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TECHNICAL ASSISTANCE REPORT—FINANCIAL SOUNDNESS INDICATORS STATISTICS MISSION

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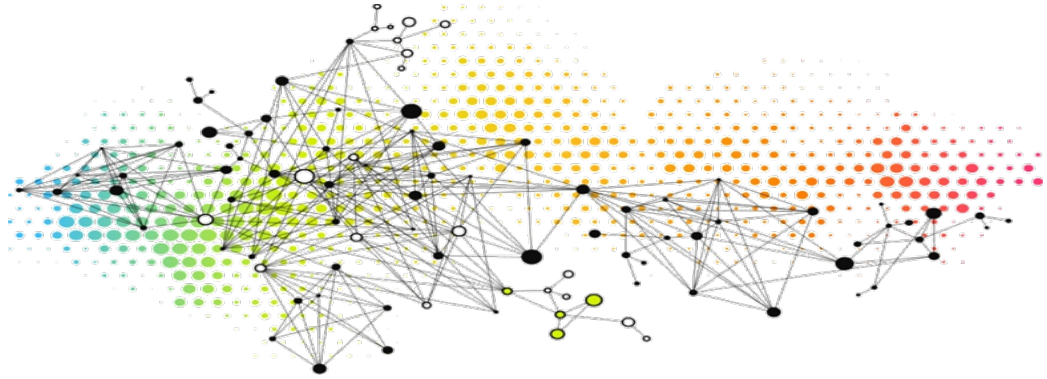

INDONESIA

NOVEMBER 2021

TECHNICAL ASSISTANCE REPORT ON THE FINANCIAL SOUNDNESS INDICATORS MISSION (JUNE 2–11, 2021)

Prepared by Mahmut Kutlukaya

CONTENTS

Glossary

2019 FSIs Guide	*Financial Soundness Indicators Compilation Guide - 2019*
APD	IMF's Asia & Pacific Department
BCBS	Basel Committee on Banking Supervision
BI	Bank Indonesia
BPD	Regional development banks - Bank Pembangunan Daerah
BPR	Rural banks - Bank Perkreditan Rakyat
CBBA	Commercial banks based on business activities
CBCSDI	Cross-border, Cross-sector, Domestically Incorporated consolidation basis
CDM	Concentration and Distribution Measures
CET-1	Common equity Tier-1
DL	Domestic location basis
DSAK	Indonesian Financial Accounting Standards Board - Dewan Standar Akuntansi Keuangan
D-SIBs	Domestic systemically important banks
DTs	Deposit taker
FAS	Financial Access Survey
FBBs	Foreign bank branches
FSI-SR	Sectoral financial statements and memorandum series report forms (new)
FSIs	Financial soundness indicator
FSIC	Institutional coverage report form (new)
FSM	Metadata template (new)
FX	Foreign exchange
IASB	International Accounting Standards Board
IDR	Indonesian Rupiah
IFRSs	International Financial Reporting Standards
IMF	International Monetary Fund
LCR	Liquidity coverage ratio
MFIs	Micro finance institutions
NPLs	Nonperforming loans
NSFR	Net stable funding ratio
OCI	Other comprehensive income
OFCs	Other financial corporations
OJK	Indonesia Financial Services Authority - Otoritas Jasa Keuangan
ROA	Return on assets
ROE	Return on equity
RWA	Risk-weighted asset
SNA	System of National Accounts
STA	IMF's Statistics Department
TA	Technical assistance

SUMMARY OF MISSION OUTCOMES AND PRIORITY RECOMMENDATIONS

1. **The International Monetary Fund's (IMF's) Statistics Department (STA) provided technical assistance (TA) on financial soundness indicators (FSI) to the Indonesia Financial Services Authority (Otoritas Jasa Keuangan - OJK) during June 2-11, 2021**. The mission was conducted remotely via video conferences due to travel restrictions because of the COVID-19 pandemic and travel restrictions. The mission worked with the staff of the OJK on the development of FSIs that are in line with the IMF's *FSIs Compilation Guide 2019 (2019 FSIs Guide)*.[1] The mission: (i) reviewed available source data for deposit takers (DTs); (ii) reviewed the framework for compiling new FSIs from available source data; (iii) identified areas for improvement based on the methodology set forth in the *2019 FSIs Guide*; and (iv) reviewed available data for other financial corporations (OFCs) to assess the feasibility of a subsequent mission.

2. **As a result of the mission, the OJK is now in a position to compile quarterly FSIs in line with the *2019 FSIs Guide***. The mission compiled, together with staff of the OJK, 18 core and 12 additional FSIs for DTs, and two additional FSIs on the size of the OFC's subsector from the available source data. The coverage of DTs for the compilation of FSIs includes 109 commercial banks. The FSIs for DTs exclude rural banks, credit unions and credit cooperatives and microfinance institutions.

3. **The mission reviewed and made recommendations aligning the FSIs currently compiled by the OJK to assess consistency with the methodology of the *2019 FSIs Guide*.** Several FSIs need to be updated in order to follow the more prescriptive approach introduced in the *2019 FSIs Guide*. These FSIs include nonperforming loans (NPLs) net of provisions to capital, tier 1 capital to assets, return on equity, liquid assets to total assets and liquid assets to short term liabilities, net open position in foreign exchange to capital, gross asset/liability position to capital, and residential/commercial real estate loans to total loans (Appendix III). Also, the mission compiled new FSIs for DTs, including common equity Tier-1 (CET-1) capital to risk weighted assets, provisions to nonperforming loans, Tier 1 capital to assets (leverage) ratio, liquidity coverage ratio, net stable funding ratio and credit growth to private sector.

4. **A timeframe for reporting FSI data and metadata to the IMF was discussed and agreed on with OJK officials**. As of June 2021, 146 countries' FSI data are disseminated on the IMF's FSI website, allowing for cross-country comparisons and analyses that are useful to policy makers and analysts. The OJK staff may now compile quarterly FSIs for DTs using the workbook developed by the mission in line with the *2019 FSIs Guide*.

[1] The work of the mission was facilitated by the excellent cooperation provided by officials of the OJK. The list of officials met during the mission is in Appendix II.

5. To support progress in the compilation of FSIs in line with the *2019 FSIs Guide*, the mission recommended a detailed action plan with the priority recommendations. **summarized in Table 1.** Further details can be found in the rest of this report.

Table 1. Indonesia: Priority Recommendations

Target Date	Priority Recommendation	Responsible Institutions
November 2021	*Finalize and report to STA for review the new FSI sectoral financial statements (FSI-SR template) for DTs, including the balance sheet, income statement, and memorandum series, with quarterly data beginning from 2012/Q1, semi-annual data beginning from 2011, annual data beginning from 2005, the new FSI institutional coverage (FSIC template) with annual data starting from 2005, and the new FSI metadata (FSM template).*	**OJK**
December 2021	*In coordination with all relevant parties, start regular reporting to STA, for disseminating on the IMF's FSI website, of the new FSI-SR template with quarterly data beginning from 2012/Q1, semi-annual data beginning from 2011, annual data beginning from 2005, and the new FSIC template with annual data starting from 2005. Also report the new FSM template periodically.*	**OJK**

DETAILED ACTION PLAN

6. The Action Plan below includes steps to accomplish milestones as well as the target completion dates. The plan is for technical compilers. Actions are prioritized as high (H), medium (M), low (L), and priority recommendations (PR) identified.

Rec. No.	Priority	Action/Milestone	Target Completion Date
Outcome: A new data set has been compiled and disseminated internally and/or to the public.			
1	*PR*	*Finalize and report to STA for review the new FSI sectoral financial statements (FSI-SR template) for DTs, including the balance sheet, income statement, and memorandum series, with quarterly data beginning from 2012/Q1, semi-annual data beginning from 2011, annual data beginning from 2005,*	*11/30/2021*

Rec. No.	Priority	Action/Milestone	Target Completion Date
		the new FSI institutional coverage (FSIC template) with annual data starting from 2005, and the new FSI metadata (FSM template).	
2	*PR*	*In coordination with all relevant parties, start regular reporting to STA, for disseminating on the IMF's FSI website, of the new FSI-SR template with quarterly data beginning from 2012/Q1, semi-annual data beginning from 2011, annual data beginning from 2005, and the new FSIC template with annual data starting from 2005. Also report the new FSM template periodically.*	*12/31/2021*
3	*H*	*Agree with the Bank Indonesia (BI) and inform STA on which institution will be the main counterparty to report the new FSIs to STA.*	*11/30/2021*
Outcome: Improved periodicity, timeliness, and consistency of data.			
4	*H*	*Compile FSIs using cross-border, cross-sector, domestically incorporated consolidation basis.*	*12/31/2022*
5	*H*	*Compile and report to the IMF the concentration and distribution measures (CDM).*	*06/30/2022*
6	*H*	*Report the deposits with domestic and foreign banks under interbank loans.*	*12/31/2021*
7	*H*	*Report general and other provisions on the liability side as required by the 2019 FSIs Guide.*	*12/31/2021*
8	*H*	*Exclude foreign bank branches from the compilation of Tier-1 capital, total regulatory capital, and risk weighted assets series for the compilation of FSIs.*	*12/31/2021*
9	*H*	*In coordination with the BI, identify the source of the abrupt data change in the supervisory deductions data and update the historical series, as necessary.*	*12/31/2021*
10	*H*	*Estimate total exposure measure for Islamic banks and incorporate this figure into the total exposure measure memorandum series.*	*12/31/2021*

Rec. No.	Priority	Action/Milestone	Target Completion Date
11	H	*Compile loan concentration by economic activity indicator in line with the methodology provided in the 2019 FSIs Guide.*	12/31/2021
12	H	*Update the liquid assets memorandum series in line with the definitions provided in 2019 FSIs Guide.*	12/31/2021
13	H	*Report liquidity coverage ratio and net stable funding ratio.*	12/31/2021
14	H	*Calculate the net open position in foreign exchange to capital in line with the aggregation approach specified in the 2019 FSIs Guide.*	12/31/2021
15	H	*Start reporting the new credit growth to private sector FSI.*	12/31/2021
16	H	*Start reporting underlying series (reference lending rates and reference deposit rates) for the calculation of spread between reference lending and deposit rates.*	12/31/2021
17	H	*Compile residential real estate and commercial real estate loans memorandum series in line with the definitions provided in the 2019 FSIs Guide.*	12/31/2021
18	M	*Update geographical distribution of loans consistent with the classification of the World Economic Outlook.*	12/31/2021
19	M	*Evaluate the size of foreign currency linked loans and foreign currency linked liabilities for the DTs and start collecting data if the size is considered material.*	12/31/2021
20	L	*Report other comprehensive income (OCI) data.*	12/31/2021
21	H	*Report OFC total assets, including the expansion to incorporate total assets of MMFs, ICs and PFs and other OFCs subsectors.*	12/31/2021
22	H	*Report institutional coverage for OFCs.*	12/31/2021

INTRODUCTION

A. Background

7. This was the first STA mission on FSIs for the OJK. Indonesia participated in the *Coordinated Compilation Exercise* that was launched by the IMF in 2004 and has since compiled and regularly reported annual FSI data to STA. An STA visited Jakarta, Indonesia during July 27-August 9, 2011 to provide TA on FSIs to the BI.

