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TECHNICAL ASSISTANCE REPORT

PAPUA NEW GUINEA

Report on the Financial Soundness Indicators Technical Assistance Mission

NOVEMBER 14–NOVEMBER 18, 2022

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CD RECIPIENTS

Papua New Guinea

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Acronyms and Abbreviations

APD........Asia and Pacific Department

BCBS......Basel Committee on Banking Supervision

Bp...........Basis Points

BPNG.....Bank of Papua New Guinea

BSD........Bank Supervision Department

CBCSDI…Cross-Border, Cross-Sector, Domestically Incorporated Consolidation Basis

DC..........Domestic Currency

DL...........Domestic Location Consolidation Basis

DTs.........Deposit Takers

ED..........Economics Department

FC..........Foreign Currency

FPMD...... Facilities and Properties Management Department

FSDD......Financial Systems Development Department

FSI-SRs... FSI Sectoral Financial Statements Template

FSIs……. Financial Soundness Indicators

2019 FSIs Guide…Financial Soundness Indicators Compilation Guide, 2019

FSIC.......Financial Soundness Indicators Institutional Coverage Report

FSM........Financial Soundness Indicators Metadata

FSSG......Financial Systems Stability Group

FVOIC....Fair Value Through Other Comprehensive Income

FVPTL....Fair Value Through Profit and Loss

GDP…….Gross Domestic Product

FX...........Foreign Exchange

IAS..........International Accounting Standards

ICs..........Insurance Corporations

ICS.........Integrated Collection System

ISIC .... International Standard Industrial Classification of All Economic Sector Activities

IFRSs ..... International Financial Reporting Standards

IMF .... International Monetary Fund

LICs .... Life Insurance Corporations

MFS .... Monetary and Financial Statistics

NLICs ..... Non-life Insurance Corporations

NOP .... Net Open Position

NPISHs... Nonprofit Institutions Serving Households

NPLs .... Nonperforming Loans

OCI .... Other Comprehensive Income

OECD ..... Organization for Economic Co-operation and Development

OFCs ...... Other Financial Corporations

OIC .... Office of Insurance Commissioner

PFs .... Pension Funds

ROA .... Return on Assets

ROE .... Return on Equity

RWAs ..... Risk-Weighted Assets

SLID .... Superannuation and Life Insurance Department

SNA .... System of National Accounts

STA .... IMF's Statistics Department

SRFs ...... Standardized Report Forms

TA .... Technical Assistance

Summary of Mission Outcomes and Priority Recommendations

1. **At the request of the Bank of Papua New Guinea (BPNG), and with the support of the International Monetary Fund's (IMF's) Asia and Pacific Department (APD), the Statistics Department (STA) conducted an in-person technical assistance (TA) mission on the compilation of financial soundness indicators (FSIs) during November 14-18, 2022 in Port Moresby.** The mission (i) reviewed available source data, institutional coverage, and accounting and regulatory frameworks used in the production of FSIs for deposit takers (DTs), life insurance corporations (LICs), and pension funds (PFs); (ii) compiled FSIs for DTs, LICs and PFs using the new FSIs report forms as set out in the IMF's *2019 FSIs Compilation Guide* (*2019 FSIs Guide*); and (iii) agreed on a work plan to regularly compile and report FSIs in the new FSIs report forms to STA.

2. **Prior to the mission, the BPNG was compiling and reporting a set of FSIs to STA which are disseminated in the IMF's FSI data portal.** The BPNG was compiling 13 core and six additional FSIs for DTs, which were not always aligned with the *2019 FSIs Guide's* definitions. This mission assisted the BPNG staff in compiling the following FSIs on a quarterly basis to be reported to the IMF: two new core and one additional FSIs for DTs; two additional FSIs on the size of other financial corporations (OFCs) subsector; three additional FSIs for LICs; and two additional FSIs for PFs. In addition, the mission recommended revisions in the compilation of several FSIs for DTs to ensure consistency with the methodological changes introduced in the *2019 FSIs Guide* (Appendix B).

3. **The mission, in collaboration with the BPNG staff, updated the bridge tables from the source data for compiling FSIs for DTs and developed new ones to compile FSIs for LICs and PFs for reporting to STA.** The bridge tables cover the mapping of income and expense statement, balance sheet, and memorandum/supervisory series to the IMF's FSI reporting templates. The use of the bridge tables is to ensure greater consistency in the compilation of the FSIs and facilitate the adoption of the new report forms. This mission also assisted the BPNG to fill-in the institutional coverage (FSIC) and metadata (FSM) report forms. Source data for compiling FSIs for DTs, ICs, and PFs are adequate and generally meet the criteria established by the *2019 FSIs Guide*.

4. **The FSIs are compiled using cross-border, cross-sector, domestically incorporated (CBCSDI) method of consolidation for DTs and aggregate resident-based approach (ARBA) for LICs and PFs.** The institutional coverage of the DTs currently comprises four commercial banks (and their deposit-taking and non-deposit-taking subsidiaries), four deposit-taking microfinance institutions, and nine licensed financial institutions. For LICs, the coverage comprises four LICs and for the pension funds, the FSIs cover the four superannuation funds. There are currently eight nonlife insurance corporations (NLICs), whose data are not available to the BPNG because there is yet no formal arrangement with the Office of Insurance Commissioner (OIC) for data sharing for compilation of the FSIs. However, once these data become available to the BPNG, the coverage of FSIs for ICs could be extended to the NLICs.

5. **The regulatory and accounting frameworks are broadly consistent with the Basel I and International Accounting Standards (IAS)/International Financial Reporting Standards (IFRS).** The minimum required capital adequacy ratio is currently at 12 percent for all commercial banks. The components of regulatory capital and risk weighted assets are broadly consistent with Basel I framework, and any deviations from it need to be documented in the metadata. Banks in Papua New Guinea have

adopted IFRS9 for valuation of financial instruments since 2020 and relied on a mixture of supervisory method and IFRS9's expected credit losses to calculate the minimum provisioning requirements.

6. The mission identified several areas for improvements in data collection and methodological framework. These include collecting granular data on accrued interest receivable/payable by financial instrument and counterpart sector; changing the definition of short-term liabilities to not less than three months; and realigning the classification of counterpart sectors in the consolidated financial statements used to compile the FSIs in line with monetary and financial statistics (MFS) to ensure greater consistency in the financial institutions data that are reported to the IMF. Until these shortfalls are addressed, the reporting of sectoral breakdowns of loans' assets and deposits' liabilities in the FSIs was temporarily put on hold.

7. The mission also updated the metadata and institutional coverage report forms (FSM and FSIC) accompanying the publication of FSIs. The contents of new Tables 2 and 3 of the metadata were broadly discussed and agreed during the mission with the staff of the BPNG and are consistent with the requirements of the *2019 FSIs Guide*. The publication of the metadata would provide additional information to the users on the structure of the banking sector and the national accounting and regulatory frameworks underpinning the production of the FSIs for banks as compared to the methodology of the *2019 FSIs Guide*.

