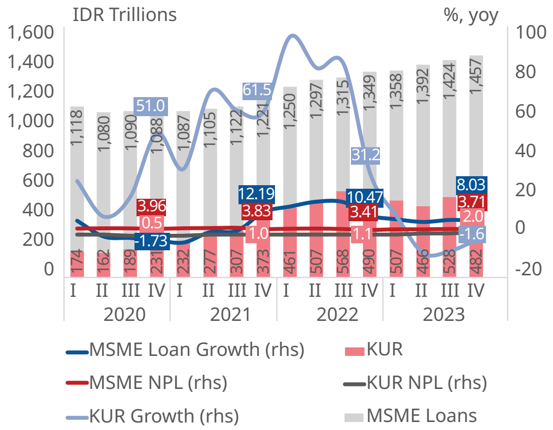
Source: Bank Indonesia, processed

MSME credit risk was maintained



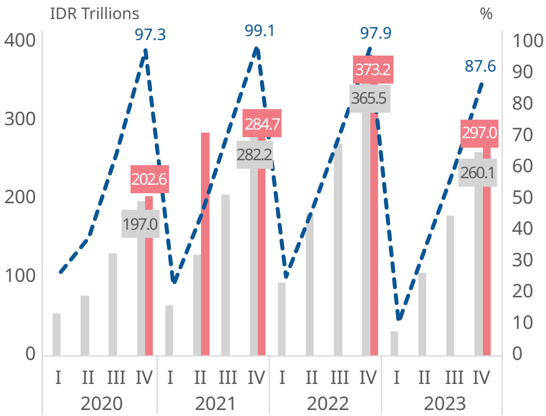
Source: Bank Indonesia, processed

Growth of People's Business Loan (KUR) in 2023 accompanied by maintained NPL



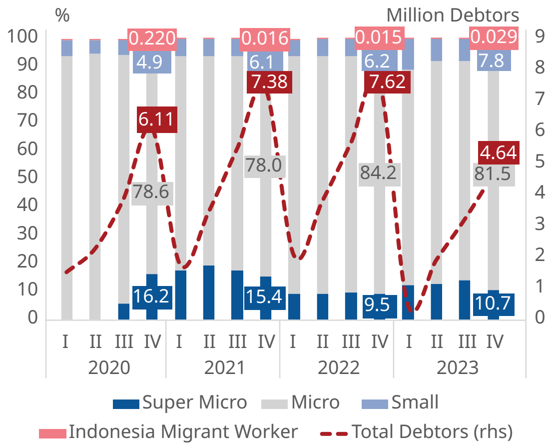
Source: Bank Indonesia and Coordinating Ministry for Economic Affairs, processed

KUR realisation in 2023 reached 87.6% of the target



Source: Coordinating Ministry for Economic Affairs, processed

The micro scale loans accounted for the largest share of KUR Loans



Source: Coordinating Ministry for Economic Affairs, processed

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