8. Indonesia reports 12 core and 12 encouraged FSIs for DTs and 11 encouraged FSIs, including two encouraged FSIs for OFCs for other sectors to STA through ICS. The BI has been the main STA counterparty for the reporting of FSIs on a timely basis, while the DTs and OFCs related FSIs were being compiled by the OJK. With a letter to STA dated March 3, 2021, the OJK requested STA to acknowledge its Group for Integrated Data and Statistics Management (GDST) as a counterparty for the financial sector data in Indonesia.

9. The OJK, established in 2011 by the Law No. 21/2011 on Financial Services Authority, licenses, regulates and supervises the financial services activities in banking, capital markets, and non-bank financial institutions sectors. The BI is responsible for monetary policy and financial stability.

10. The OJK followed the recommendation of the International Accounting Standards Board (IASB) on the application of International Financial Reporting Standard (IFRS) 9 in the light of the coronavirus uncertainty.[2] Also, restructured loans are allowed to be categorized underperforming (standard) category until March 31, 2022. With a share exceeding 20 percent of the total loans, restructured loans may potentially have a large impact on the FSIs, including nonperforming loans, once the relaxation measures are ended.

B. Indonesia's Financial System

11. Indonesia's financial system is comprised of the BI, 109 commercial banks, 1,669 rural banks, 226 deposit taking microfinance institutions, 143 insurance companies (ICs), 219 pension funds (PFs), 262 money market funds (MMFs), and 715 other types of financial corporations. Banks dominate the financial system in Indonesia. As of December 2020, total reported assets of the financial system were IDR 12,078 trillion. Assets of the commercial banks constitute 76 percent of this total.

12. The OJK is the main regulatory and supervisory authority for DTs and OFCs in Indonesia. The OJK is responsible for the regulation and supervision of banks (commercial banks, rural banks), capital markets (securities companies, investment managers, etc.), ICs, PFs, financing institutions, and other financial services institutions (microfinance institutions,

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[2] See https://www.ifrs.org/content/dam/ifrs/supporting-implementation/ifrs-9/ifrs-9-ecl-and-coronavirus.pdf.

guarantee agencies, fintech companies, etc.). The Law No. 21/2011 on Financial Services Authority sets out the functions, responsibilities, and powers of the OJK. The principal purposes of the OJK are to (i) ensure activities in the financial services sector are conducted in an organized, fair, transparent, and accountable manner; (ii) promote growth in the financial system in a sustainable and accountable manner; and (iii) protect consumer and public interests.

13. **The BI is the central bank of Indonesia.** The mission of the BI, among others, is to achieve and maintain price stability through effective monetary policy, to engage in maintaining financial system stability through effective macro-prudential policy, and to engage in enhancing financial market deepening.

14. **DTs in Indonesia are insured by the Indonesia Deposit Insurance Corporation (IDIC).** IDIC insures deposits in the forms of current/checking accounts, time deposits, current/checking accounts, certificate of deposits, and/or other forms of deposits that have similar characteristics, including Shariah-based deposits, with a limit up to IDR 2 billion per depositor per bank.

Table 2. Indonesia: The Financial System in Indonesia (excluding the BI)

Sector	Number of institutions	Total assets (In Trillions of IDR) 31-Dec-20	Total assets (Percent of Nominal GDP)	Percent of Total Financial System Assets
Commercial Banks	**109**	**9,178**	**59.46**	**75.98**
o/w domestically controlled	71	6,681	43.29	55.31
-State-owned banks 1/	4	3,819	24.74	31.61
-Subsidiaries of state-owned banks (Islamic banks)	3	240	1.55	1.98
- Regional development banks	26	764	4.95	6.32
- Private banks	38	1,859	12.05	15.39
o/w foreign controlled	30	2,061	13.35	17.06
o/w branches of foreign banks	8	436	2.82	3.61
Rural banks	**1,669**	**170**	**1.10**	**1.41**
Deposit taking microfinance institutions	**226**	**1**	**0.01**	**0.01**
Insurance companies	**143**	**783**	**5.07**	**6.48**
o/w life insurance	59	581	3.76	4.81
o/w nonlife insurance, reinsurance	84	202	1.31	1.67
Pension funds	**219**	**317**	**2.05**	**2.62**
Money Market Funds	**262**	**95**	**0.61**	**0.78**
Other financial institutions	**715**	**1,536**	**9.95**	**12.72**
Other insurance	5	672	4.35	5.56
Leasing companies	176	456	2.95	3.78
Specialized financing institutions	120	256	1.66	2.12
Infrastructure financing	2	116	0.75	0.96

Venture capital	61	19	0.13	0.16
Insurance brokers	160	9	0.06	0.08
Reinsurance brokers	42	5	0.03	0.04
Peer to peer lending	149	4	0.02	0.03

Source: Indonesia Financial Services Authority - Otoritas Jasa Keuangan.
1/ Excluding subsidiaries of state-owned banks.

15. The DTs sector comprises commercial banks, rural banks, microfinance institutions, credit unions and credit cooperatives:

- Commercial banks are licensed by the OJK for mobilizing funds from the public in the form of deposits and channeling them to the public in the form of credit and/or other forms. In accordance with the Law No. 7/1992 concerning banking as amended by Law No. 10/1998, all banks in Indonesia accept deposits. The commercial banks have sizeable overseas activities. Cross-jurisdictional claims and cross-jurisdictional liabilities account for 3.04 percent and 8.92 percent of total claims and total liabilities respectively.

- There are 26 regional development banks (Bank Pembangunan Daerah - BPD) operating in Indonesia. BPDs are established by the local provincial government with the purpose to boost regional development and providing financial services. BPDs are subject to the same rules and regulations enforced for the commercial banks.

- Rural banks (Bank Perkreditan Rakyat/BPR) have limited scope of banking activities compared to commercial bank. Activities of rural banks are specified in the Law No. 7/1992 as amended by the Law Number 10/1998 concerning Banking. However, in general, the regulations for rural banks encompass prudential aspects, including institutional and licensing requirements, accounting and reporting standards, and products and activities. Regulatory framework and reporting requirements for rural banks are simplified compared to commercial banks. Rural banks are excluded from market risk and legal risk related requirements. These banks are not connected to the payment and clearing system and they are restricted in the scope of their operations (i.e., lending in foreign currency, equity participation, opening new branches, etc.).

- The regulation framework for microfinance institutions (MFIs) is similar to banks with a simpler approach. MFIs are regulated and supervised by the Non-bank Financial Institution Directorate of the OJK. The regulation for MFI encompasses the prudential aspect, institutional and licensing, accounting, and reporting standards, and product and activities. The share of MFIs in the total financial system assets is negligible at around 0.01 percent.

- Islamic banks provide financial services in accordance with Shariah principles. As of December 2020, there are 14 Islamic commercial banks and 163 Islamic rural banks operating in Indonesia.[3] Total assets of Shariah compliant banks are IDR 399.8 trillion, 4.3 percent of the total assets of the commercial banks. Islamic rural banks constitute less than 10 percent of the rural banks' assets.

- According to the latest data reported to the IMF's Financial Access Survey, more than 12,000 credit unions and credit cooperatives were operating in Indonesia as of 2014.[4] Credit unions and credit cooperatives are owned and controlled by their members. By opening a deposit account at a credit union, an individual becomes a member—and partial owner—of the credit union, participating in its equity. The OJK does not collect data on the number and size of the credit unions and credit cooperatives.

16. Currently there are no DTs in receivership or liquidation in Indonesia. The *2019 FSIs Guide* recommends including DTs in distress if they hold significant positions and to compile FSIs both including and excluding these DTs.

17. The OFCs subsector includes ICs, PFs, MMFs[5] and other types of financial institutions.

- Insurance corporations provide financial benefits to policyholders through risk-sharing and risk-transfer contracts. As of December 2020, there were 59 life insurance, 84 non-life insurance and reinsurance companies operating in Indonesia. Insurance companies constitute 6.5 percent of the financial system assets.
- The pension funds subsector consists of autonomous pension funds that are separate funds (i.e., separate institutional units) established for purposes of providing incomes on retirement for specific groups of employees which are organized, and directed, by private or public employers or jointly by the employers and their employees. There are 219 pension funds operating in Indonesia. The total size of the pension funds is relatively small constituting 2.6 percent of the financial system assets.
- Other financial intermediaries and financial auxiliaries consist of institutions such as leasing companies, brokers, and venture capital and infrastructure financing companies. Other financial intermediaries and financial auxiliaries constitute around 12.7 percent of the financial system. There are also mandatory insurance and social insurance companies operating in Indonesia, which do not function like insurers by constituting reserves and charging premiums proportional to the cost of the service provided. Therefore, they are not included in the ICs subsector.

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[3] Three government-controlled Islamic commercial banks (ICB) merged on Feb 1, 2021 into one ICB (PT Bank Syariah Indonesia). Hence, there are 12 ICBs operating in Indonesia since Feb 2021.

[4] The data were not provided after 2014.

[5] Money market funds (MMFs) are collective investment schemes that raise funds by issuing shares or units to the public. For an investment fund to be recognized as an MMF, there needs to be (1) a certain degree of capital certainty (reliable store of value); and (2) the possibility to withdraw funds immediately or on short notice. If the conditions above are not met, the institution is not classified as an MMF but as a non-MMF investment fund.

DETAILED TECHNICAL ASSESSMENT AND RECOMMENDATIONS

A. Consolidation Basis and Institutional Coverage

18. FSIs for DTs are compiled using unconsolidated data. This approach covers resident domestically controlled and foreign controlled DTs, with their domestic and overseas branches. The FSIs data also include the branches in Indonesia of DTs that are incorporated abroad. However, foreign deposit taking and foreign and domestic non-deposit taking financial subsidiaries of domestically incorporated DTs are excluded from the reporting sample. Also, intra-group adjustments are not undertaken. Given the size and complexity of the DTs sector, the mission recommended the OJK to compile the FSIs on a "cross-border, cross-sector, domestically incorporated" (CBCSDI) basis.