8. A timeframe for reporting FSIs to STA was also discussed and agreed on with the authorities. The authorities started reporting the FSIs data and metadata for DTs in the new FSI-SRs, FSM, FSIC templates to STA, which were published in the IMF's FSIs website in March 2023. For newly compiled FSIs for ICs and PFs, these can be reported by October 2023 for dissemination.

9. To support progress in the compilation of FSIs in line with the *2019 FSIs Guide* and the dissemination of the data, the mission has prepared a detailed action plan. The priority recommendations are summarized in Table 1. Further details on the other recommendations and the related actions/milestones can be found in Detailed Technical Assessment and Recommendations and Action Plan.

Table 1. Papua New Guinea: Priority Recommendations

Target Date	Priority Recommendations	Responsible Institutions
March 2023 (Completed)	Report to STA for review the FSI sectoral financial statements (FSI-SRs) for DTs, including balance sheets, income statements, and memorandum series from 2008/Q4 onwards, the new FSI institutional coverage template (FSIC), and the new FSI metadata template (FSM).	**BPNG**
March 2023 (Completed)	Start regular reporting to STA FSI-SRs (on a quarterly basis), FSIC (annually), and FSM through the Integrated Collection System (ICS) for disseminating on the IMF's FSIs website with data starting from 2008/Q4 onwards.	**BPNG**

Section I. Detailed Technical Assessment and Recommendations

A. ACTION PLAN

10. **The Action Plan below includes steps to accomplish milestones as well as the target completion dates.** Actions are prioritized as high (H), medium (M) and priority recommendations (PR) identified.

Priority	Action/Milestone	Target Completion Date
Improved data and metadata accessibility		
PR	Report to STA for review the FSI sectoral financial statements (FSI-SRs) for DTs, including balance sheets, income statements, and memorandum series form 2008/Q4 onwards, the new FSI institutional coverage template (FSIC), and the new FSI metadata template (FSM).	March 2023 (Completed)
A new data set has been compiled and disseminated internally and/or to the public		
PR	Start regular reporting to STA FSI-SRs (on a quarterly basis), FSIC (annually) and FSM through the Integrated Collection System (ICS) for disseminating on the IMF's FSIs website with data starting from 2008/Q4 onwards.	March 2023 (Completed)
Methodological basis for the statistics follows internationally accepted standards, guidelines, or good practices.		
H	Start using the revised bridge tables developed by the mission to compile the FSIs for DTs consistent with the *2019 FSIs Guide.*	December 2022 (Completed)
M	Lower the threshold to calculate the value of large exposures from 10 percent of capital and reserves to Tier 1 capital for the purposes of reporting the FSIs.	October 2023
M	Compile new FSIs for OFCs (including LICs and PFs), credit to private sector, and interest rate spread on lending and deposit rates for dissemination.	October 2023
H	Realign the classification of financial instruments and counterpart sectors in the consolidated balance sheet used to compile the FSIs with the framework already put in place by previous MFS TA missions, which is consistent with the *2019 FSIs Guide* and the 2008 System of National Accounts (SNA).	December 2023
H	Resume the publication of sectoral distribution of loans and customer deposits in the sectoral balance sheet for compilation of the FSIs.	December 2023
H	Collect data on interest rate receivable/ payable by financial instrument and counterpart sector for reporting in FSIs data.	December 2023
H	Formalize the memorandum of understanding with the OIC for collection of data and compilation of the FSIs for NLICs.	December 2023
H	Review the treatment of contribution and payment of benefits in the preparation of income and expense statement of PFs.	October 2023

B. BACKGROUND

11. This was the first FSIs TA mission conducted for the BPNG, although it has been compiling and reporting to STA quarterly FSIs disseminated in the FSI data portal. The current FSIs were developed by the staff of the BPNG with guidance from STA. The BPNG also benefited from several TA Missions on Monetary and Financial Statistics (MFS) to enhance classification of financial instruments and institutional sectors, which BPNG can leverage to compile the FSIs. The FSIs for DTs currently play a significant role in the BPNG's surveillance of the financial system. The responsibility to compile the FSIs has been reassigned to the newly created Financial Systems Development Department (FSDD). The FSDD plans to incorporate the FSIs for DTs, ICs and PFs in its new financial stability report since the FSIs are internationally accepted set of indicators on the soundness of the financial system.

12. FSIs are indicators of the current health of a country's financial sector and of its corporate and household counterparts. In this regard, the 2019 *FSIs Guide* recommends compiling and disseminating 17 core and 12 additional FSIs for DTs, and 23 additional FSIs for other sectors. The IMF's FSI data portal disseminates FSIs data and metadata of 146 countries. The site acts as a hub where users have a point of easy access to FSIs that comply with internationally accepted methodological standards, promoting cross-country comparability.

C. OVERVIEW OF THE FINANCIAL SYSTEM IN PAPUA NEW GUINEA

13. The BPNG performs the traditional central banking functions. In addition, the BPNG acts as supervisory authority for the commercial banks, credit institutions and development bank as well as LICs and PFs.

14. In Papua New Guinea, DTs account for approximately 75 percent of the total financial system assets. The DTs are characterized as follows (Table 1):

- **The banking sector comprises two domestically controlled banks and two foreign controlled subsidiaries.** The two domestically controlled banks occupy around 80 percent of the total assets of the banking sector in Papua New Guinea. One of them can be categorized as a domestic systemically important bank as it has about 70 percent of the total assets of the commercial banks. The remaining assets are held by the two foreign banks operating in Papua New Guinea. All commercial banks are licensed under the Banks and Financial Institutional Act 2000 to conduct their banking business.

- **The other DTs consist of the nine licensed financial institutions, sixteen savings/credit cooperatives, and four microfinance institutions, all of which are domestically controlled.** These institutions account for less than 9 percent of the DTs financial assets. The licensed financial institutions and microfinance institutions are also licensed under the Banks and Financial Institutional Act 2000. The sixteen savings/credit cooperatives, which are licensed under the Savings and Loan Societies Act, 1915, are currently not included in the compilation of FSIs.

Table 2: Papua New Guinea: The Financial Sector

Financial Corporations	Number of Institutions	Total Assets (Million, Kina)[1]	Share in Total Assets (in percent)
Deposit Takers	**33**	**54,911**	**75.2**
Commercial banks	4	50,100	68.6
o/w domestically controlled	2	39,893	54.6
o/w foreign controlled subsidiary	2	10,207	14.0
Licensed financial institutions	9	2,280	3.1
o/w FX Dealers	2	1,020	1.4
Savings/credit cooperatives	16	1,608	2.2
Microfinance institutions	4	922.5	1.3
Other Financial Corporations	**39**	**18,092**	**24.8**
Pension funds	4	16,022	21.9
Insurance			
o/w life insurance	5	232.7	0.3
o/w nonlife insurance	13	848.4	1.2
State-owned bank	1	721.4	1.0
Fund Administers	3	40.4	0.1
Investment Managers	4	63.8	0.1
Life Insurance Brokers	6	156.4	0.2
Money Changers	8	6.5	0.01
Money Remitters	2	Not available	-
Mobile Network Operators	1	Not available	-
Total	**72**	**73,002**	**100**

Sources: BPNG and IMF staff.