19. The *2019 FSIs Guide* recommends that DT's data be compiled on a (CBCSDI) basis. *Consolidated group reporting* by a resident DT includes coverage of its own activities and those of its branches and financial subsidiaries (except ICs), with any transactions and positions among these entities eliminated on consolidation. Such an approach is an essential element of banking supervision and is adopted to preserve the integrity of capital in DTs by eliminating double counting of capital (double gearing), and to avoid the double counting of income and assets arising from the intra-group activity of DTs. The *2019 FSIs Guide* also recognizes a second option, the "domestic location" DL basis as an alternative, for countries with DTs that have (i) very few or no foreign branches or subsidiaries, and (ii) very few or no cross-sector subsidiaries. The OJK staff noted that while consolidated data are available (i.e., consolidated balance sheet, consolidated income and expense statement and consolidated data for prudential regulations) granularity of consolidated reporting is not sufficient to produce the underlying FSIs data, including the counterparty level data. Also, the OJK does not have data on the number and size of the DT's foreign deposit taking or non-deposit taking financial subsidiaries.

20. FSIs for DTs cover 109 domestically incorporated commercial banks, including foreign bank branches. The remainder of the subsector that is not covered includes rural banks, MFIs, and credit unions and credit cooperatives. The OJK staff mentioned that the number of the rural banks has been decreasing in the recent years and the size of the MFSs is negligible. Rural banks and MFIs that meet the definition of DTs are not included in the FSIs compilation due to their relatively small asset size (1.41 percent and 0.01 percent of the total assets of the financial system, respectively). The mission advised the OJK staff to continue closely monitoring trends in the size of the rural banks and consider covering them in the FSIs should their significance increase. The mission also highlighted the importance of collecting data on the number and size of the credit unions and credit cooperatives, in order to comprehensively assess financial stability risks.

21. Recommendation:

- *The OJK to compile FSIs on a CBCSDI consolidation basis.*

B. Accounting and Regulatory Frameworks Underlying the FSI Data

22. Pursuant to BI Regulation No. 8/12/PBI/2006 on Commercial Banks' Periodic Reports, banks are required to submit reports through the integrated reporting system of the BI.[6] The BI Regulation No 21/9/PBI/2019 on Integrated Commercial Bank Reporting replaced the above regulation and is effective as of June 2021. Also, the OJK Regulation No. 12/POJK.03/2019 on Commercial Bank Reporting and the OJK Regulation No. 63/POJK.03/2020 on Commercial Bank Reporting require commercial banks to submit reports as requested by the OJK.

23. Financial Accounting Standards Board (Dewan Standar Akuntansi Keuangan - DSAK) under the Indonesian Institute of Accountants (Ikatan Akuntan Indonesia - IAI) sets the accounting standards in Indonesia. Pursuant to the Law No. 40/2007 concerning limited liability company, both public and private companies must comply with accounting standards issued by the DSAK-IAI. Indonesia National Accounting Standards (SAK) are adopted from the IFRS. Indonesia's approach to the IFRS implementation is to maintain one-year difference with the IFRS as issued by the IASB. As of January 2020, Indonesia started implementing the IFRS 9 standard.

24. Rural banks apply Indonesian Accounting Standard for Non-Publicly Accountable Entities set by DSAK-IAI. The DSAK-IAI has also issued Exposure Draft of Indonesian Accounting Standard Private Entities which refers to IFRS for small and medium size enterprises and will replace Indonesian Accounting Standard for Non-Publicly Accountable Entities.

25. Indonesia implements the IFRS 9 and a prudential asset classification and provisioning regulation simultaneously.[7] The OJK Regulation No 40/POJK.03/2019 on Quality Assessment of Asset for Commercial Banks that came into effect on January 1, 2020 sets the asset classification rules for commercial banks. Credit quality is determined based on business prospects, debtor performance, and ability to pay. Commercial banks are required to set aside a

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[6] Other relevant regulations include BI Regulation No 10/40/PBI/2008 on Commercial Banks' Monthly Reports, BI Regulation No 13/8/PBI/2011 on Commercial Banks' Daily Reports, BI Regulation No 14/12/PBI/2012 on Commercial Banks' Head Offices Reports, and BI Regulation No 15/4/PBI/2013 on Monetary Stability and Financial System of Sharia Commercial Banks and Sharia Business Units Monthly Reports.

[7] General and specific provisions should be set aside based on the maximum requirement introduced by IFRS 9 and the prudential provisioning regulation. The OJK staff noted that the average provisioning requirement under IFRS 9 is around 60 percent higher compared to that of the prudential regulation. Should IFRS 9 provisions fall short of the prudential requirements, the banks are required to deduct the difference from Tier-1 capital.

minimum provisioning rate of 1 percent and 5 percent for assets under 'Standard' and 'Special Mention' categories respectively.

26. Loans are classified as nonperforming when one or more contractual payments of interest or principal are past due for 90 days or more. Delay on payment (90 days rule) is only one of the criteria in classifying a loan or other assets as NPLs or nonperforming assets. Classification of assets is based on business prospects, performance of the debtors, and repayment capability. NPLs must be classified in accordance with the "Substandard", "Doubtful" and "Loss" categories[8]. Minimum specific provisioning requirements of 15, 50 and 100 percent need to be set aside for "Substandard", "Doubtful", and "Loss" categories respectively.

27. Valuation of financial assets follow national implementation of IFRS 9. The accounting principles for the recognition and measurement of financial assets and liabilities discussed in the *2019 FSIs Guide* follow IFRS 9, with valuation corresponding to the IFRS concept of measurement.

28. The Indonesian risk-based capital framework applies to all commercial banks. However, as discussed in the following paragraphs some requirements apply to a smaller group of banks. Indonesia has been implementing the Basel-III standards for the definition of capital, minimum capital requirements, capital buffers, leverage ratio and liquidity requirements (i.e. liquidity coverage ratio and net stable funding ratio).

29. In line with the deferral of Basel III implementation by the Basel Committee on Banking Supervision (BCBS) to increase operational capacity of banks and supervisors to respond to Covid-19, Indonesia has not started implementing the Basel III standards finalized in December 2017. These standards include revised standardized approach for credit risk, revised operational risk framework and revised market risk framework. The OJK is planning to start implementation in 2023.

30. The OJK published Regulation No. 11/POJK.03/2016 to implement Basel III capital adequacy framework. Indonesia has been implementing the minimum capital requirements based on CET-1, Tier 1, and total capital ratios. The Basel framework does not apply to rural banks. Banks are required to satisfy a minimum capital adequacy of 4.5 percent, 6 percent, and 8 percent for CET-1, Tier-1 and total regulatory capital, respectively. Additionally, banks are required to satisfy minimum capital requirements based on their risk profiles, both individually and on a consolidated basis (Table 3). In accordance with the OJK Regulation No. 5/POJK.03/2015 on Minimum Capital Requirement and Fulfillment of Minimum Core Capital for Rural Banks, rural banks are obliged to maintain capital adequacy ratio at least 12 percent of risk weighted assets (RWAs). The regulatory regime followed by Islamic banks is similar to the Basel framework. Where there are differences, due to the unique characteristics of Islamic banks

[8] Further details of these categories can be found in the metadata page for Indonesia on the IMF's FSIs website: https://data.imf.org/regular.aspx?key=61404865

(e.g., profit-sharing investment accounts), the OJK follows the standards set by the Islamic Financial Services Board.

Table 3. Minimum Capital Requirements Based on Risk Profile

Risk profile	Minimum total capital requirement
Level-1	8 percent
Level-2	9 - 10 percent
Level-3	10 - 11 percent
Level-4 and Level 5	11 – 14 percent

31. Commercial banks implement standardized approaches under Basel-II for the calculation of risk weighted assets. All commercial banks use the standardized approach for credit risk and market risk, and the basic indicators approach for operational risk. Banks are not using modeling approaches for the calculation of risk weighted assets (i.e., internal ratings-based approach for credit risk, value at risk approach for market risk, and advanced measurement approach for operational risk).

32. Indonesia has completed a Regulatory Consistency Assessment Program (RCAP)[9] **for risk-based capital standards in 2016.** Accordingly, risk-based capital standards were found to be largely compliant with the Basel standards. The credit risk component was considered materially non-compliant due to (i) a zero-risk weight assignment for all claims against the Indonesian government and the BI, regardless of the currency in which they are denominated or funded,[10] and (ii) the 50 percent risk weight applied to certain loans to employees and pensioners of state-owned enterprises.[11] Definition of regulatory capital (CET-1, Tier-1, Tier-2, supervisory deductions) follows Basel-III definition.

33. Foreign bank branches (FBBs) are subject to Tier-1 and total regulatory capital requirements. Tier-1 capital of the FBBs include current year profit and wholesale funds that meet certain criteria and Tier-2 capital include provisions up to 1.25 percent of risk weighted assets.

34. The OJK implements a categorization approach, Commercial Banks Based on Business Activities (CBBA), to differentiate prudential regulatory requirements and scope of banking activities across banks. Banks are assigned to one of four categories according to the level of Tier 1 capital (Table 4). The OJK has issued the Regulation No. 12/POJK.03/2020 concerning Consolidation of Commercial Banks aimed to strengthen the structure, resilience and

[9] The Basel Committee established a comprehensive Regulatory Consistency Assessment Programme (RCAP) in 2012 to monitor and assess the adoption and implementation of its standards. RCAP reports can be accessed here: https://www.bis.org/bcbs/implementation/rcap_jurisdictional.htm?m=3%7C14%7C656%7C60

[10] The Basel framework allows a zero-risk weight to be applied provided that these exposures are denominated and funded in domestic currency.

[11] Basel framework requires a 75 percent risk weight.

competitiveness of the banking industry. Through that regulation, commercial banks are required to have at least IDR 3 Trillion of Tier 1 capital no later than December 31, 2022. Banks are allowed to meet this requirement gradually: (i) before December 31, 2020, banks must have at least IDR 1 Trillion of Tier 1 Capital, (ii) before December 31, 2021, banks must have at least IDR 2 Trillion of Tier 1 Capital.

Table 4. Commercial Banks Based on Business Activities Framework

Commercial Banks Based on Business Activities	Tier 1 capital
CBBA 1	Tier 1 less than IDR 1 trillion
CBBA 2	Tier 1 between IDR 1 trillion and IDR 5 trillion
CBBA 3	Tier 1 between IDR 5 trillion and IDR 30 trillion
CBBA 4	Tier 1 from IDR 30 trillion above

35. In addition to the minimum capital requirements and in line with the implementation of Basel-III, banks are also required to maintain capital buffers as follows:

i. A capital conservation buffer requirement of 2.5 percent of RWAs. The capital conservation buffer only applies to CBBA 3 and CBBA 4 banks. Due to a relaxation measure for COVID-19, the capital conservation buffer imposed is 0 percent until March 31, 2022.

ii. A countercyclical capital buffer requirement, as a buffer to anticipate loss against an excessive credit growth which may potentially disturb the financial system stability, is implemented ranging from 0 percent - 2.5 percent of RWAs. Currently, the countercyclical buffer is set to 0 percent.

iii. A capital buffer for Domestic Systemically Important Banks (D-SIBs) ranging from 1 percent - 2.5 percent of RWAs. D-SIBs are classified into four groups with different capital surcharge requirements (Table 5). There are currently 14 D-SIBs in Indonesia.

Table 5. D-SIB Capital Surcharge

Buffer	Buffer Requirement Percent
Bucket 1	1
Bucket 2	1.5
Bucket 3	2
Bucket 4	2.5

36. The OJK Regulation No. 31/POJK.03/2019 on Leverage Ratio Requirement for Commercial Banks require a 3 percent minimum leverage ratio to be maintained by commercial banks. The leverage ratio is defined as Tier 1 capital/Total exposure measure as defined in Basel III. Total exposure consists of all balance sheet assets and off-balance sheet exposures. Leverage ratio reporting to the OJK started as of 2020Q4. Leverage ratio regulation is not implemented for the Islamic banks.

37. Large exposures are defined as the sum of all exposure values of a DT to a counterparty or to a group of connected counterparties, if it is equal to or above 10 percent of the DT's Tier-1 capital. The OJK implemented the large exposures Basel standard (the supervisory framework for measuring and controlling large exposures—April 2014) via the regulation No. 32/POJK.03/2018 starting from 2019. Large exposures framework applies to all conventional commercial banks including foreign banks. Islamic banks are excluded. The OJK is working on a draft to implement large exposures framework for Islamic banks.

38. The OJK has implemented the Basel-III liquidity coverage ratio and net stable funding ratio standards. The Indonesian framework for liquidity coverage ratio[12] (LCR) and net stable funding ratio[13] (NSFR) apply to CBBA 3, CBBA 4, and foreign banks.[14] Islamic banks are excluded from LCR and NSFR prudential measures. Indonesia is assessed as compliant with the LCR and NSFR Basel standards in the RCAPs conducted in 2016 and 2020, respectively. Banks are subjected to 100 percent minimum LCR and NSFR requirements.

39. In addition to the LCR and NSFR ratios, commercial banks in Indonesia are required to report two liquidity ratios, namely, liquid assets to non-core deposit ratio and liquid assets to third party funds ratio. For the purpose of these indicators, liquid assets are defined as cash, placements in the central bank (excluding reserve requirements, macroprudential intermediation ratio requirement and macroprudential liquidity buffer requirement) and government bonds in domestic and foreign currency.

40. In accordance with the BI Regulation No. 7/37/PBI/2005, commercial banks are required to manage and maintain the net open position in foreign exchange ratio. Net open position in foreign exchange ratio (both on balance sheet and total ratios) at the end of each working day should be no more than 20 percent of the capital (Tier 1 + Tier 2 capital). The overall net open position is the sum of the absolute values of the (i) the net difference between assets and liabilities recorded on balance sheet for all foreign currencies; and (ii) the net

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[12] Adopted through the regulation No. POJK No. 42/POJK.03/2015.

[13] Adopted through regulation No. POJK No 50/POJK.03/2017.

[14] The foreign bank category refers to (i) branch offices of banks domiciled overseas; (ii) commercial banks in the form of an Indonesian legal entity with more than 50 percent of their shares owned by foreign citizens and/or foreign legal entities, both individually or jointly; and (iii) banks that are less than 50 percent owned, either individually or jointly, by foreign citizens and/or foreign legal entities but are controlled by these foreign citizens and/or foreign legal entities.

difference between claims and liabilities, comprising both commitments and contingencies, recorded in off balance sheet accounts for all foreign currencies, all expressed in Rupiahs.

C. Source Data

41. The OJK receives source data from two different sources. Commercial banks' unconsolidated monthly reports, including balance sheets and income statements, are collected through the BI's Commercial Bank Integrated Reporting System (Table 6)..[15] In addition, the OJK directly collects prudential reports on an unconsolidated and consolidated basis. Islamic banks' data are mapped to commercial banks data by an automated system. The mapping follows the approach provided in Annex 7.4 of the *2019 FSIs Guide*.

Table 6. Source Data

	Collection	Compilation and processing
Commercial banks' monthly reports (Balance Sheet & Income Statement).	Bank Indonesia – Data through Commercial Bank Integrated Reporting System.	OJK – Department of Bank Licensing and Banking Information.
Commercial banks' micro prudential reports (e.g., Regulatory Capital, LCR, NSFR).	OJK – Department of Bank Licensing and Banking Information.	
Rural Banks (all reports).	OJK – Department of Bank Licensing and Banking Information.	

42. Operational and technical validations on the data are conducted automatically by the IT system. Additionally, responsible departments check the data for validity and consistency. Departments' responsibilities for Coordinated Integrated Statistics Database are the following:

- **Integrated Statistics Database:** Integrated Data Management and Statistics Group (GDST).
- **Banking Data:** Banking Information Directorate, under Banking Licensing and Information Department.
- **Capital Markets Data:** Capital Market Statistics and Information Directorate, under Capital Market Supervision Department**.**
- **OFC's Data:** Non-Bank Financial Industry Statistics and Information Directorate, under Non-Bank Financial Industry Supervision Department**.**

43. Data used in the compilation of FSIs are reported on a monthly basis. Monthly reports are due within 30 days of the end of the reporting period. The FSIs are reported to the IMF on a quarterly basis. The OJK does not plan to start monthly reporting to STA.

[15] The consolidated data collected through the Commercial Bank Integrated Reporting System cover highly aggregated balance sheet and income statement information on a quarterly basis.

D. Compilation Framework

44. **Indonesia is a timely reporter of FSIs.** The BI has been the main STA counterparty for the reporting of FSIs. The FSIs related to DTs and OFCs were being compiled by the OJK and shared with the BI for reporting to STA. With a letter dated March 3, 2021, the OJK requested STA to acknowledge OJK's GDST as the data-producing agent for the financial sector data in Indonesia. The mission informed the OJK staff that the Indonesian authorities need to agree on the main counterparty to report the new FSIs to STA.

45. **The mission developed compilation spreadsheets to derive FSIs from source data (aggregated income statement, balance sheet, and other supervisory series) for DTs**. This process involved mapping of historical data that were reported to the IMF to the FSI-SR reporting forms. Also, for the new series that are required with the implementation of the *2019 FSIs Guide*, the mission discussed the mapping of source data to the FSI-SR report forms. The mapping of the income and expense statement, balance sheet, and supervisory data was conducted based on the methodology of the *2019 FSIs Guide*. The compilation spreadsheets were provided to the OJK which will ensure a smooth migration for the implementation of the new FSI methodology.

46. **The mission assisted the OJK in the compilation of 18 core and 12 additional FSIs for DTs and two additional FSIs relating to the size of OFCs subsectors**. The main differences between the existing FSIs compiled by the OJK and those developed during the mission stem from compilation methodologies. The FSIs compiled by the mission were based on the recommended compilation methodology of the *2019 FSIs Guide*.

44. The mission also presented the Concentration and Distribution Measure (CDM) tool to the OJK staff. The *2019 FSIs Guide* introduced CDMs for selected FSIs to provide critical information about financial system vulnerabilities not directly captured by aggregate data. The CDM tool aims to provide standard measures that can provide information on tail risks, concentrations, and variations in distributions over time. The CDM tool can be downloaded from the IMF's FSIs website.[16]. The use of the CDM tool is especially important for Indonesia given the considerable variation across banks which may cause sectoral aggregates to be unrepresentative for the whole banking system.

47. **Recommendations:**

- *The OJK to compile and report to the IMF the CDM indicators.*
- *The OJK to agree with the BI and inform STA on which institution will be the main counterparty to report the new FSIs to STA*.

[16] Available at https://www.imf.org/-/media/Files/Data/2019/cdm-tool.ashx.

Income Statement

48. Commercial banks are allowed to accrue interest on NPLs in line with the IFRS 9[17]. However, several banks apply a more prudential approach where accrued interest on NPLs is recorded as off-balance sheet in contingencies and recognized as interest income using the approach on a cash basis. The *2019 FSIs Guide* recommends that interest accrued on non-performing assets be credited to the provisions for accrual of interest on non-performing assets account rather than income. The provision account is reduced only when interest is actually paid (i.e., cash basis) and the amount is taken into income. The OJK confirmed that the size of accrued interest on NPLs is negligible (around 0.3 percent of accrued interest) and will not have significant effect on the income and expense statement and the respective FSIs.

49. The *2019 FSIs Guide* recommends that countries report other comprehensive income (OCI) as an additional line item in their income and expense statements. Other comprehensive income consists mainly of revenues, expenses, gains, and losses that are excluded from net income in the income statement as well as unrealized gains and losses in financial instruments that are categorized under Fair Value Through Other Comprehensive Income (FVOCI). Other comprehensive income is not included in the monthly report forms. However commercial banks in Indonesia report to the OJK other comprehensive income in their financial reports for quarterly publication. This is in line with the quarterly reporting of the FSIs to STA.

50. Recommendation:

- *The OJK to report other comprehensive income (OCI) data.*

Balance Sheet

51. In line with the recommendation of the *2019 FSIs Guide*, the mission mapped deposits with domestic and foreign banks on the asset side of the balance sheet to interbank loans. This has a significant effect on the structure of the balance sheet and NPL figures. The total amount transferred as of 2021Q1 is IDR 245 trillion.