15. The OFCs sector holds approximately 25 percent of total assets of the financial system.

- **There are four superannuation funds, which are authorized to conduct their activities under the Superannuation (General Provisions) Act 2000.** The superannuation fund is the largest subcomponent of OFCs sub-sector accounting for 22 percent of the total financial assets.

- **The insurance subsector consists of five life and thirteen non-life ICs.** While LICs are supervised by the BPNG under the Life Insurance Act 2000, NLICs are supervised by OIC. One of five LICs has ceased to report the data to the BPNG as it is currently under liquidation. The data of eight out of thirteen NLICs are currently unavailable to the BPNG because there is yet no formal arrangement for sharing of data between the BPNG and the OIC. Together the ICs except for eight NLICs account for around 1.5 percent of the total financial system assets.

- **The remaining of the OFCs subsector comprise one state-owned bank and 24 small financial corporations.** The state-owned bank with the 1.0 percent share of the total financial system assets do not take deposits. The remaining 24 financial corporations account for less than 0.5 percent of the total financial assets.

[1] Data for commercial banks are as of December 2021 and for the other institutions are as of December 2020. For NLICs, the data are aggregate over five out of thirteen corporations which are currently available to the BPNG.

D. INSTITUTIONAL COVERAGE AND CONSOLIDATION BASIS

16. The FSIs for DTs are compiled using CBCSDI consolidation basis. The CBCSDI is the recommended method of consolidation of the 2019 *FSIs Guide*. It is consistent with the Basel Committee on Banking Supervision (BCBS) guidance requiring application of the same supervisory standards to domestic and foreign-owned banks, and for effective consolidated supervision of all domestic and foreign operations within a banking group. However, in Papua New Guinea consolidated financial statements are derived from the accounting framework, which may not yield the same outcome as the Basel framework. Due to time constraint, the mission could not confirm the treatment of insurance subsidiaries/associates in the consolidation financial statement.[2] Instead, the BPNG agreed to follow up with the concerned bank to confirm the treatment of the insurance and document any methodological deviation relating to consolidation method in the metadata. The institutional coverage for DTs comprises one banking group (and its domestic and foreign DTs and non-DTs subsidiaries), three commercial banks, four deposit-taking microfinance institutions, and nine financial institutions.

17. Currently there are no DTs in receivership/liquidation in Papua New Guinea. The 2019 *FSIs Guide* recommends including DTs in distress if they hold significant positions and to compile FSIs both including and excluding these DTs. However, if they are excluded from the compilation of the FSIs, this should also be stated in the FSIC.

18. In addition, the mission also assisted BPNG to compile the new additional FSIs for LICs and PFs using ARBA. ARBA consists of simple aggregation of the income and expense statements, balance sheets and memorandum series of LICs and PFs. No intragroup adjustments are needed since the insurance laws and regulations require ICs to conduct their LICs and NLICs in separate units while PFs operate as separate entities. The FSIs for ICs currently comprise five LICs only. The BPNG is expected to expand the coverage to include NLICs after the agreement for the data sharing is made with the OIC. For PFs, the coverage comprises the four superannuation funds.

E. ACCOUNTING AND REGULATORY FRAMEWORKS UNDERLYING THE FSI DATA

19. Commercial banks adopted IFRS9 in 2020. Prior to implementation of IFRS9, commercial banks used IAS39 for valuation of financial instruments. In accordance with IFRS9, financial instruments are valued at amortized cost, fair value through other comprehensive income (FVOIC) and fair value through profit and loss (FVTPL). In addition, banks have also adopted expected credit losses, alongside supervisory method, to calculate loans loss provisioning requirements. For ICs and PFs, realized and unrealized gains/losses on investments in financial instruments are mostly valued at FVTPL.

20. The 2019 *FSIs Guide* also recommends the collection and dissemination of data on other comprehensive income in the income and expense statements for DTs, ICs and PFs. This is because movements in other comprehensive income may represent a source of vulnerability on their future profitability. Flow data on other comprehensive income are of interest for countries, which have already adopted IFRS9. The 2019 *FSIs Guide* introduces a new line item after current year results in the income and expense statements for DTs, ICs and PFs to record movements in other comprehensive income during the period. Other comprehensive income covers, among others, the unrealized

[2] Consistent with the scope of application of the Basel framework, the 2*019 FSIs Guide* recommends that insurance subsidiaries/associates be excluded from consolidation for the purpose of compiling the FSIs for DTs.

gains/losses on financial instruments that are valued at FVOIC, which are yet to be recorded in the income and expense statements.

21. NPLs are defined as loans that are past due for 90 days or more. NPLs and minimum provisions requirements are defined in the BPNG's prudential standard 2/2003 on asset classification, provisioning, and suspension of interest. Loans are considered as NPLs when any portion of principal or interest which is due and unpaid for 90 days or more, or interest payments for 90 days or more have been capitalized, refinanced, or rolled over into a new loan. The national definition of NPLs is broadly consistent with the 2019 *FSIs Guide.* However, the national definition of NPLs does not cover cases where there are evidence to reclassify NPLs before they are past due for 90 days, such as when the debtor files for bankruptcy. NPLs comprise past due loans that are classified as substandard, doubtful and loss while performing loans comprise loans that are classified as pass or acceptable and special mention. Consistent with the 2019 *FSIs Guide*, provisions on performing and NPLs are classified as general and specific provisions, respectively. The level of general and specific provisions is determined according to the number of days past due (Table 3). Provisions on performing loans are mapped to general and other provisions' liabilities in Table 5.1 DT of FSI-SRs. Further, when loans are classified as NPLs, they are placed on non-accrual status.

TABLE 3: Papua New Guinea: Loans Classification and Minimum Provisioning Requirements

Category	Number of days past due	Minimum provisions (in percent)
Pass or Acceptable	0-59	1
Special mention	60-89	5
Substandard	90-179	25
Doubtful	180-359	50
Loss	more than 360	100

22. The capital adequacy ratios of banks follow mainly Basel I Capital Accord. In addition, banks in Papua New Guinea have adopted a simplified definition of the Basel's leverage ratio defined as the ratio of Tier 1 capital to total assets (after adjusting for deduction specific to Tier 1 capital). The components of regulatory capital and risk-weighted assets (RWAs) are prescribed by the BPNG's prudential standard 1/2003 on capital adequacy.

- Tier 1 capital comprises permanent shareholders' equity (issued and fully paid-up ordinary shares and non-cumulative perpetual preference shares) plus disclosed reserves (additional paid-in share premium plus retained earnings or undistributed profits) and minority interests in the equity of consolidated subsidiaries, less: goodwill and other eligible supervisory deductions.

- Tier 2 capital consists of current year's interim profits (or losses), undisclosed reserves, asset revaluation reserves (if allowed by the Bank and consistent with applicable accounting standards), general loan loss provisions (not exceeding 1.25 per cent of total risk-weighted assets), qualifying subordinated term debt, and hybrid debt-equity capital instruments. Tier 2 capital is limited to a maximum of 100% of Tier 1 capital.