52. Recommendation:

- *The OJK to report the deposits with domestic and foreign banks under interbank loans.*

53. Consistent with the approach adopted in the *2019 FSIs Guide,* the mission mapped provisions on performing loans and other assets to "General and Other Provisions" under liabilities in the new report forms. Indonesia was covering general provisions as a deduction item under "other assets" on the assets side of the balance sheet. This change increased the total size of the DT's balance sheet by 2.3 percent as of 2021Q1.

[17] Banks recognize interest income according to IFRS 9, implementing the concept of unwinding interest.

54. Th *2019 FSIs Guide* defines specific provisions as provisions for loan losses that are set aside to cover identified NPLs. In Indonesia specific provisions are calculated according to the IFRS 9 lifetime expected losses framework. The IFRS 9 provisioning requirements are around 60 percent larger than that of the prudential regulatory framework. In line with the *2019 FSIs Guide* recommendation, specific provisions are reported on the asset side as a deduction item from gross loans.

55. Recommendation:

- *The OJK to report general and other provisions on the liability side as required by the 2019 FSIs Guide.*

Supervisory series

Regulatory Capital and Risk Weighted Assets (RWA)

56. The capital adequacy ratios are calculated using the Basel-III definition for total regulatory capital and its subcomponents (CET-1, additional Tier 1 and Tier 2). As mentioned in the accounting and regulatory framework section of the report, in addition to domestically incorporated commercial banks, foreign bank branches are also subject to minimum capital requirements. However, the foreign bank branches are subject to a Tier 1 capital and total capital requirement only (i.e., foreign bank branches are not subject to a CET-1 requirement). Accordingly, the reported CET-1 and additional tier 1 capital figures for the DTs sector do not add up to total Tier 1 capital of the DTs (which also incorporates FBBs).

57. While the FBBs constitute around 5 percent of the DTs assets, their reported Tier-1 capital is more than 12 percent of the reported Tier-1 capital of the DTs sector. The regulatory capital rules implemented for the FBBs are not in line with the Basel III standards and the size of the FBBs regulatory capital as defined under the OJK regulations has had the potential to significantly affect the sectoral aggregates (i.e., the capital adequacy of these institutions exceeding 50 percent which is much higher compared to the sectoral average) and hence conceal the financial vulnerabilities in the DTs sector. The CBCSDI consolidation basis also requires exclusion of FBBs from the FSIs reporting.

58. The *2019 FSIs Guide* defines supervisory deductions as those that are not already deducted from the corresponding regulatory capital components. The mission identified an abrupt drop (i.e., to zero) in supervisory deductions in the historical data starting from 2018Q3 that was increasing the regulatory capital to RWAs significantly[18]. The OJK staff is working on identifying the source of the major change in the reporting.

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[18] Supervisory deductions have 209 basis points effect on the regulatory capital to RWA ratio as of 2018Q2 (i.e., the last reporting date for the supervisory deductions).

59. Recommendation:

- *The OJK to exclude FBBs from the compilation of Tier-1 capital, total regulatory capital, and RWA series for the compilation of FSIs.*

- *The OJK, in coordination with the BI, to identify the source of the abrupt data change in the supervisory deductions and update the historical series, as necessary.*

Leverage Ratio

60. The new FSIs methodology recommends calculation of the Tier 1 Capital to Assets ratio based on Basel III leverage measure, for jurisdictions that have implemented Basel III. The OJK produces the total exposure measure in line with the Basel III standard. However, Islamic banks are exempted from the Basel III leverage ratio requirement. So, while the numerator for the Tier 1 Capital to Assets ratio (i.e., Tier 1 capital) is available for all banks, the denominator is produced based on a smaller sample of banks yielding an inconsistent leverage ratio for the sector. In order to prevent inconsistency in the reporting, the mission recommended the OJK staff to produce a total exposure measure for Islamic banks based on available data and incorporate this figure into the total exposure measure. The method for estimating the total exposure measure should be provided in the metadata.

61. Recommendation:

- *The OJK to estimate total exposure measure for Islamic banks and incorporate this figure into the total exposure measure memorandum series.*

Nonperforming loans net of provisions to capital

62. The *2019 FSIs Guide* requires NPLs net of provisions to capital FSI to be calculated by using the total regulatory capital as denominator. This indicator intends to gauge the capacity of bank capital to withstand losses on loans identified as non-performing but not fully provisioned. Indonesia has been reporting this FSI by using total capital and reserves obtained from the balance sheet, as this option was allowed under the *2006 FSIs Guide*. This FSI will be automatically generated by the FSIs template by using total regulatory capital as the denominator.

Loan Concentration by Economic Activity

63. The *2019 FSIs Guide* defines loan concentration by economic activity FSI (a new FSI) as the ratio of DTs' lending to the largest three economic activities, as a proportion of their total gross loans to nonfinancial corporations. Lending by economic activity is based on the UN International Standard Industrial Classification of All Economic Activities, Revision 4 (ISIC Rev.4) at its highest level, which provides a widely accepted structure for the classification of economic activities. Statistics Indonesia (Badan Pusat Statistik/BPS) implements Indonesian

Standard Industrial Classification (Klasifikasi Baku Lapangan Usaha Indonesia (KBLI)) for economic activities which is in line with the ISIC Rev.4.

64. Recommendation:

- *The OJK to compile loan concentration by economic activity indicator in line with the methodology provided in the 2019 FSIs Guide.*

65. The mission presented the annualization method of net income before/after tax and the averaging of total assets and capital and reserves in the computation of return on assets (ROA) and return on equity (ROE). The *2019 FSIs Guide* recommends using net profit before tax for calculation of the ROA and net income after tax for calculating of ROE. Accordingly, ROA is calculated using the annualized net income before tax divided by average total assets, while ROE is calculated using the annualized net income after tax divided by average total equity. In line with the methodology of the *2006 FSIs Guide*, the OJK was reporting the ROE by using annualized net income before tax, which needs to be updated with the implementation of the *2019 FSIs Guide*. The preferred methods for annualization and averaging of quarterly data were presented to the OJK staff as follows (e.g., for 2019):

- Annualizing net income before/after tax reported on a cumulative basis:
  2019Q1_Annualized = (2019Q1)*4;
  2019Q2_Annualized = (2019Q2)*2;
  2019Q3_Annualized = (2019Q3)/3*4;
  2019Q4_Annualized = (2019Q4).

- Averaging total assets and capital:
  2019Q1_Annualized = (2018Q4+2019Q1)/2;
  2019Q2_Annualized = (2018Q4+2019Q1+2019Q2)/3;
  2019Q3_Annualized = (2018Q4+2019Q1+2019Q2 +2019Q3)/4;
  2019Q4_Annualized = (2018Q4+2019Q1+2019Q2+2019Q3+2019Q4)/5.

Liquidity indicators

66. The *2019 FSIs Guide* recommends the LCR and the NSFR ratios to be compiled by the countries implementing the Basel-III liquidity standards. The OJK collects source data for the LCR and the NSFR ratios in line with the Basel-III requirements. As discussed above these ratios are calculated for a subset of commercial banks (i.e., CBBA 3, CBBA 4 and foreign banks).

67. In addition to Basel-III liquidity indicators, countries are expected to report liquid assets to total assets and liquid assets to short-term liabilities FSIs. The *2019 FSIs Guide* recommends the broad definition of liquid assets to be used in the compilation of FSIs which comprises of (i) currency; (ii) deposits and other financial assets that are available either on demand or within three months or less; and (iii) securities that are traded in liquid markets (including repo markets) that can be readily converted into cash, with insignificant risk of change in value under normal business conditions. Indonesia's broad definition of liquid assets cover items such as derivative claims, deferred tax assets and prepaid expenses that do not satisfy the *2019 FSIs Guide's* definition of liquid assets. Also, for the calculation of internal liquidity ratios (i.e., liquid assets to non-core deposit ratio and liquid assets to third party funds ratio), the compilers defined liquid assets as cash, placements in the central bank (excluding reserve requirements, macroprudential intermediation ratio requirement and macroprudential liquidity buffer requirement), and government bonds in domestic and foreign currency. This internal definition is in line with the liquid assets' definition of the *2019 FSIs Guide* and could be reported for compilation of liquidity indicators.

68. The *2019 FSIs Guide* defines short term liabilities as short-term element of DTs' debt liabilities and the net market value of their financial derivatives positions. Short-term liabilities are those that could be withdrawn either on demand or within three months or less. The OJK reports short-term liabilities on a remaining maturity basis.

69. Recommendations:

- *The OJK to update the liquid assets memorandum series in line with the definitions provided in the 2019 FSIs Guide.*
- *The OJK to report liquidity coverage ratio and net stable funding ratio.*

Net open position in foreign currencies

70. The FSI on net open position in foreign exchange to capital can be calculated using either on-balance sheet or on- and off-balance sheet measures, but the latter approach is the preferred approach in the *2019 FSIs Guide*. According to the BI regulation (No. 7/37/PBI/2005), overall net open position is the sum of the absolute values of the net difference between assets and liabilities in all foreign currencies recorded on the balance sheet; plus, the net difference between claims and liabilities, comprising both commitments and contingencies, in all foreign currencies recorded in off balance sheet accounts. The *2019 FSIs Guide*, on the other hand, recommends the open position calculation to be made for each foreign currency and gold. The overall net open position is then measured by adding the sum of the net short positions or the sum of the net long positions, whichever is greater, plus the absolute value of the net position in gold. The mission recommended, for the calculation of this FSI, the net open position in foreign exchange series to be updated in line with the *2019 FSIs Guide* methodology.

71. Recommendation:

- *The OJK to calculate the FSI on FX net open position in foreign exchange to capital in line with the aggregation approach specified in the 2019 FSIs Guide.*

Large Exposures

72. *The OJK's large exposures definition is in line with the 2019 FSIs Guide*. The prudential reporting for the large exposures definition in line with the *2019 FSIs Guide* started as of 2020/Q4. Before that large exposures series reported by the OJK included only amounts exceeding 10 percent of the tier-1 capital (i.e., not the total amount of exposures exceeding 10 percent of the tier-1 capital). FSIs reporting after 2020/Q4 includes all exposures exceeding the specified threshold. The mission suggested to the OJK to update the metadata to explain the change in the methodology. Also, the numerator for the FSI needs to be updated in line with the *2019 FSIs Guide* recommendation as Tier-1 capital. Currently, Indonesia reports this indicator by using total regulatory capital as numerator.

Geographical Distribution of Loans to Total Gross Loans

73. In recording the geographic distribution of loans, claims are attributed to economies on the basis of the residency of the entity on which DTs have claims. Residency is based on the concept of economic territory, which is not always based strictly on physical or political borders (see paragraph 2.11 in the *2019 FSIs Guide*). The suggested regional grouping of countries is provided in Annex 8.2 of the *2019 FSIs Guide* which is based on the classification provided in the IMF's *World Economic Outlook*.