- Total regulatory capital is the sum of the Tier 1 and 2 capitals (net of deductions[3]).

- Total RWAs are calculated following the Basel I's standardized approach for credit risk. Off-balance sheet credit exposures are converted into their credit equivalent amounts by multiplying their nominal amounts with their respective credit conversion factor, ranging from 0–100 percent depending on type of transaction and maturity, before risk weights are applied (Table 4). A zero percent conversion factor is applied to commitments with an original maturity of up to one year, or which can be unconditionally canceled at any time.

23. The Basel I regulatory framework is applied uniformly to all commercial banks, licensed financial institutions and microfinance institutions. The minimum required capital adequacy ratio is currently at 12.0 percent. In addition, the BPNG also enforces the minimum Tier 1 capital ratio and the minimum leverage capital ratio, which are currently at 8.0 percent and 6.0 percent, respectively. In addition, when a bank is pursuing or experiencing significant growth and has inadequate risk management systems, an inordinate level of risk, or less than satisfactory asset quality, management, earnings or liquidity, a higher minimum may be prescribed.

TABLE 4: Papua New Guinea: Summary of Risk-Weighted Coefficients

Types of claims	Risk Weights (in per cent)
Cash; Claims on and balances with the BPNG; Claims, or portions thereof, on, guaranteed by, or fully secured by securities issued by the Government of Papua New Guinea[3]; Claims on central governments and central banks denominated in national currency and funded in that currency; Other claims on OECD central governments and central banks; Claims, or portions thereof, collateralized by securities of, or guaranteed by, OECD central governments; and Claims, or portions thereof, fully secured by cash or pledged deposits in the same bank.	0
Claims on multilateral development banks (The International Bank for Reconstruction and Development, the Inter-American Development Bank, the Asian Development Bank, the African Development Bank, the European Investment Bank, or others as may be approved by the BPNG) and claims, or portions thereof, guaranteed by, or collateralized by, securities issued by such banks; Claims on, and loans, or portions thereof, guaranteed by, banks incorporated in the OECD countries, domestic commercial banks and other banks incorporated in countries outside the OECD with a residual maturity of up to one year; Claims on, and loans, or portions thereof, guaranteed by, non-domestic OECD public-sector entities, excluding the central government, subject in all cases to prior approval of the BPNG; and Cash items in process of collection.	20
Loans fully secured by mortgages on residential property that are or will be occupied by the borrowers or that are rented[4]; Claims on, and loans, or portions thereof, guaranteed by, provincial governments of Papua New Guinea; and Claims on public enterprises as approved by the BPNG.	50

[3] The Deductions are investments in and loans to unconsolidated banking and other financial subsidiary companies and associates; investments in the capital of other banks and financial institutions licensed to do business in Papua New Guinea, and loans or investments of a capital nature.

Claims on the private sector; Claims on, or loans guaranteed by, domestic commercial banks and other banks incorporated outside the OECD with a residual maturity of over one year; Claims on central governments outside the OECD (unless denominated in and funded in national currency); Other claims on public sector entities not rated at 50 percent; Claims on commercial companies owned by public sector entities; Claims on local governments in Papua New Guinea; Premises, plant and equipment and other fixed assets; Real estate owned and other investments (including non-consolidated investment participations in other companies); Capital instruments issued by other banks (unless deducted from capital); and All other assets, excluding those deducted from capital.	100
3/ For a guarantee to qualify for 0% weighting, it must be affirmed, irrevocable and unconditional. 4/ Exclude loans for speculative development of residential property and loans to companies or persons to finance housing developments.	

F. SOURCE DATA

24. Source data from DTs, LICs and PFs are broadly adequate to compile the FSIs for Papua New Guinea. The source data to compile FSIs for DTs, LICs and PFs cover income and expense statements, the balance sheets and memorandum series that are collected from the regulated entities on a quarterly basis as described in their respective charts of accounts. In addition, source data covers other supervisory series for DTs relating to capital adequacy, asset quality, earnings and profitability, liquidity, and net open positions in FX.

25. The FSIs for DTs, LICs and PFs are calculated using the following prudential reports that are reported to BPNG quarterly:

- DTs: Call Returns 1.1. Balance Sheet
- DTs: Call Returns 1.2. Balance Sheet - Supporting Details
- DTs: Call Returns 2.1. Income Statement
- DTs: Call Returns 3.1. Loan Book Reconciliation
- DTs: Call Returns 3.2. Largest Loan Relationships
- DTs: Call Returns 4.1. Delinquent Loans
- DTs: Call Returns 4.3. Deposit Composition
- DTs: Call Returns 5.1. Capital Adequacy - Risk Weight Assets
- DTs: Call Returns 5.2. Capital Adequacy - Capital Components
- DTs: Call Returns 8.1. Market Sensitivity
- LICs: Life Insurance Companies Returns Form 1. Statement of Revenue and Distribution
- LICs: Life Insurance Companies Returns Form 2. Balance Sheet
- LICs: Life Insurance Companies Returns Form 3. Statement of Premium and Commission
- LICs: Life Insurance Companies Returns Form 6. Statement of General Expenses
- PFs: Form ASF-1. Statement of Change in Net Assets
- PFs: Form ASF-2. Statement of Net Assets

26. Source data from NLICs need to be supplemented by those shared by the OIC before starting to compile the FSIs for the whole insurance sector. The only source data from NLICs that are currently available to the BPNG is the balance sheet data to compile the SRF 4SR for MFS. Five out of thirteen NLICs are voluntarily reporting the balance sheet data to the BPNG. After the BPNG and the OIC reach to the agreement to share the source data for the balance sheet data from the remaining eight NLICs and for the income and expense statements, the BPNG is expected to start compiling the FSIs for the whole insurance sector.

G. COMPILATION FRAMEWORK

27. The mission worked with the staff of the BPNG to update bridge tables to compile the core and additional FSIs for DTs for transmission to STA. In addition, the mission also developed new bridge tables to compile the additional FSIs for LICs and PFs. This process involved mapping source data to tables 5.1 DT, 5.3.1 LICs and 5.4 PFs of the FSI-SRs and deriving the FSIs from the underlying data in FSD sheet. The bridge tables show where each item in the income and expense statement, balance sheet and memorandum series are classified, serving as a useful reference for compilers. The mission provided the compilation spreadsheets, including the bridge tables for DTs, LICs and PFs, to the BPNG. The use of the revised bridge tables will facilitate the compilation of the FSIs for DTs, ICs and PFs. Eventually, the BPNG would benefit from automating the calculation of the FSIs from its information system.

28. The mission expanded the list of the FSIs that are reported to STA. The list of new FSIs compiled comprise: two new core and one additional FSIs for DTs; two additional FSIs on the size of OFC's subsector; two additional FSIs for LICs; and two additional FSIs for PFs. All FSIs are to be compiled and reported to STA on a quarterly basis.

29. There are certain differences between the existing FSIs compiled by the BPNG and those developed during the mission. The FSIs compiled by the mission are based on the recommended compilation methodologies of the 2019 *FSIs Guide.* Though the authorities did compile FSIs for monitoring financial sector stability, the definitions and consolidation methods were not necessarily aligned with the 2019 *FSIs Guide.* The differences between the existing FSIs compiled by the BPNG with the FSIs compiled during the missions are explained in Appendix C.

Recommendation:

- *The BPNG to start using the revised bridge tables developed by the mission to compile the FSIs for DTs consistent with the 2019 FSIs Guide by December 2022 (completed).*

Deposit Takers

Sectoral financial statements

30. The mission updated the bridge tables to compile FSIs for DTs. Compared to the current framework, several accounts were reclassified in the sectoral financial statements in Table 5.1 DTs (see Table 5). The bridge tables developed during the mission incorporate these reclassifications.

TABLE 5: Papua New Guinea: Reclassification of main accounts in Table 5.1 DTs

Income and Expense Statement	
1.	Other (Advisory Fees, etc.) reclassified to other income from fees and commissions receivable
2.	Extraordinary profit/losses reclassified to other income/expenses from extraordinary profits/losses
Balance Sheet	
3.	Other assets reclassified to other financial assets from nonfinancial assets
4.	Suspended interest deducted from gross loans (and not as specific provisions)
5.	General loan loss provisions reclassified to general and other provisions from capital and reserves.

31. Consistent with the approach adopted by the 2019 *FSIs Guide,* extraordinary profits/losses were reclassified to other income/expenses, respectively. This is because the 2019 *FSIs Guide* follows IAS1, which does include a separate line item for extraordinary items. Prior to the 2019 *FSIs Guide*, extraordinary profits/losses were adjusted in operating profits/losses before deduction of income tax. As a result of this reclassification, the past profitability indicators that take noninterest income, gross income, and noninterest expenses either as numerator or denominator may be restated.

32. The classifications of financial instruments are broadly adequate to compile the sectoral balance sheet in Table 5.1 of FSI-SRs. However, because of the lack of granular data on accrued interest receivable/payable by financial instruments and counterpart sectors, interest receivable/payable were proportionally allocated to their respective financial instruments and counterpart sectors. However, going forward, the mission recommends that the BPNG collects granular information of the breakdown of accrued interest by financial instruments and counterpart sectors in the consolidated financial statements that are used to compile FSIs to ensure greater consistency with 2019 *FSIs Guide*.

33. The current classification of counterpart sectors in the consolidated financial statements are not fully consistent with the 2019 *FSIs Guide.* The mission found that there were major differences in the classifications of counterpart sectors used by the BSD and those used to compile MFS. Due to these inconsistencies, it was not possible to properly map the sectoral distribution of loans' assets and the components of deposits' liabilities in table 5.1 DTs. The mission advised pausing the reporting of the distribution of loans and deposits until they are properly sectorized. The current system of classification of counterpart sectors used for MFS should serve as a reference to improve current sectorization in consolidated financial statements used by the BSD since they are broadly aligned with the *MFSMCG,* 2019 *FSIs Guide*, and are consistent with the 2008 *SNA*.

34. The mission also noted some inconsistency in the recording of accrued interests in call reports of DTs, which are used to compile MFS. Currently, some DTs are reporting financial instruments gross of accrued interests while other DTs are reporting accrued interests in other assets/liabilities. Because of this inconsistency, the mission could not rely on the sectoral classification of loans and deposits from MFS as proxy to construct the sectoral breakdown of loans and deposits in table 5.1 DTs for the resident sectors. Like the *MFSMCG*, the 2019 *FSIs Guide* recommends that financial instruments are recorded together with gross of accrued interests.

Recommendations:

- *The BPNG to realign the classification of financial instruments and counterpart sectors in the consolidated balance sheet used to compile the FSIs with the framework already put in place by previous MFS TA missions, which is consistent with the 2019 FSIs Guide and the 2008 System of National Accounts SNA, by December 2023.*

- *The BPNG to resume the publication of sectoral distribution of loans and customer deposits in the sectoral balance sheet for compilation of the FSIs by December 2023; and*

- *The BPNG to collect data on interest rate receivable/ payable by financial instrument and counterpart sectors for reporting in FSIs data by December 2023.*

Memorandum and Supervisory Series

35. Large exposures are compiled using national definition. Large exposures are defined in the BPNG's Prudential Standard 1/2011 on large exposure as the sum of all credit exposures, to a single counterpart or to a group of closely related counterparts that in aggregate amount exceeds a 10 percent of capital base. Total exposures comprise any direct or indirect advance of funds made to a counterpart based on an obligation to repay the funds advanced, or which is repayable from specific property pledged by or on behalf of a counterpart. To ensure consistency with the 2019 *FSIs Guide*, the mission recommends the BPNG to adjust the threshold to report large exposures from 10 percent of capital and reserves to 10 percent of Tier I capital.

Recommendation:

- *The BPNG to lower the threshold to calculate the value of large exposures from 10 percent of capital and reserves to tier 1 capital for the purpose of calculating the FSIs by October 2023.*

36. The definitions of liquid assets and short-term liabilities remain unchanged. The BPNG opted to continue using the definition of core liquid assets. Although the core definition was phased out in the 2019 *FSIs Guide*, it remains an adequate measure of liquidity in Papua New Guinea. Under the core measure, government securities are excluded since there is no active secondary market to trade them in Papua New Guinea. The definition of short-term liabilities may also be overstated because it covers all time deposits which may have maturity of more than three months, whereas *the* 2019 *FSIs Guide* defines short-term liabilities as those liabilities which can be withdrawn either on demand or within three months or less.

37. The mission also revised the calculation of net open position in foreign exchange (FX) in accordance with the 2019 *FSIs Guide*. Net open position in FX is currently calculated as the difference between FX denominated on-balance sheets assets and liabilities only, based on the quarterly call reports of DTs. However, BPNG's Prudential Standard 2/2001 requires each bank to report on a weekly basis their net open position in FX for on- and off-balance sheet using the Basel's shorthand method, which is consistent with the 2019 *FSIs Guide*. Therefore, the mission advised the BPNG to use the weekly call reports to compile net open position in FX.

38. Finally, the mission also compiled two newly introduced core and one additional FSIs for DTs for reporting to STA. Source data for compiling these three FSIs are readily available from the call reports and are consistent with the 2019 *FSIs Guide*. The two core and one additional FSIs for DTs are as follows:

- **Provisions to NPLs:** the coverage ratio, which is a new core FSIs for DTs introduced in the 2019 *FSIs Guide*, is calculated by taking specific provisions divided by total gross loans.
- **Spread between reference lending and deposit rates:** This new core FSI measures the difference (expressed in basis points) between the weighted average loan and deposit rates. Following the second approach recommended by the 2019 *FSIs Guide*, weighted averages are approximated using annualized interest income on loans divided by average non-interbank gross loans and annualized interest expenses on deposits divided by average deposits. The average reference lending and deposit rates covers resident and nonresident positions.
- **Credit growth to the private sector:** The new additional FSI for DTs on credit growth to private sector measure the year-over-year growth rate of credit to the private non-financial corporations and households and nonprofit institutions serving households (NPISHs). 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. The credit to private sector currently consists of loans extended by DTs to the private nonfinancial corporations and households and debt securities issued by nonfinancial corporations. Source data to compile credit growth to private sector are derived from MFS (SRF 2SR) and are adequate to measure credit growth to the private sector in local jurisdiction. This is because loans and debt securities to nonresidents (including those of overseas DT subsidiaries) are to be excluded. Unlike the other FSIs for DTs, credit growth to private sector is compiled using Domestic Location (DL) consolidation basis, which needs to be documented in the metadata.