74. Recommendation:

- *The OJK to update geographical distribution of loans consistent with the classification of the World Economic Outlook.*

Gross asset/liability position in derivatives to capital

75. The FSI gross asset/liability positions in financial derivatives to capital is intended to gauge the exposure of DTs' asset/liability positions in financial derivatives relative to capital. Capital is measured as the total regulatory capital. Indonesia was using total capital and reserves as the denominator for these FSIs. In line with the prescriptive approach in the *2019 FSIs Guide*, this FSI will be automatically generated by the FSIs template by using total regulatory capital as the denominator.

Foreign-currency-denominated loans to total loans and Foreign-currency-denominated liabilities to total liabilities

76. The *2019 FSIs Guide* recommends foreign-currency-linked instruments to be included in the calculation of foreign currency denominated loans and foreign currency denominated liabilities. Foreign currency linked instruments are those payable/receivable in domestic currency but with the amounts payable/receivable linked to a foreign currency and, therefore, considered to be denominated in foreign currency. The OJK FSIs compilation does not cover foreign currency linked loans and liabilities and current reporting forms are not sufficient for the identification of foreign currency linked amounts.

77. Recommendation:

- *The OJK to evaluate the size of foreign currency linked loans and foreign currency linked liabilities for the DTs and start collecting data if the size is considered material.*

Credit Growth to Private Sector

78. The FSI credit growth to private sector is calculated using the year-over-year growth rate of total credit to the nonfinancial private sector. This new FSI intends to capture emerging systemic risks and can serve as a forward-looking indicator of potential asset quality problems and vulnerabilities in the DT sector. Credit to private sector data provided by the OJK, which is consistent with the *2019 FSIs Guide*, includes gross loans extended by DTs to the nonfinancial private sector, *plus* debt securities issued by private nonfinancial corporations and held by DTs.

79. Recommendation:

- *The OJK to start reporting the new credit growth to private sector FSI.*

Spread between Reference Lending and Deposit Rates

80. Indonesia compiles the FSI spread between reference lending and deposit rates. The *2019 FSIs Guide* requires reporting of the underlying series (i) reference lending rate, and (ii) reference deposit rate. The OJK provided these memorandum series during the mission. This FSI will be automatically generated by the FSIs template (FSI-SR) using the underlying series.

81. Recommendation:

- *The OJK to start reporting underlying series (reference lending rates and reference deposit rates) for the calculation of spread between reference lending and deposit rates.*

Spread between Highest and Lowest Interbank Rates

82. The FSI spread between highest and lowest interbank rates is available for Indonesia. The *2019 FSIs Guide* requires reporting of the underlying series (i) highest interbank rate, and (ii) lowest interbank rate. The mission advised the OJK, in coordination with the BI, to start reporting underlying series (highest interbank rate and lowest interbank rate) for the calculation of spread between highest and lowest interbank rates.

Real estate markets

83. The OJK compiles residential real estate loans to total loans, and commercial real estate loans to total loans FSIs. The OJK defines residential real estate loans as loans extended to households for purchasing houses and apartments. Also, the OJK defines commercial real estate loans as loans extended for constructions and real estate sectors. The *2019 FSIs Guide,* on the other hand, defines residential real estate loans as loans that are collateralized by residential real estate and commercial real estate loans as loans that are collateralized by commercial real estate, loans to construction companies or loans to companies active in the development of real estate. The definitions used by the OJK for the residential real estate and commercial real estate are narrower in scope in comparison to the *2019 FSIs Guide* definitions. The OJK staff confirmed the availability of the data to update these indicators.

84. Recommendation:

- *The OJK to compile residential real estate and commercial real estate loans memorandum series in line with the definitions provided in the 2019 FSIs Guide.*

E. FSIs for OFCs

85. Indonesia has been reporting two FSIs for OFCs, namely, OFC financial assets to total financial assets and OFC financial assets to GDP. The OFCs subsector is comprised of ICs, PFs, MMFs and other types of OFCs. The OFCs subsector currently accounts for 22 percent of the reported assets of the financial system. The mission advised that developments in the OFCs subsector be monitored given the importance of the OFCs subsector for Indonesia.

86. The FSIs OFC financial assets to total financial assets and OFC financial assets to GDP provide metrics to gauge the relative size of the OFCs subsector within the domestic financial system. The *2019 FSIs Guide* recommends similar FSIs for MMFs, ICs and PFs. The OJK staff provided data on the assets for MMFs, ICs and PFs subsectors during the mission based on which the mission compiled these more granular series.

87. The *2019 FSIs Guide* recommends compiling two new FSIs for MMFs, four new FSIs for ICs, and two new FSIs for PFs. The OJK staff confirmed the availability of source data for the compilation of these FSIs starting from 2014/Q3. The OJK is of the view that sectoral financial statements and memorandum series could be compiled by the OJK staff.

88. There are five social insurance and mandatory ICs operating in Indonesia. These include ASABRI (Mandatory insurance for Military Personnel), TASPEN (Mandatory insurance for civil servants), JASA RAHARJA (insurance covering accidents from vehicles and other modes of transportations such as rail, airplane, ship/boats), BPJS Kesehatan (National Health Insurance) and BPJS Ketenagakerjaan (National Worker's Insurance). These companies do not function like conventional ICs (i.e., by constituting reserves and charging premiums proportional to the cost of the service provided). Therefore, they are categorized under "Other OFCs" subsector.

89. Indonesia has not yet reported institutional coverage for OFCs to STA. The new institutional coverage templates (FSIC) require (i) the number of the ICs, split by ownership and their respective total assets, and (ii) the number of other OFCs split by ownership, and their respective total assets to be reported through the FSIC template.

90. Recommendations:

- *The OJK to report OFC total assets, including additional sectorization to incorporate total assets by MMFs, ICs and PFs and other OFCs subsectors.*

- *The OJK to report institutional coverage for OFCs.*

F. FSI Metadata

91. The mission highlighted the need to complement the FSI data with the corresponding metadata. Metadata reporting is important for interpreting the FSIs and to allow for cross-country comparisons. Any deviations from the recommendations of the *2019 FSIs Guide* should be explained in the metadata and updated when necessary. The metadata should contain information on the content and coverage of the FSIs, as well as the accounting conventions and other national guidelines. The mission developed FSI metadata for DTs and for two additional FSIs on the size of OFC subsectors based on the information provided by the authorities. The metadata should be updated whenever changes are observed, for instance, when there are changes to the accounting and regulatory frameworks or to the call report instructions underlying the FSI source data.

92. The understanding of the calculation of key underlying series is important for better interpretation of FSIs. Although the *2019 FSIs Guide* provides guidance on the calculation of the underlying FSI series, the calculation of some data series used by national FSI compilers may not always be fully in line with the *2019 FSIs Guide* due to lack of data. Furthermore, there might be some adjustments to the underlying series for the FSI calculation of FSIs. Appendix IV presents the detailed FSI metadata for DTs for reference. The mission also prepared the FSI metadata Excel file (the FSM file) for reporting together with the FSI data to STA for posting on the IMF's FSI website.

G. FSI Data and Metadata Reporting

93. The OJK aims to regularly report the sectoral FSIs for DTs and OFCs to the IMF with quarterly frequency, to be posted on the IMF's FSI website, upon the OJK management's approval. As discussed earlier, the OJK can compile and report all 18 core and 12 additional FSIs for DTs as well as two additional FSIs on the size of OFC subsectors on a quarterly basis. Underlying data available at the OJK for the calculation of FSIs starts from 2005. The mission introduced to the OJK officials the new institutional coverage template (FSIC template) with information on the (i) number of the reporting DTs and their branches, split by ownership, and their respective total assets, (ii) number of the ICs, split by ownership and their respective total assets, and (iii) number of other OFCs split by ownership, and their respective total assets. The FSIC template should also be reported to the IMF for dissemination.

94. Recommendations:

- *The OJK to finalize and report to STA for review the new FSI sectoral financial statements (FSI-SR template) for DTs, including balance sheets, income statements, and memorandum series, with quarterly data beginning from 2012/Q1, semi-annual data beginning from 2011, annual data beginning from 2005, the new FSI institutional coverage (FSIC template) with annual data starting from 2005, and the new FSI metadata (FSM template).*
- *The OJK, in coordination with all relevant parties, to start regular reporting to STA, for disseminating on the IMF's FSI website, of the new FSI-SR template with quarterly data beginning from 2012/Q1, semi-annual data beginning from 2011, annual data beginning from 2005, and the new FSIC template with annual data starting from 2005. Also report the new FSM template periodically.*

H. Resources, Training, and Technical Cooperation

95. The mission recommended that OJK staff seek to attend regional and HQ training courses on financial sector statistics. STA has in the past regularly delivered courses on both Monetary and Financial Statistics and FSIs at IMF headquarters, and regional trainings centers. Also, recently STA has started delivering remote courses. Details can be found on the webpage of the IMF's Institute for Capacity Development. The mission also provided several training sessions to the OJK staff covering the *2019 FSIs Guide*, analytical use of the FSIs, consolidation approaches, CDM tool and the new FSIs for OFCs.