Recommendation:

- *The BPNG to compile credit to private sector and interest rate spread on lending and deposit rates for dissemination by December 2023.*

Other Financial Corporations

39. The mission worked with the BPNG staff to compile two additional FSIs on the size of the OFCs' subsector in Papua New Guinea for reporting to STA on a quarterly basis. The two additional FSIs are (i) OFCs' financial assets to total financial system assets and (ii) OFCs' financial assets to gross domestic product (GDP). The two FSIs are also compiled for ICs and PFs. There are currently no money market funds operating in Papua New Guinea. Total financial system assets comprise the total assets of DTs (Table 5.1), ICs (Table 5.3) and PFs (Table 5.3) and the remaining OFC subsectors. GDP figures are derived from IMF's WEO database.

Insurance corporations

40. The mission also compiled the three newly introduced additional FSIs for LICs for reporting to STA on a quarterly basis. The ICs in Papua New Guinea cover four LICs and five NLCs. There are no composite ICs in Papua New Guinea, since the insurance laws and regulations require the ICs to produce separate set of financial statements for their life and non-life operations. The mission constructed the bridge tables to map income and expense statements and sectoral balance sheet from

Standard Report Forms (SRF- 4SR) of LICs to fill-in Table 5.3.1 LICs of the FSIs-SRs. Going forward, the collection of granular data on components of revenue and expenses would improve current classification in the income and expense statement, although this does not affect the profitability indicator compiled by the mission. The three additional FSIs for LICs compiled during the mission are as follows:

- **Shareholder equity to total invested assets:** The additional FSI may be used as alternative to measure capital adequacy and leverage for LICs since there are presently no agreed international standards to measure capital adequacy for LICs. This FSI is calculated by taking capital and reserves as numerator while the denominator is the sum of LICs' holdings of currency and deposits, loans, debt securities, equity and investment fund shares, other financial assets, financial derivatives, and nonfinancial assets held for investment purposes.
- **Return on asset:** ROA measures the efficiency of the LICs in using their stock of assets. It is calculated by using annualized net profit before tax divided by average total assets of LICs.
- **Return on equity:** ROE measures the efficiency of the LICs to generate profits to absorb potential losses and new equity capital to sustain their core insurance business. It is calculated by using annualized net profit after tax divided by average capital and reserves of LICs.

41. The mission also met with the OIC to discuss the compilation of FSIs for NLICs. In general, the OIC welcomed the initiatives of the BPNG to compile and report FSIs to the IMF for NLICs. Further, the OIC indicated that they have no objection for sharing of the data on the profitability of NLICs to BPNG. It was agreed that once the relevant source data are identified, STA could potentially provide remote assistance to BPNG and OIC with the mapping for the bridge tables to produce the FSIs for NLICs as well as aggregating the data of LICs and NLICs to produce FSIs for ICs. The mission also advised the BPNG and OIC to formalize a Memorandum of Understanding for sharing and dissemination of aggregate data (including the FSIs) on NLICs between both supervisors.

Pension Funds

42. The superannuation funds are currently classified as OFCs in the financial corporations' survey in IFS's publication. The four superannuation funds are established by virtue of Papua New Guinea Superannuation Act 2000 and are supervised by BPNG. Although the superannuation funds are set up as social security funds, the BPNG confirmed that none of the superannuation funds[4] currently rely on government funding to pay the pension contributions of their members. Instead, the superannuation funds operate as defined benefit pension plans and member's contributions are invested in financial assets and properties to generate revenue to fully repay them upon retirement.

43. The mission developed new bridge tables to produce the two additional FSIs for PFs. Source data are income and expense statements, balance sheets and memorandum series of the superannuation funds, which are broadly adequate to produce the two additional FSIs for PFs. However, due to absence of granular details, the components of revenue and expenses could not be fully disaggregated in Table 5.4 PFs. In addition, the mission found inconsistences in the reporting of accrued revenue and expenses in the income and expense statement from the call reports of the PFs compared to their audited financial statements, which need to be examined further. Therefore, the mission advised

4 The BPNG confirmed superannuation fund for military personnel no longer rely on government subsidies to pay members pensions benefits following changes in their bylaws although in past it used to rely on government funding.

the BPNG to confirm that the accounting treatment for recording of members' contribution and payment of benefits are consistent with Table 5.4 PFs in the new FSIs templates. The two additional FSIs for PFs compiled during the mission are as follows:

- **Return on assets:** This new additional FSI is calculated by taking annualized net profit profits/losses before tax divided by average total assets. Annualized net profits and total assets are calculated using the same framework as for DTs.
- **Liquid assets to estimated pension payments in the next year:** The new additional FSI provides an indication on whether the pension funds have enough liquid assets to meet the payment of their pension obligation within the next 12 months. Liquid assets include cash, placements with commercial banks and investment in government securities with maturity of 12 months. Estimated pension payments are defined in the 2019 *FSIs* Guide as the sum of the actuarially expected payments to beneficiaries by PFs during the past two months.

Recommendations:

- *The BPNG to compile new FSIs for OFCs (including LICs and PFs) for dissemination by October 2023.*
- *The BPNG to review the treatment of contribution and payment of benefits in the preparation of income and expense statement of PFs by October 2023.*
- *The BPNG to formalize the memorandum of understanding with OIC for collection of data and the compilation of the FSIs for NLICs by December 2023.*

H. DATA AND METADATA REPORTING

44. Following the successful mapping of source data to the new FSI-SRs, the BPNG started to report FSIs for DTs to STA for dissemination in March 2023. To facilitate compilation and dissemination of the FSIs, the BPNG already aligned the definitions of FSIs that are currently produced with that of the 2019 *FSIs Guide.* In addition, the BPNG would need to align the FSIs data, which are published on its website, with their new definitions as reported to STA.

45. The BPNG also needs to update the metadata (FSM and FSIC) for DTs accompanying the publication of the FSIs in March 2023. The contents of the new Tables 2 and 3 of the metadata for Papua New Guinea were discussed and agreed with the staff of the BPNG during the mission and are consistent with the requirements of the 2019 *FSIs Guide.*[5] The publication of the updated metadata provides additional information on the structure of banking sector and the national accounting and regulatory frameworks underpinning the production of the FSIs for banks compared to the methodology of the 2019 *FSIs Guide.* In addition, the BPNG should indicate the presence of any DTs in liquidation (if any) that are not included in the coverage of FSIs in the FSIC form.

5 The BPNG has already submitted Table 2 for dissemination and is expected to submit Table 3 soon.

Recommendations:

- *The BPNG to report to STA for review the sectoral financial statements (FSI-SRs) for DTs, including balance sheets, income statements, and memorandum series form 2008/Q4 onwards, the new FSIC, template and the new FSI metadata template (FSD) by March 2023 (Completed).*
- *The BPNG to start regular reporting to STA, FSI-SRs (on a quarterly basis), FSIC (annually), and FSM through the ICS for disseminating on the IMF's FSIs data portal with data starting from 2008/Q4 onwards by March 2023 (Completed).*

I. RESOURCES, TRAINING, AND TECHNICAL COOPERATION

46. The mission encouraged the staff of BPNG to participate in regional and HQ training courses on financial sector statistics. BPNG staff who compile the FSIs for DTs, ICs and PFs would benefit from taking training courses that STA has in the past regularly delivered at IMF headquarters (each course once every two years), and regional training centers. STA also delivers remote courses. Details can be found on the webpage of the IMF's Institute for Capacity Development.

Appendices

APPENDIX A. OFFICIALS MET DURING THE MISSION

No.	Name	Title	Division
1.	Mr. George Awap	Acting Assistant Governor	FSSG, BPNG
2.	Mrs. Sabina Deklin	Department Manager	BSD, BPNG
3.	Mr. Thomas Jiki	Department Manager	ED, BPNG
4.	Mr. Tanu Irau	Acting Department Manager	FSDD, BPNG
5.	Ms. Walio Gamini	Unit Manager, Licensing and Compliance Unit	FSDD, BPNG
6.	Mr. Mark Ofoi	Unit Manager, Macroprudential Supervision Unit	FSDD, BPNG
7.	Mr. Justin Sil	Senior Analyst, Macroprudential Supervision Unit	FSDD, BPNG
8.	Mr. Hubert Komatale	Senior Analyst, Financial Systems Policy Unit	FSDD, BPNG
9.	Mr. Yara Hanaga	Senior Analyst, Licensing Unit	FSDD, BPNG
10.	Mr. Roland Funmat	Analyst, Macroprudential Supervision Unit	FSDD, BPNG
11.	Mr. Israel Mudima	Analyst, Macroprudential Supervision Unit	FSDD, BPNG
12.	Mr. Collin Nixon	Analyst, Macroprudential Supervision Unit	FSDD, BPNG
13.	Ms. Marie-Rose Sau	Senior Secretary, Financial System Supervision Group	FSDD, BPNG
14.	Ms. Laka Ali	Secretary, Macroprudential Supervision Unit	FSDD, BPNG

No.	Name	Title	Division
15.	Ms. Karia Kini	Secretary, Licensing and Compliance Unit	FSDD, BPNG
16.	Ms. Ruby Tiale	Records Management Clerk	FSDD, BPNG
17.	Mr. Wilson Jonathan	Unit Manager, Monetary Policy Unit	ED, BPNG
18.	Mr. Abdul Ulopo	Senior Analyst, Monetary Policy Unit	ED, BPNG
19.	Mr. Timon Wasupin	Analyst, Monetary Policy Unit	ED, BPNG
20.	Ms. Rosalyn Inguba	Acting Unit Manager, Financial Systems Policy Unit	FSDD, BPNG
21.	Mr. Nickson Kunjil	Unit Manager, Savings & Loans Unit	BSD, BPNG
22.	Mr. Boas Irima	Unit Manager, Banking and Finance companies Unit	BSD, BPNG
23.	Mr. Samson Wai	Senior Analyst, Banking and Finance companies Unit	BSD, BPNG
24.	Mr. David Yoannes	Examiner, Banking and Finance companies Unit	BSD, BPNG
25.	Mr. Bobby Marase	Analyst, Banking and Finance companies Unit	BSD, BPNG
26.	Ms. Elizabeth Gima	Department Manager	SLID, BPNG
27.	Mr. Joseph Nukints	Unit Manager, Life Insurance Unit	SLID, BPNG
28.	Mr. Luke Mongolap	Senior Analyst, Superannuation Unit	SLID, BPNG
29.	Ms. Natasha Vaina	Analyst, Superannuation Unit	SLID, BPNG
30.	Mr. Eiken Payake	Senior Analyst, Superannuation Unit	SLID, BPNG
31.	Mr. Wesley Monde	Driver, Security Unit	FPMD, BPNG
32.	Mr. Doura Igua	Driver, Security Unit	FPMD, BPNG
33.	Mr. James Sea	Acting Insurance Commissioner	OIC, Department of Treasury
34.	Mr. Timothy Ilave Avaivilla	Assistant Insurance Commissioner Policy	OIC, Department of Treasury

Table I. Papua New Guinea: Financial Soundness Indicators, 2022Q1–2022Q4

	2022Q1	2022Q2	2022Q3	2022Q4
Core FSIs				
Regulatory capital to risk-weighted assets	36.3	37.6	38.4	30.4
Tier 1 capital to risk-weighted assets	32.9	31.9	30.9	21.9
Nonperforming loans net of provisions to capital	9.9	10.1	10.1	9.8
Tier 1 capital to assets	13.4	13.2	12.6	9.1
Nonperforming loans to total gross loans	6.0	6.3	6.2	4.8
Provisions to nonperforming loans	41.8	41.0	38.9	39.6
Return on assets	6.0	5.8	5.4	3.9
Return on equity	29.7	37.0	36.0	30.0
Interest margin to gross income	64.7	64.0	63.9	63.9
Noninterest expenses to gross income	39.6	39.9	41.3	44.3
Liquid assets to total assets	19.7	17.4	19.9	22.5
Liquid assets to short-term liabilities	26.2	23.1	26.2	28.6
Net open position in foreign exchange to capital	15.9	13.9	9.6	20.6
Additional FSIs				
Deposit takers				
Large exposures to capital	58.6	48.9	59.5	85.5
Gross asset position in financial derivatives to capital	0.0	0.0	0.0	0.0
Gross liability position in financial derivatives to capital	0.0	0.0	0.0	0.0
Trading income to total income	13.6	11.2	10.9	3.0
Personnel expenses to noninterest expenses	39.4	40.7	39.8	41.0
Spread between reference lending and deposit rates (bp)	947.7	921.4	904.0	744.7
Foreign-currency-denominated loans to total loans	4.2	4.2	2.8	1.9
Foreign-currency-denominated liabilities to total liabilities	2.9	2.5	3.0	2.6
Credit growth to private sector	3.9	2.2	6.2	4.6
Other financial corporations				
OFCs' assets to total financial system assets: total OFCs	94.5	94.6	94.5	95.2
OFCs' assets to total financial system assets: Insurance Corporations	92.6	92.8	92.8	91.7
OFCs' assets to total financial system assets: Pension Funds	1.8	1.8	1.8	1.8
Real estate markets				
Residential real estate loans to total gross loans	15.3	15.2	15.2	15.2
Commercial real estate loans to total gross loans	4.4	4.3	4.1	4.0

Source: BPNG and IMF staff.