96. Recommendation:

- *Support OJK officials' efforts to participate in IMF FSI training courses to improve their methodological knowledge and skills in compilation and interpretation of FSIs.*

Appendix I. Indonesia: Financial Soundness Indicators

	Dec-18	Dec-19	Dec-20	Mar-21
Core FSIs				
Regulatory capital to risk-weighted assets	22.89	23.31	23.81	24.05
Tier 1 capital to risk-weighted assets	21.20	21.77	22.16	22.26
Nonperforming loans net of provisions to capital	4.07	4.68	3.78	3.95
Common Equity Tier 1 capital to risk-weighted assets			20.29	20.25
Leverage ratio			12.09	11.97
Nonperforming loans to total gross loans	2.29	2.43	2.64	2.72
Loan concentration by economic activity			57.46	56.81
Provisions to nonperforming loans	57.61	53.29	68.25	67.89
Return on assets	2.51	2.47	1.47	1.78
Return on equity	13.33	12.34	7.07	8.56
Interest margin to gross income	69.75	65.31	60.95	58.69
Noninterest expenses to gross income	48.12	46.30	46.96	40.70
Liquid assets to total assets			23.03	24.09
Liquid assets to short-term liabilities			34.04	35.65
Liquidity coverage ratio			267.91	263.80
Net stable funding ratio			140.57	138.62
Net open position in foreign exchange to capital	1.68	1.59	0.89	1.25
Residential real estate prices (Percentage change/last 12 months)	2.95	1.77	1.43	1.17
Additional FSIs				
Large exposures to capital	0.40	0.45	2.06	1.93
Geographic distribution of total loans	0.00	0.00	0.00	0.00
Geographic distribution of total loans: Domestic economy	98.66	98.51	98.35	98.28
Geographic distribution of total loans: Advanced economies	0.45	0.50	0.56	0.57
Geographic distribution of total loans: Emerging market and developing economies	0.89	1.00	1.09	1.15
Geographic distribution of total loans: Emerging and developing Asia	0.71	0.85	0.95	0.97
Geographic distribution of total loans: Emerging and developing Europe	0.00	0.00	0.00	0.00
Geographic distribution of total loans: Latin America and the Caribbean	0.18	0.14	0.14	0.18
Geographic distribution of total loans: Middle East and Central Asia	0.00	0.00	0.00	0.00
Geographic distribution of total loans: Sub-Saharan Africa	0.00	0.00	0.00	0.00
Gross asset position in financial derivatives to capital	1.71	1.48	2.20	1.45
Gross liability position in financial derivatives to capital	2.02	1.10	1.69	1.35
Trading income to total income	2.66	4.16	6.62	3.50
Personnel expenses to noninterest expenses	41.87	41.71	40.55	44.16
Spread between reference lending and deposit rates (base points)			517.80	556.02
Spread between highest and lowest interbank rates (base points)	185.24	59.47	124.49	125.62
Customer deposits to total (no interbank) loans	98.09	97.12	103.20	104.37
Foreign-currency-denominated loans to total loans	15.04	13.78	12.14	12.39
Foreign-currency-denominated liabilities to total liabilities	20.06	18.99	18.26	18.94
Credit growth to private sector				-2.89

	Dec-18	Dec-19	Dec-20	Mar-21
Other financial corporations				
OFCs' assets to total financial assets: total OFCs	23.00	23.55	22.64	22.66
OFCs' assets to total financial assets: Money Market funds	0.44	0.62	0.78	0.75
OFCs' assets to total financial assets: Insurance Corporations	6.99	7.01	6.49	6.58
OFCs' assets to total financial assets: Pension Funds	2.62	2.65	2.62	2.59
OFCs' assets to gross domestic product: OFCs	16.17	16.59	17.70	17.87
OFCs' assets to gross domestic product: Money Market funds	0.31	0.44	0.61	0.59
OFCs' assets to gross domestic product: Insurance Corporations	4.91	4.93	5.07	5.19
OFCs' assets to gross domestic product: Pension Funds	1.84	1.87	2.05	2.04
Real estate markets				
Commercial real estate prices (Percentage change/last 12 months)	1.52	0.32	0.12	0.45
Residential real estate loans to total gross loans	8.50	8.60	8.18	8.20
Commercial real estate loans to total gross loans	9.11	9.46	8.94	8.79

Source: TA mission
* The FSIs could be subject the further change once the recommendations of this report are fully implemented.

Appendix II. Indonesia Financial Services Authority - Otoritas Jasa Keuangan: Officials Met During the Mission

	Name	Title	Department/Directorate/Group
1	Mr. Rendra Zairuddin Idris	Head of Department	International Department
2	Mr. Irnal Fiscallutfi	Head of Department	Banking Licensing and Information Department
3	Mr. Agus Firmansyah	Head of Department	Integrated Data Management and Statistics Group
4	Ms. Nuraini Yuanita	Director	Bank Supervision Development, Supervision and Crisis Management Development Department
5	Mr. Mohamad Miftah	Director	Banking Research and Regulation Department
6	Ms. Yunorita Pariman	Executive Analyst	Integrated Data Management and Statistics Group
7	Ms. Arasy Jayanti Saputro	Junior Analyst	Integrated Data Management and Statistics Group
8	Mr. Fauzan Al Asyiq	Administrator	Integrated Data Management and Statistics Group
9	Ms. Dian Oktariani	Deputy Director	Banking Licensing and Information Department/Banking Information Directorate
10	Ms. Anggella Aosi Nasution	Head of Subsection	Banking Licensing and Information Department/Banking Information Directorate
11	Mr. Oky Sandi Rumadi Sihombing	Junior Analyst	Banking Licensing and Information Department/Banking Information Directorate
12	Ms. Nursyita Purnami	Junior Analyst	Banking Licensing and Information Department/Banking Information Directorate
13	Mr. Suciadi Ciptono Rahayu	Junior Analyst	Banking Licensing and Information Department/Banking Information Directorate
14	Ms. Juwita Adelina Pasaribu	Junior Analyst	Banking Licensing and Information Department/Banking Information Directorate
15	Mr. Hendra Gunawan	Junior Analyst	Banking Licensing and Information Department/Banking Information Directorate
16	Mr. Fransiskus Henry Cahyadi	Junior Analyst	Banking Licensing and Information Department/Banking Information Directorate
17	Mr. Rorizki Aldila Hutagalung	Staff	Banking Licensing and Information Department/Banking Information Directorate
18	Mr. Urip Fanto	Administrator	Banking Licensing and Information Department/Banking Information Directorate
19	Mr. Tony	Deputy Director	Banking Research and Regulation Department/Research Directorate
20	Ms. Patricia	Deputy Director	Banking Research and Regulation Department/Commercial Bank Regulation Directorate
21	Mr. Riki Ferdian	Senior Analyst	Banking Research and Regulation Department/Commercial Bank Regulation Directorate
22	Ms. Diar Lasrumondang Veronika Putri	Analyst	Banking Research and Regulation Department/Research Directorate
23	Ms. Widya Octavia Dian Ayu Permata	Subdivision Head	Banking Research and Regulation Department/Commercial Bank Regulation Directorate
24	Mr. Rolamjaya Hotmartua	Junior Analyst	Banking Research and Regulation Department/Research Directorate

	Name	Title	Department/Directorate/Group
25	Mr. Muhammad Radhi	Junior Analyst	Banking Research and Regulation Department/Research Directorate
26	Ms. Laras Ayu	Junior Analyst	Banking Research and Regulation Department/Research Directorate
27	Ms. Nila Khusnika Sari	Junior Analyst	Banking Research and Regulation Department/Research Directorate
28	Ms. Dewi Ayuningsih	Deputy Director	Supervision and Crisis Management Development Department/Industry Profile Analysis and Crisis Management Protocol Directorate
29	Mr. Vidharta Indra Surya	Executive Analyst	Supervision and Crisis Management Development Department/Industry Profile Analysis and Crisis Management Protocol Directorate
30	Mr. Budi Azhari	Senior Analyst	Supervision and Crisis Management Development Department/Industry Profile Analysis and Crisis Management Protocol Directorate
31	Ms. Listiyani Wulandari	Subdivision Head	Supervision and Crisis Management Development Department/Bank Supervision Development Directorate
32	Ms. Vicha Angela Arisandhi	Junior Analyst	Supervision and Crisis Management Development Department/Industry Profile Analysis and Crisis Management Protocol Directorate
33	Mr. Sendy	Junior Analyst	Supervision and Crisis Management Development Department/Industry Profile Analysis and Crisis Management Protocol Directorate
34	Mr. Asep Suwondo	Director	Non-Bank Financial Industry Statistics and Information Directorate
35	Mr. Arie Munandar	Deputy Director	Non-Bank Financial Industry Statistics and Information Directorate/Non-Bank Financial Industry Statistics and Information Deputy Directorate 1
36	Mr. Pebriantho Pardamean Sipahutar	Head Division	Non-Bank Financial Industry Statistics and Information Directorate/Insurance/Health Care Social Security Agency Statistics and Information Division
37	Mr. Ahmad Aripin	Head Division	Non-Bank Financial Industry Statistics and Information Directorate/Insurance/Employment Social Security Agency Statistics and Information Division
38	Ms. Devi Libyanda	Staff	Non-Bank Financial Industry Statistics and Information Directorate/Insurance/Health Care Social Security Agency Statistics and Information Division
39	Ms. Oksidea Riveta	Staff	Non-Bank Financial Industry Statistics and Information Directorate/Insurance/Health Care Social Security Agency Statistics and Information Division
40	Mr. Angga Surya Saputra	Subdivision Head	Non-Bank Financial Industry Statistics and Information Directorate/Insurance/Health Care Social Security Agency Statistics and Information Division
41	Mr. Arya Aditiawanto S	Staff	Non-Bank Financial Industry Statistics and Information Directorate/Insurance/Health Care Social Security Agency Statistics and Information Division
42	Ms. Luci Irawati	Executive Analyst	International Department/Multilateral Relations Directorate
43	Mr. Adityo Pamudji	Executive Analyst	International Department/Multilateral Relations Directorate

	Name	Title	Department/Directorate/Group
44	Mr. Dedi Setiawan	Senior Analyst	International Department/Multilateral Relations Directorate
45	Mr. Zitro Alviotti	Junior Analyst	International Department/Multilateral Relations Directorate
46	Ms. Citra Amalia Yulianti	Junior Analyst	International Department/Multilateral Relations Directorate
47	Ms. Ratih Rachmawati	Junior Analyst	International Department/Multilateral Relations Directorate

Appendix III. Summary of Recommended Amendments to the FSI Definitions

The mission recommended the following amendments to align FSIs with the *2019 FSIs Guide* (Appendix III. Table 1). The recommended amendments include both improvements discussed in this report, as well as the incorporation of amendments brought by the *2019 FSIs Guide*. While most changes were implemented during the mission and will not require further work, those changes requiring a longer timeframe for implementation are bolded in the table and spelled out as individual recommendations in this report.