APPENDIX C. COMPARISON OF FSIS BEFORE AND AFTER THE TECHNICAL ASSISTANCE

Indicator	Main changes
Regulatory capital to risk-weighted assets	Numerator: No change Denominator: No change
Tier 1 capital to risk-weighted assets	Numerator: No change Denominator: No change
Nonperforming loans net of provisions to capital	Numerator: No change Denominator: No change
Tier 1 capital to assets	Numerator: No change Denominator: No change
Nonperforming loans to total gross loans	Numerator: No change Denominator: include accrued interests
Provisions to nonperforming loans	New FSI compiled during the mission Numerator: Specific provisions Denominator: Nonperforming loans
Return on Assets (ROA)	Numerator: Annualized net income before tax Denominator: No change
Return on Equity (ROE)	Numerator: Annualized net income after tax Denominator: No change
Interest margin to gross income	Numerator: No change. Denominator: Extraordinary income is included
Noninterest expense to gross income	Numerator: No change Denominator: Extraordinary income is included
Liquid assets to total assets	Numerator: No change Denominator: No change
Liquid assets to short-term liabilities	Numerator: No change Denominator: No change
Net open position in foreign exchange to capital	Numerator: Include on and off-balance sheet exposures using weekly call report **(to be implemented)** Denominator: No change
Large exposures to capital	Numerator: Total exposures above 10 percent of Tier 1 capital **(to be implemented)** Denominator: Tier 1 capital
Gross asset position in financial derivatives to capital	Numerator: No change Denominator: Total regulatory capital

Indicator	Main changes
Gross liability position in financial derivatives to capital	Numerator: No change Denominator: Total regulatory capital
Trading income to total income	Numerator: No change Denominator: Extraordinary income is included
Personnel expenses to noninterest expenses	Numerator: No change Denominator: Extraordinary losses are included
Spread between reference lending and deposit rates (basis points)	New FSI compiled during the mission Numerator: Annualized interest income on loans divided by average loans Denominator: Annualized interest expenses on deposits divided by average deposits (excluding demand deposits)
Customer deposits to total non-interbank loans	Existing FSI to be restated Numerator: Customer deposits include all deposits to nonfinancial corporations, households, and other domestic sector. Also include accrued interests **(to be implemented)** Denominator: Include accrued interests **(to be implemented)**
Foreign-currency-denominated loans to total loans	Numerator: Include accrued interests Denominator: Include accrued interests
Foreign-currency-denominated liabilities to total liabilities	Numerator: No change Denominator: No change
Credit growth to private sector	New FSI compiled during the mission. Credit to private sector include loans and debt securities to private nonfinancial corporations, households, and other domestic sectors **(to be implemented)**
OFCs' assets to total financial assets (including ICs and PFs subsector)	New FSIs compiled during the mission. Numerator: OFC’s Total assets **(to be implemented)** Denominator: Total financial system assets **(to be implemented)**
OFCs' assets to gross domestic product (including ICs and PFs subsector)	New FSI compiled during the mission. Numerator: OFC’s Total assets **(to be implemented)** Denominator: Gross domestic product **(to be implemented)**
Shareholder equity to total invested assets (Life insurance)	New FSI compiled during the mission. Numerator: Capital Denominator: Total invested assets
Return on assets (Life insurance)	New FSI compiled during the mission. Numerator: Annualized Net income before taxes Denominator: Average total assets

Indicator	Main changes
Return on equity (Life insurance)	New FSI compiled during the mission. Numerator: Annualized Net income after taxes Denominator: Average capital and reserves
Liquid assets to estimated pension payments in the next year	New FSI compiled during the mission. Numerator: Liquid assets Denominator: Estimated pension payments in the next year
Return on assets (Pension Funds)	New FSI compiled during the mission. Numerator: Net income before taxes Denominator: Average Total assets
Residential real estate loans to total gross loans	Numerator: Include accrued interests Denominator: Include accrued interests
Commercial real estate loans to total gross loans	Numerator: Include accrued interests Denominator: Include accrued interests

APPENDIX D. FSI METADATA FOR DEPOSIT TAKERS

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.

Method of consolidation

FSIs are compiled for DTs on a CBCSDI (except for credit growth to private sector, which is compiled using Domestic Location (DL) consolidation basis) and for ICs and PFs on an ARBA.

Institutional coverage

The coverage of the FSIs for (i) DTs comprise two subsidiaries of foreign banks and fifteen domestically controlled banks and, (ii) ICs cover four ICs and five NLICs; and (iii) PFs comprise four superannuation funds.

Consolidation adjustments

Intra-group consolidation adjustments are fully reflected for DTs. No adjustments are affected for ICs since insurance laws and regulations require ICs to conduct life and nonlife activities separately.

Residence of institutional units

While the classifications of financial instruments in the consolidated balance sheet of banks are adequate consistent with the 2019 *FSIs Guide*, the classification of counterpart sectors should be realigned with the current framework that was developed by the previous MFS TA missions to ensure greater consistency in the financial institutions data that are reported to the IMF.

Accounting framework

The DTs are required to prepare their financial statements in IFRS. The accounting principles of accrual, time of recording and exchange rate as broadly consistent with IFRS9.

Regulatory framework

The regulatory framework for compiling the capital adequacy ratios of banks follows mainly Basel I Capital Accord. However, some elements of Basel III's leverage ratio requirements have been adopted.

Tier 1 capital comprises permanent shareholders' equity plus disclosed reserves and minority interests in the equity of consolidated subsidiaries which are less than wholly owned, less: goodwill and other intangible assets, future income tax benefits, operating losses carried forward and encumbered assets.

Tier 2 capital consists of current year's interim profits (or losses), undisclosed reserves, asset revaluation reserves, general loan loss provisions, subordinated term debt, and hybrid debt-equity capital instruments. Tier 2 capital is limited to a maximum of 100% of Tier 1 capital.

Total regulatory capital is sum of Tier 1 capital and Tier 2 capital after application of all deductions.

Risk-Weighted Assets are calculated using mostly the Basel I's standardized approach for credit risk.

Nonperforming Loans (NPL) are defined as any portion of principal or interest which is due and unpaid for 90 days or more and interest payments for 90 days or more have been capitalized, refinanced, or rolled over into new loans.

Large exposures are defined in the BPNG's Prudential Standard 1/2011 as the sum of all credit exposures, to a counterparty or group of connected counterparties, whose (aggregate) amount exceeds a 10 percent of capital and reserves.

Credit to private sector include loans to private and public nonfinancial corporations, households and nonprofit institutions serving households (NPISHs) and other residual sector and debt securities issued by nonfinancial corporations consistent with the 2019 *FSIs Guide*.

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

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

Liquid assets consist of cash, deposits with central bank (including cash reserve requirements), placements with commercial banks only

Short term liabilities comprise all debt liabilities which include time deposits that may be maturing beyond three months.

Source data

Source data for compiling FSIs include income and expense statement, balance sheet and other call reports that are needed to compile memorandum and supervisory series for DTs, LICs and PFs.