Appendix III. Table 1. Indonesia: Recommended Amendments to FSIs

Indicator	Recommendation / Update
Total Capital to RWA/Tier 1 Capital to RWA/Common Equity Tier-1 Capital to RWA	Exclude foreign bank branches from the compilation of Tier-1 capital, total regulatory capital, and risk weighted assets series for the compilation of FSIs. **(to be implemented)**.
Tier 1 Capital to Assets/Leverage ratio	Start reporting the new FSI (leverage ratio). Estimate total exposure measure for Islamic banks and incorporate this figure into the total exposure measure memorandum series **(to be implemented)**.
NPLs net of provisions to capital	This FSI is automatically generated by the FSI template by using total regulatory capital as denominator.
NPLs to total loans	The definition of total loans should be aligned with the *2019 FSIs Guide* definition.
Provisions to nonperforming loans	This FSI is automatically generated by the FSIs template by using the specific provisions and nonperforming loans data that is readily available.
Loan concentration by economic activity	Compile loan concentration by economic activity indicator in line with the methodology provided in the *2019 FSIs Guide*.
Return on Assets (ROA)	Use annualized net income before tax in the numerator. Aggregate the numerator as indicated in the report. This FSI is automatically generated by the FSIs template by using annualized net income before tax.
Return on Equity (ROE)	Use annualized net income after tax in the numerator. Aggregate the numerator as indicated in the report. This FSI is automatically generated by the FSIs template by using annualized net income after tax.

Indicator	Recommendation / Update
Interest margin to gross income	Deduction of accrued interest on nonperforming loans from interest income has limited effect on the indicator.
Noninterest expenses to gross income	Deduction of accrued interest on nonperforming loans from interest income has limited effect on the indicator.
Liquid assets to total assets/Liquid assets to short-term liabilities	Update the liquid assets memorandum series in line with the definitions provided in *2019 FSIs Guide*. **(to be implemented)**.
Liquidity coverage ratio	Start reporting the new FSI.
Net stable funding ratio	Start reporting the new FSI.
Net open position in foreign exchange to capital	Calculate the FX NOP in line with the aggregation approach specified in the *2019 FSIs Guide* **(to be implemented)**.
Large exposures to capital	Large exposures memorandum series to cover all exposures as defined in the Basel Framework.
Geographical distribution of loans to total loans	Update geographical distribution of loans consistent with classification of the World Economic Outlook.
Gross asset/liability position in derivatives to capital	These FSIs are automatically generated by the FSIs template by using total regulatory capital as denominator.
Trading income to total income	Deduction of accrued interest on nonperforming loans from interest income has limited effect on the indicator.
Personnel expenses to noninterest expenses	No change.
Spread between reference lending and deposit rates	Start reporting underlying series (reference lending rates and reference deposit rates) for the calculation of spread between reference lending and deposit rates.
Customer deposits to total non-interbank loans	No change.
FX loans to total loans / FX liabilities to total liabilities	Evaluate the size of foreign currency linked loans and foreign currency linked liabilities for the DTs and start collecting data if the size is considered material **(to be implemented)**.
Credit growth to private sector	Start reporting the new credit growth to private sector FSI.

Indicator	Recommendation / Update
Assets to total financial system assets (for total of OFCs and by subsectors)/Assets to gross domestic product (GDP) (for total of OFCs and by subsectors)	Report OFC total assets, including additional sectorization to incorporate total assets by MMFs, ICs and PFs and OFCs: other subsectors. Report institutional coverage for OFCs.
Residential real estate prices	This FSI has been categorized under core FSIs in the 2019 FSIs Guide.
Residential real estate loans to total loans/Commercial real estate loans to total loans	Report residential real estate and commercial real estate loans memorandum series in line with the definitions provided in the *2019 FSIs Guide* **(to be implemented)**.

These data and methodological revisions have resulted in significant changes to some FSIs. The mission recommended to the OJK to update the calculation of FSIs in line with the *2019 FSIs Guide*. Appendix III-Table 2 covers the size of change observed in the FSIs before and after the mission.

Appendix III. Table 2. Indonesia: Comparison of FSIs Before and After the Technical Assistance

	FSIs Mission Mar-21	Old FSIs Mar-21	Difference Basis Points
Core FSIs			
Regulatory capital to risk-weighted assets	24.05	24.05	0.00
Tier 1 capital to risk-weighted assets	22.26	22.26	0.00
Nonperforming loans net of provisions to capital	3.95	4.18	(22.57)
Common Equity Tier 1 capital to risk-weighted assets	20.25	-	
Tier 1 capital to assets/Leverage ratio	11.97	14.50	(252.47)
Nonperforming loans to total gross loans	2.72	2.83	(10.84)
Loan concentration by economic activity	56.81	-	
Provisions to nonperforming loans	67.89	-	
Return on assets	1.78	1.84	(6.32)
Return on equity	8.56	12.37	(380.33)
Interest margin to gross income	58.69	58.71	(2.63)
Noninterest expenses to gross income	40.70	40.67	2.59
Liquid assets to total assets	24.09	17.96	612.80
Liquid assets to short-term liabilities	35.65	25.99	966.16
Liquidity coverage ratio	263.80	-	

	FSIs Mission Mar-21	Old FSIs Mar-21	Difference Basis Points
Net stable funding ratio	138.62	-	
Net open position in foreign exchange to capital	1.25	1.25	0.00
Residential real estate prices (Percentage change/last 12 months)	1.17	1.17	-
Additional FSIs			-
Large exposures to capital	1.93	1.78	14.34
Geographic distribution of total loans			
Geographic distribution of total loans: Domestic economy	98.28	98.28	0.00
Geographic distribution of total loans: Advanced economies	0.57	0.57	0.00
Geographic distribution of total loans: Emerging market and developing economies	1.15	1.15	0.00
Geographic distribution of total loans: Emerging and developing Asia	0.97	0.97	0.00
Geographic distribution of total loans: Emerging and developing Europe	0.00	0.00	0.00
Geographic distribution of total loans: Latin America and the Caribbean	0.18	0.18	0.00
Geographic distribution of total loans: Middle East and Central Asia	0.00	0.00	0.00
Geographic distribution of total loans: Sub-Saharan Africa	0.00	0.00	0.00
Gross asset position in financial derivatives to capital	1.45	1.54	(8.29)
Gross liability position in financial derivatives to capital	1.35	1.43	(7.73)
Trading income to total income	3.50	3.50	0.22
Personnel expenses to noninterest expenses	44.16	44.16	(0.00)
Spread between reference lending and deposit rates (base points)	556.02	556.02	(0.00)
Spread between highest and lowest interbank rates (base points)	125.62	125.62	-
Customer deposits to total (no interbank) loans	104.37	104.37	(0.00)
Foreign-currency-denominated loans to total loans	12.39	12.88	(49.40)
Foreign-currency-denominated liabilities to total liabilities	18.94	18.89	4.93
Credit growth to private sector	-2.89	-	
Other financial corporations			
OFCs' assets to total financial assets: total OFCs	22.66	16.51	615.69
OFCs' assets to total financial assets: Money Market funds	0.75	-	
OFCs' assets to total financial assets: Insurance Corporations	6.58	-	
OFCs' assets to total financial assets: Pension Funds	2.59	-	
OFCs' assets to gross domestic product: OFCs	17.87	15.89	198.69
OFCs' assets to gross domestic product: Money Market funds	0.59	-	
OFCs' assets to gross domestic product: Insurance Corporations	5.19	-	
OFCs' assets to gross domestic product: Pension Funds	2.04	-	
Real estate markets			
Commercial real estate prices (Percentage change/last 12 months)	0.45	0.45	-
Residential real estate loans to total gross loans	8.20	8.53	(32.72)
Commercial real estate loans to total gross loans	8.79	9.14	(35.06)

Sources: TA Mission and the Indonesia Financial Services Authority - Otoritas Jasa Keuangan

Appendix IV. FSI Metadata for Deposit Takers

Financial Soundness Indicators Metadata for Indonesia

Metadata should be disseminated together with FSI data to facilitate data interpretation. Metadata include information about FSIs and their compilation, such as data definitions, how data are consolidated, supervisory and accounting rules adopted by the reporting banks, institutional coverage, and data sources, which are useful to data users. The updated metadata templates also provide a good coverage on the implementation of the prudential measures.

Residence of institutional units

Foreign-owned companies incorporated in Indonesia are classified as residents in line with System of National Accounts (2008 SNA), which classifies foreign-owned companies as residents in an economic territory where they engage in and intend to continue engaging in economic activities and transactions on a significant scale for at least one year.

Exchange rate

Financial institutions use Bank Indonesia mid-market rate (end of reporting period) for converting all items in foreign currencies into national currency.

Consolidation basis

FSIs for DTs in Indonesia are compiled on an unconsolidated basis. This approach covers resident domestically controlled and foreign controlled DTs, with their domestic and overseas branches. The consolidation basis also includes the branches in Indonesia of DTs that are incorporated abroad. However, foreign DTs and foreign and domestic non-deposit taking financial subsidiaries of domestically incorporated DTs are excluded from the reporting sample.

Consolidation adjustments

Intragroup adjustments refer to the elimination of financial flows (income and expense) and financial positions between DTs within the same banking group (parent, its branches, and subsidiaries). Intra-group adjustments are not undertaken for the compilation of FSIs.

Institutional coverage

FSIs for DTs cover 109 commercial banks. Rural banks, deposit taking microfinance institutions and credit unions and credit cooperatives are not included in the FSIs compilation.

Regulatory framework

Capital adequacy calculation follows a Basel III approach for the definition of regulatory capital and Basel-II approach for the definition of risk weighted assets. Basel III standards such as leverage ratio, large exposures framework, liquidity coverage ratio and net stable funding ratio are implemented in Indonesia.

Accounting framework

Both public and private companies must comply with accounting standards issued by the DSAK-IAI. Indonesia national accounting standards (SAK) are adopted from the IFRS. Indonesia's approach to the IFRS adaptation is to maintain one-year difference with the IFRS as issued by the IASB.

Data Definitions

Common Equity Tier 1 capital/Tier 1 capital/Total regulatory capital definitions are in line with Basel-III standards.

Risk Weighted Assets is calculated using standardized approaches for credit and market risk and basic indicator approach for operational risk.

High quality liquid assets/total net cash outflows/available stable funding/required stable funding definitions are in line with Basel-III standards.

Nonperforming loans (NPLs) is defined as loans for which one or more contractual payments of interest or principal are past due for 90 days or more. Delay on payment (90 days rule) is only one of the criteria in classifying a loan or other assets as NPLs or nonperforming assets. Classification of assets is basically based on business prospects, performance of the debtors, and repayment capability.

Return on assets (ROA) is calculated as the ratio of annualized net income before tax divided by average total assets.

Return on equity (ROE) is calculated as the ratio of annualized net income after tax divided by average capital and reserves.

Source data

Source data for compiling FSIs for DTs include income and expense statements, the balance sheets and other monthly data collected that are relevant for compiling supervisory series relating to definition of capital, deposit breakdown and nonperforming loans. Commercial banks are required to submit monthly reporting within 30 days after the reporting period.